

### **INFORMATION**

This catalogue provides a presentation of External Change Solutions aiming at enhancing the efficiency, comfort, and operations of ATR aircraft. All the External Change Solutions presented in this catalogue are designed, delivered and supported by our External Design Organizations partners ("External DOA Partners").

All External DOA Partners have notably been selected on their ability to design and certify the External Change Solutions through the relevant authority.

Should you be interested in purchasing any External Change Solution presented in this catalogue, please contact directly the relevant(s) External DOA Partner(s) to request a quotation. All orders will be placed between your company and the relevant External DOA Partner. The Customer Support for each External Change Solution will be also performed directly by the relevant External DOA Partner.

The applicability of any presented External Change Solution depends on aircraft configuration and is equally subject to review by the External DOA Partners. Information on price range, weight change, lead time, and manpower is given as estimated guidelines only, and may be different according to aircraft configuration.

Should none of the available solutions presented in both *ATR Upgrade Services Catalogue* and *ATR External Change Catalogue* fit your needs, please contact your ATR Services Sales Director or place a request on ATRactive Portal for further information.

The provisions (including but not limited to this paragraph 'Information'), facts, pictures and figures provided in this catalogue do not constitute any offer and ATR reserves the right to modify the catalogue and its content at any time without notice and without any liability. ATR and its affiliates have no liability and do not provide any warranty, representation, whether expressed or implied, in contract, by law, statute or otherwise for the description, availability and/or performance of any of these External Change Solutions and in that respect there is no joint and several liability between ATR, its affiliates and the External Partners.

In any event, the External Partner remains exclusively liable for the External Change Solutions sold to your company, including but not limited to for the design definition of the External Change Solution (including definition, configuration, changes and continuing airworthiness). For the avoidance of doubt, ATR and its affiliates have no liability and do not provide any warranty, representation, whether expressed or implied, in contract, by law, statute or otherwise for the External Change Solution or its compatibility with future mandatory or not mandatory modifications. There is no joint and several liability between ATR, its affiliates and the External Partners regarding the External Change Solutions. Aircraft document update and Customer Support are also under the exclusive responsibility of the relevant External Partner.

Latest version available on:



ATRactive > Catalogues & Support > External Changes



### **CONTENTS**



### **INTRODUCTION**

[ Information	2
© Contents	3
Contents	4
User guide	5
Glossary	6
Glossary	7

### **EXTERNAL DOA PARTNERS PRESENTATION**

(G)	Partners regional presence	9
ري	AERO ENGINEERING SERVICES	10
	AKKA TECHNOLOGIES	11
(c)	ECM SKYSERVICES	12
(c)	PMV ENGINEERING	13
(c)	EIRTECH AVIATION SERVICES	14
(G)	RECAERO	15

### **FUSELAGE PROTECTIONS**

(G)	Fuselage protections for unpaved runway operations	17	NEW
[4	Fuselage protections from paved runway FOD	18	NEW



### **CONTENTS**



### **CABIN**

(c)	Reconfiguration of Original & New Look cabins VIP cabin configuration Exit signs replacement Placards and markings replacement Emergency equipment replacement & relocation Automated External Defibrillator installation	20	
(c/>	VIP cabin configuration	21	
<u>(</u>	Exit signs replacement	22	
(c)	Placards and markings replacement	23	
(c/	Emergency equipment replacement & relocation	24	
(c)	Automated External Defibrillator installation	25	NEW
(c)	Floor covering replacement	26	
(c/>	Seats replacement, refurbishing & repair	27	
	Seat covers replacement	28	
(c)	Decorative laminate replacement In-seat power supply	29	
忌	In-seat power supply	30	
ارح)	Oversize luggage in FWD cargo hold	31	
<u>(</u>	Hand sanitizers Attendant handset locking strap Halon free extinguisher for pre-Armonia cabins Standalone Wi-Fi IFE Aircraft powered Wi-Fi IFE	32	
[G)	Attendant handset locking strap	33	NEW
忌	Halon free extinguisher for pre-Armonia cabins	34	
忌	Standalone Wi-Fi IFE	35	
(c/	Aircraft powered Wi-Fi IFE	36	
16	Air-To-Ground cabin connectivity	37	NEW
(c)	SATCOM cabin connectivity	38	NEW
(c)	Partition protections in cargo areas	39	
(£)	SATCOM cabin connectivity Partition protections in cargo areas Multiple medical stretchers transportation	40	
(c/	AFT cargo loading assistance system	41	

### **COCKPIT & AVIONICS**

(G)	Universal cradle for EFB tablets	43	
	LPV approach capability (ROCKWELL XPDR)	44	
(G)	LPV approach capability (ACSS XPDR)	45	
(c)	HF for ferry flights of pre-NAS aircraft	46	NEW
	SATCOM cockpit connectivity	47	NEW

### **EXTERNAL LIVERIES**

(G)	Technical markings	49
(C)	White and customized liveries	50

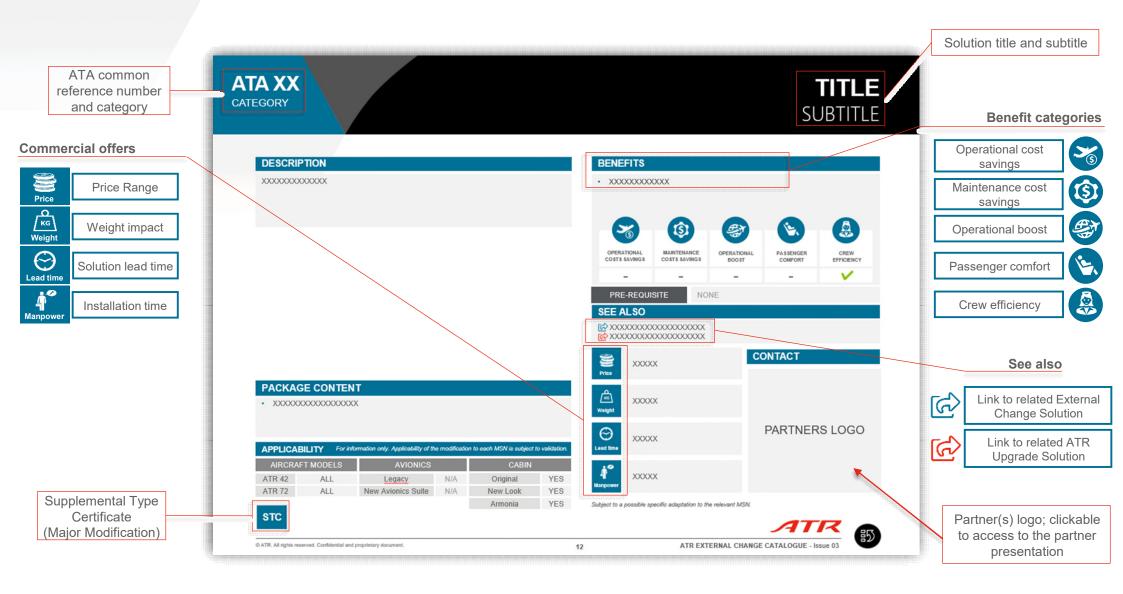
### PAX TO FREIGHTER

	Bulk Freighter Conversion (AKKA BFC)	52	
(c)	Bulk Freighter Conversion (IPR BFC)	53	NEW
(G)	Floor to floor nets with ATR Class E	54	
(G)	Double seat bags	55	
(c)	Large cargo door	56	NEW



### **USER GUIDE**

### SOLUTION PAGE PRESENTATION



# **USER GUIDE** *GLOSSARY*

TERMS & ABBREVIATIONS	DEFINITION
DOA	Design Organization Approval - The recognition that a Design Organization complies with the requirements of EASA Part 21 Subpart J.
POA	Production Organization Approval - The recognition that a Production Organization complies with the requirement of EASA Part 21 Subpart G.
STC	Supplemental Type Certificate - A national aviation authority approved major modification or repair to an existing type certified aircraft, engine or propeller.
SB	Service Bulletin - The document used to communicate details of modifications which can be embodied in aircraft.
EO	Engineering Order - The document that explains how a check can be done and how to plan and keep track of modifications of components.
ICAO	The International Civil Aviation Organization is a specialized agency of the United Nations
NAS	New Avionics Suite. The latest avionics system of ATR aircraft, installed on ATR 42 MSN 859 and ATR 72 MSN 940 and higher (with exceptions), this avionics suite is manufactured by Thales.
LPV	Localizer Performance with Vertical guidance
ADS-B OUT	Automatic Dependent Surveillance-Broadcast
XPDR	Transponder is short for transmitter-responder and sometimes abbreviated to XPDR
RNAV	Area <b>Nav</b> igation is a method of navigation that permits aircraft operation on any desired course within the coverage of station-referenced navigation signals or within the limits of a self-contained system capability, or a combination of these
FOD	Foreign Object Debris - includes any object found in an inappropriate location that, as a result of being in that location, can damage equipment or injure personnel

6

# **USER GUIDE** *GLOSSARY*

TERMS & ABBREVIATIONS	DEFINITION
BFC	<b>B</b> ulk Freight Cargo - Bulk cargo is a shipping term for items that are shipped loosely and unpackaged as opposed to being shipped in packages or containers
LCD	Large Cargo Door – Structural modification that allows to install a larger cargo door than the standard one.
SATCOM	<b>Sat</b> ellite <b>Com</b> munication - Aircraft onboard equipment for SATCOM includes a satellite data unit, a high power amplifier and an antenna with a steerable beam
Wi-Fi	System for connecting electronic equipment such as computers and electronic organizers without using wires
AED	Automated External Defibrillator - Device that automatically analyzes the heart rhythm and that if it detects a problem that may respond to an electrical shock to restore a normal heart rhythm.
SBAS	Satellite-Based Augmentation Systems support wide-area or regional augmentation through the use of additional satellite-broadcast messages.
NEW LOOK	The cabin interiors of ATR aircraft installed prior to the Armonia Cabin interior, installed on ATR 42 MSN 443 and ATR 72 MSN 468 and higher (with exceptions).
ARMONIA	The newest Cabin interiors of ATR aircraft installed on ATR 42 MSN 859 and ATR 72 MSN 958 and higher (with exceptions).
LEGACY	All avionics suite systems embedded on ATR aircraft before New Avionics Suite (NAS).
ACARS	Aircraft Communication Addressing and Reporting System - data exchange between aircraft and flight operations centers or air traffic control
ACD	Aircraft Configuration Data
AISD	Aircraft Information Services Domain







REGIONAL PRESENCE



EXTERNAL PARTNER	LOCATION
AERO ENGINEERING services	FRANCE
AKNA PASSION FOR FECHNOLOGIES	FRANCE, CANADA, DUBAI, SINGAPORE
Engineeling Conception Maintenance	FRANCE
<b>Eirtech</b> Aviation Services	IRELAND, UNITED KINGDOM, SINGAPORE, UNITED STATES
PMV	FRANCE
3ECAP30	FRANCE, BRAZIL





PRESENTATION



### **OVERVIEW**

Aero Engineering Services is specialized in turnkey solutions for aircraft interior retrofit supported by PART 21J and PART 21G approval.

- ENGINEERING AND CERTIFICATION: Specialized in cabin modification design and certification including; LOPA change, textile change, monument refurbishment, livery change, interior and exterior markings change...
- PARTS MANUFACTURING: Manufacturing of all textile parts in the aircraft (seat covers, carpet kits, curtains, pouches, mooring kits, etc.), exterior markings, exterior decor stencils/decals and interior placards.

Aero Engineering Services support you throughout the modification development process:











### **REGIONAL COVERAGE**

- · Worldwide network coverage
- Multi-disciplinary team with wide experience and capability to provide assistance to customers and address all types of projects globally

### **KEY INFORMATION**

- Large range of customers: airlines, MRO, and lessors
- · In-house placards, markings, stencils, decorative films, seats covers, carpet, curtains, pleated curtains and other textile manufacturing
- PART 21J (DOA) approved No. EASA.21J.624
- PART 21G (POA) approved No. FR.21G.0289
- · large suppliers network on kits solution (seats or seats shipset, galleys, closets, partitions, etc.)

### **CONTACTS**



Mr. Raphael DASSE



2 135 Av. du Comminges, 31270 Cugnaux, France



**+** +33 (0)6 52 08 24 42



raphael.dasse@aero-engineering-services.com



www.aero-engineering-services.com



PRESENTATION

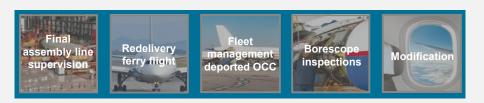


### **OVERVIEW**

AKKA Technologies is an Engineering and Technology Consulting Group:

- · With an Air Transport International Business Line fully specialized in aerospace domain
- With a PART 21J and PART 21G:
  - → EO & STC in the fields of Avionics, Structure, Repair, Cabin (acoustics, air-conditioning, connectivity, electricity, galleys, IFE, lavatories, lighting, monuments, seats...) and liveries, for all A/C types.
  - → Design, Engineering, Certification package, Producing and Supplying of the associated kits, Manual supplements (operation and maintenance).
  - → 10 CVEs (Compliance Verification Engineers), expert in Aerodynamic, Cabin, Avionics, Structure, Flight, Rotorcraft and Environment Protection (noise)
- With an EASA Part M and an EASA Part 145 approvals

AKKA is fully capable of providing global solutions covering the full cycle of services required for major projects.



### **REGIONAL COVERAGE**

Offices in Europe, Africa, Middle-East, Asia and **Americas** 

### **KEY INFORMATION**

- In-house R&D Center to promote innovation and technology transfer
- Part 21J (DOA) approved No. EASA.21J.039
- Part 21G (POA) approved No. FR.21G.0194
- More than 1200 Engineering orders, 20% major STC
- GCAA (UAE) & TCCA (Canada) DOA approved
- · Large range of customers: Manufacturers, Parts Suppliers, Airlines, Lessors
- Leader of Certification Together International Conference, DO254 User Group

### **CONTACTS**



Ms. Mojca SVENSEK



7 Boulevard Henri Ziegler, 31700 Blagnac, France



**+** +33 6 77 24 61 35



mod.quotation.atr.office@akka.eu



www.akka-technologies.com





PRESENTATION



### **OVERVIEW**

ECM is a subsidiary of CRIT group and its expertise activity SKY SERVICES holds EASA Part 21J approval on all types of aircraft.

The SKY SERVICES department relies on a group of technical experts in aircraft modifications and retrofits (cabin, avionics, electrical system and structure).

ECM operates on all types of commercial, business, military and VIP aircraft and offers a customized solution from engineering to certification activities, including associated kit supply, management of Vendors and OEMs, as well as support for integration on aircraft.

ECM's agility and expertise make it possible to offer an optimized solution to operators, airlines and lessors at the best costs. The gain is a reduction in downtime for aircraft in service, and integration of innovative solution.



### **REGIONAL COVERAGE**

ECM support its customer worldwide, from our Skyservices department headquarter in Toulouse, to customer facilities.

### **KEY INFORMATION**

- Founded in 1973, revenues : 25 M €, fully owned subsidiary of CRIT Group (USD 3 billion in revenues)
- PART 21J (DOA) approved No. EASA.21J.464 since 2015
- 400 Experts and engineers, including 50 cabin specialists
- More than 185 aircraft modification programs (SA, LR. and Business Jet)
- More than 115 Retrofits on civil or military aircraft

### **CONTACTS**



Mr. Luc BOYER



2 14 Rue des Briquetiers, 31700 Blagnac, France



**+** +33 (0)5 62 74 16 56



sky-services@ecm-be.com



www.sky-services.ecm-be.com





### PRESENTATION



### **OVERVIEW**

PMV Engineering is an EASA (EU) approved Design Organization (PART 21J) and GCAA (UAE) approved Design Organization for minor changes and STCs.

We provide customized turnkey solutions for :

- Cabin Interiors
- Cabin Systems
- Avionic Modifications
- External Liveries
- Structure, Minor and Major Repairs
- · ATR Pax-to-Freighter conversions (Bulk Freighter with or without Large Cargo door (LCD)) on behalf of ACIA/ IPR Conversions (STC owner)
- · Mods associated kits and parts for small & large aircraft, either in commercial or VIP configuration

Thanks to a strong and long lasting partnership with JVaeroservices, PMV Engineering can support your needs in terms of POA and equipment maintenance requirements.











### **REGIONAL COVERAGE**

- · PMV Engineering works with worldwide aircraft manufacturers, lessors, OEMs, MROs and airlines
- 150 customers around the world
- Operational activities in 50 countries

### **KEY INFORMATION**

- More than 500 Minor and Majors Modifications
- 30 experts in aeronautical domain
- 20 years of involvement in aerospace
- PART 21J (DOA) approved No. EASA.21J.487
- GCAA Design Organization approved No. DOA/132
- PART 21G (POA) with JVaeroservices No. FR.21G.0166
- PART 145 with JVaeroservices No. FR.145.0378

### **CONTACTS**



Mr. Olivier JAN



60 Imp. de Varsovie, 82000 Montauban, France



**+** +33 (0)5 63 03 95 80



contact@pmv-engineering.com



www.pmv-groupe.com

### PRESENTATION



### **OVERVIEW**

Eirtech Aviation Services (EAS) is a world-leading specialist Aviation Services Company providing tailor made engineering services, advanced composite repair services, and asset management solutions that ensure regulatory compliance to International Airlines, Private Operators and Aviation Leasing companies across the globe.

### **ENGINEERING**

### **COMPOSITES**









**MATERIALS** 

**CAMO** 

**TECHNICAL** SERVICES







### **REGIONAL COVERAGE**

- · Eirtech Aviation provides Global coverage to our Customers
- · Headquartered in Shannon, Ireland with offices also based in Dublin, Belfast, London, Las Vegas & Singapore

### **KEY INFORMATION**

- Design Engineering, Production, CAMO, Materials, **Technical Services and Composites**
- EASA, FAA, GCCA and other global aviation approvals as required.
- Part 21J (DOA) approved No. EASA.21J.452 / UK.21J.0087
- Part 21G (POA) approved No. IE.21G.0002
- Turnkey services to support airlines, aircraft leasing companies and OEMS for fleet transitions and modifications

### **CONTACTS**



Mr. Anthony ATTOUMANI



2 154 Shannon Industrial Estate, Co.Clare, Ireland



**J** 00 353 (0)61 471 800



eassales@etas.ie



www.eirtechaviation.ie



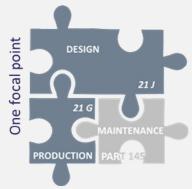
### PRESENTATION



### **OVERVIEW**

Recaero offers one stop services for modifications and repairs on Aircraft and Rotorcrafts. Complete project monitoring: design and production, while insuring short delivery lead-times and customised product.

A team of over 50 engineers and technical experts in charge of Design engineering and manufacturing engineering.



- A/C Survey
- Engineering package (with doc supplement)
- Minor modification approval
- Supplemental Type Certificate (STC) provider
- Working party assistance
- Kits Industrialization
- Kits Manufacturing
- Kits Certification

**EQUIPMENT QUALIFICATION PLACARDS SEATS EMERGENCY EQUIPMENT PROJECT MANAGEMENT TESTING FLOOR COVERING EXTERNAL LIVERY CABIN INTERIOR ENGINEERING PACKAGE ELECTRICAL SYSTEM** 

### **REGIONAL COVERAGE**

- · Worldwide on-site support,
- Offices in Europe, Asia and South America,
- North America to come

### **KEY INFORMATION**

- 30 years of aerospace expertise
- Part 145 (MOA) approved No. FR.145.0746
- Part 21J (DOA) approved No. EASA.21J.664
- Part 21G (POA) approved No. FR.21G.0181
- One stop services for modifications and repairs,
- Experimented and flexible team, project managers acting as single focal point,
- More than 700 professionals working 24/7 to anticipate, design, produce and ship parts

### **CONTACTS**



Mr. Francisco RODRIGUES



Parc techno Delta Sud, 09340 Verniolle, France



doa.requests@recaero.fr

www.recaero.fr



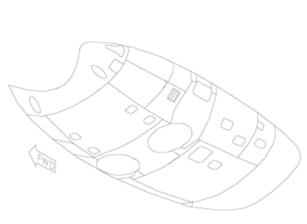
### **FUSELAGE PROTECTIONS**

### FUSELAGE PROTECTION FOR UNPAVED RUNWAY OPERATIONS

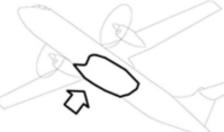
#### **DESCRIPTION**

The solution consists in replacing Marbill® coating proposed in the ATR Service Bulletin by the alternate material 3M Tape. Depending on customer request, the protections can be extended to other areas than the ones suggested in the Service Bulletin. The 3M tape is available in different colors and can be painted (tape not included in solution price).

The ATR Service Bulletin is a mandatory pre-requisite to allow operations on unpaved runways (dry, wet or contaminated) through the update of operational documentation.







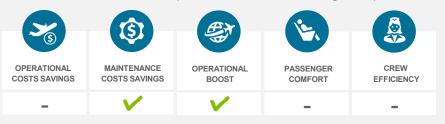
APPLICABILITY	For information only. Applicability of the modification to each MSN is subject to validation.
---------------	---

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	N/A	Original	N/A
ATR 72	ALL	New Avionics Suite	N/A	New Look	N/A
				Armonia	N/A

## STC

#### **BENEFITS**

- Compliance with local regulations
- No panel removal, on-aircraft modification
- Maintenance reduction costs (due to reduction of the damage risks)



PRE-REQUISITE

ATR Service Bulletin to Install protections for operations on unpaved runways

#### **SEE ALSO**

Protection for operations on Unpaved Runways

### **PACKAGE CONTENT**

- STC Package (SB / Installation drawings)
- · Manual supplements

· Instructions for continued airworthiness

CONTACT



From \$ 20.000



21 kg



8 weeks



24 hours







### **FUSELAGE PROTECTIONS**

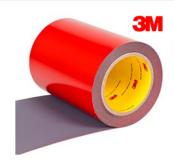
### FUSELAGE PROTECTION FROM PAVED RUNWAY FOD

#### **DESCRIPTION**

The solution consists in the application of 3M tape on areas (except engine components and flight surfaces) to protect it from runway Foreign Object Debris (ice, sand, small debris, etc.). Areas to be protected can be customized (belly fairing, fuselage, MLG bay, etc.). The 3M tape is available in different colors and can be painted (tape not included in solution price).

Note: this solution on its own does not allow operations on Unpaved Runways.







APPLICABILITY	For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AIRCRAFT MODELS AVIONICS		CABIN	
ATR 42	ALL	Legacy	N/A	Original	N/A
ATR 72	ALL	New Avionics Suite	N/A	New Look	N/A
				Armonia	N/A

### **BENEFITS**

- Maintenance reduction costs (due to reduction of the damage risks)
- · Customizable solution depending on customer need



PRE-REQUISITE

NONE

#### **SEE ALSO**

Anti-collision light protection

### **PACKAGE CONTENT**

- STC Package (SB / Installation drawings)
- Manual supplements

 Instructions for continued airworthiness



From \$ 13,000



Depending on configuration



8 weeks



24 hours









# CABIN





**FURNISHINGS** 

### CABIN

### RECONFIGURATION OF ORIGINAL & NEW LOOK CABINS

#### **DESCRIPTION**

Aircraft cabin configuration can be modified to accommodate specific customer choices and operational needs, from high density to comfort configuration. Various solutions with different types of galleys and storages are available.

Configuration of Original and New Look cabins is customizable from color choice to general arrangement.







### **PACKAGE CONTENT**

- Engineering package (SB / EO / Installation drawings)
- Installation kit
- Equipment

- Instructions for continued airworthiness
- · Manual supplements
- **APPLICABILITY** For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	N/A	Original	YES
ATR 72	ALL	New Avionics Suite	N/A	New Look	YES
				Armonia	NO

### **BENEFITS**

- Higher per-flight profits due to increased aircraft capacity
- · Fleet commonality in terms of passenger capacity









**COSTS SAVINGS** 

COMFORT

**EFFICIENCY** 

PRE-REQUISITE

NONE

#### **SEE ALSO**

VIP cabin configuration Cabin reconfiguration for Armonia



On quote



Depending on the configuration



Depending on the configuration



Depending on the configuration

### CONTACT

















**FURNISHINGS** 

## CABIN

### VIP CABIN CONFIGURATION

#### **DESCRIPTION**

Reconfiguring VIP cabin or converting PAX cabin to VIP cabin.

New specific seats, sofas and monuments can be provided as well as refurbished ones.









#### APPLICABILITY For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	N/A	Original	YES
ATR 72	ALL	New Avionics Suite	N/A	New Look	YES
				Armonia	YES

### **BENEFITS**

Improved comfort for specific requirements.



**COSTS SAVINGS** 









CREW EFFICIENCY

PRE-REQUISITE

NONE

#### **SEE ALSO**

Reconfiguration of Original & New Look cabins

### **PACKAGE CONTENT**

- Engineering package (SB / EO / Installation drawings)
- Installation kit
- Equipment

- Instruction for continued airworthiness
- Manual supplements



On quote



Depending on the configuration



Depending on the configuration



Depending on the configuration

CONTACT











**MARKINGS** 

### **CABIN**

### EXIT SIGNS REPLACEMENT

#### **DESCRIPTION**

Replace or modify the exit lenses in the aircraft cabin. The solution is available in various languages and pictograms.









### APPLICABILITY For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	N/A	Original	YES
ATR 72	ALL	New Avionics Suite	N/A	New Look	YES
				Armonia	YES

### **BENEFITS**

- Fleet commonality
- · Compliance to local authorities regulations
- Aircraft transition



PRE-REQUISITE

NONE

#### **SEE ALSO**

Placards & markings replacement

### **PACKAGE CONTENT**

- Engineering package (SB / EO / Installation drawings)
- Installation kit
- Equipment

- Instruction for continued airworthiness
- Manual supplements



On quote



Depending on the configuration



Depending on the configuration



Depending on the configuration

### CONTACT









PLACARDS &

**MARKINGS** 

### PLACARDS & MARKINGS REPLACEMENT

#### **DESCRIPTION**

Replace partial or complete set of interior placards and markings. The solution is available in various languages and pictograms. Placards categories:

- Mandatory placards
- Sanitary measures
- Passengers and Crew recommendations











AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	N/A	Original	YES
ATR 72	ALL	New Avionics Suite	N/A	New Look	YES
				Armonia	YES

### **BENEFITS**

- Fleet commonality
- · Compliance to local authorities regulations
- · Aircraft transition



PRE-REQUISITE

NONE

#### **SEE ALSO**

Exit signs replacement

Decorative laminate replacement

### **PACKAGE CONTENT**

- Engineering package (SB / EO / Installation drawings)
- Installation kit

- · Instruction for continued airworthiness
- Manual supplements



From \$ 3,000



Depending on the configuration



3 weeks



Depending on the configuration













### CABIN

### EMERGENCY EQUIPMENT REPLACEMENT & RELOCATION

#### **DESCRIPTION**

Relocate, replace, remove or add emergency equipment:

- Extinguisher
- Flashlight
- First aid kit Megaphone
- Life vest
- Seat belt

- · Fire fighting glove
- Portable ELT









#### **APPLICABILITY** For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	N/A	Original	YES
ATR 72	ALL	New Avionics Suite	N/A	New Look	YES
				Armonia	YES

### **BENEFITS**

- · Optimize equipment disposal in the cabin
- Aircraft transition
- Compliance to local authorities regulations



**COSTS SAVINGS** 









**EFFICIENCY** 

PRE-REQUISITE

NONE

### **SEE ALSO**

Halon free extinguisher for pre-Armonia cabins Halon free extinguisher for Armonia cabins

### **PACKAGE CONTENT**

- Engineering package (SB / EO / Installation drawings)
- Installation kit

- Instruction for continued airworthiness
- Manual supplements



On quote



Depending on the configuration



Depending on the configuration



Depending on the configuration













**EQUIPMENT** /

**FURNISHINGS** 

### AUTOMATED EXTERNAL DEFIBRILLATOR INSTALLATION

#### **DESCRIPTION**

The use of Automated External Defibrillators (AED) is essential to increase the chances of survival in case of a cardiac arrhythmias such as ventricular fibrillation (VF) and nonperfusing ventricular tachycardia (VT) when used in the first 10 minutes.

EASA AMC1 CAT.IDE.A.220 (b) (4) stipulates that the aircraft operators having at least one cabin crew should carry Automated External Defibrillator (AED) on board. This solution consists in the installation of provisions (brackets and placards) to allow the installation of an AED that will not exceed 4 kg.

External DOA Partner will assist you to:

- Select the right model of AED to be installed (example below: Powerheart G5 Model)
- Define the area where the AED shall be installed
- Design the installation kit to secure the AED
- Re-locate other emergency equipment if needed







#### **APPLICABILITY** For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	N/A	Original	YES
ATR 72	ALL	New Avionics Suite	N/A	New Look	YES
				Armonia	YES

### **BENEFITS**

- · Improve medical emergency support on board
- Comply with EASA AMC1 CAT.IDE.A.220











**EFFICIENCY** 

PRE-REQUISITE

NONE

### **SEE ALSO**

Emergency equipment replacement and relocation

### **PACKAGE CONTENT**

- Engineering package (SB / EO)
- · Instructions for continued airworthiness
- · Manual supplements
- · Installation kit
- Equipment



From \$ 3,000



4 kg max.



From 2 weeks



2 hours





Engineering Conception Maintenance



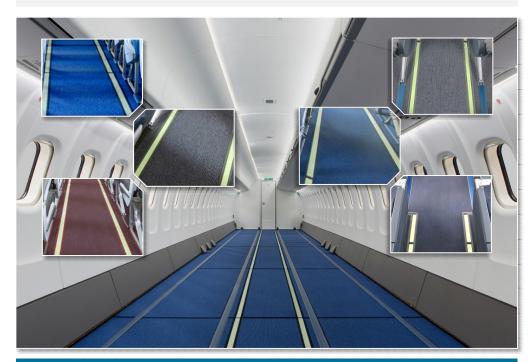


### FLOOR COVERING REPLACEMENT

#### **DESCRIPTION**

Replace or install textile or non-textile floor covering and path markings in passenger cabin, entry area or flight deck.

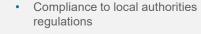
Solution available in various patterns and colors.



AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	N/A	Original	YES
ATR 72	ALL	New Avionics Suite	N/A	New Look	YES
				Armonia	YES

### **BENEFITS**

- · Improve cabin comfort
- · Fleet commonality
- · Aircraft transition





**OPERATIONAL COSTS SAVINGS** 



MAINTENANCE **COSTS SAVINGS** 



OPERATIONAL BOOST



**PASSENGER** COMFORT



CREW **EFFICIENCY** 

PRE-REQUISITE

NONE

### **SEE ALSO**

Seats replacement, refurbishing & repair

Seat covers replacement

### **PACKAGE CONTENT**

- Engineering package (SB / EO / Installation drawings)
- Installation kit

- · Instruction for continued airworthiness
- Manual supplements



On quote



Depending on the configuration



Depending on the configuration



Depending on the configuration













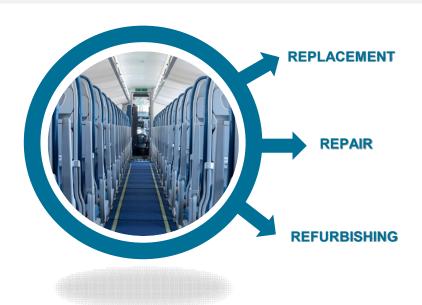
### SEATS REPLACEMENT, REFURBISHING & REPAIR

#### **DESCRIPTION**

The modification offers solutions such as:

- Seats replacement
- Seats refurbishing
- Seats repair
- Seat belt replacement

- Foam replacement
- Seat cushion replacement
- Soft plastic replacement
- Front and rear stud inspection, etc.



<b>APPLICABILITY</b> For information only. Applicability of the modification to each MSN is subject to validation.					
AIRCRA	AFT MODELS	AVIONICS		CABIN	
ATR 42	ALL	Legacy	N/A	Original	YES
ATR 72	ALL	New Avionics Suite	N/A	New Look	YES
				Armonia	YES

#### **BENEFITS**

- · Improve cabin comfort
- · Airline differentiation
- Fleet commonality



**COSTS SAVINGS** 













**EFFICIENCY** 

PRE-REQUISITE

NONE

### **SEE ALSO**

Floor covering replacement Seat covers replacement

### **PACKAGE CONTENT**

- Engineering package (SB / EO / Installation drawings)
- Installation kit

- · Instruction for continued airworthiness
- Manual supplements



On quote



Depending on the configuration



Depending on the configuration



Depending on the configuration















### SEAT COVERS REPLACEMENT

#### **DESCRIPTION**

Replace seat covers (leather or fabric material).

The solution is available in various patterns, quality and colors.







### **APPLICABILITY** For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	N/A	Original	YES
ATR 72	ALL	New Avionics Suite	N/A	New Look	YES
				Armonia	YES

### **BENEFITS**

- · Improve cabin comfort and passenger experience
- · Fully customizable
- Fleet commonality



PRE-REQUISITE

NONE

### **SEE ALSO**

Floor covering replacement

Seats replacement, refurbishing & repair

### **PACKAGE CONTENT**

- Engineering package (SB / EO / Installation drawings)
- Installation kit
- Flammability test plan & report
- Instruction for continued airworthiness
- Manual supplements



On quote



Depending on the configuration



Depending on the configuration



Depending on the configuration











### DECORATIVE LAMINATE REPLACEMENT

#### **DESCRIPTION**

Replace or install decorative films onto cabin partitions and monuments.

This solution is available in various colors, and customized decoration. In addition, a large option of suppliers can be advised or proposed by the operator.





### **APPLICABILITY** For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	N/A	Original	YES
ATR 72	ALL	New Avionics Suite	N/A	New Look	YES
				Armonia	YES

### **BENEFITS**

- Provide a fully customizable interior look
- Fleet commonality
- Aircraft transition



PRE-REQUISITE

NONE

### **SEE ALSO**

Placards & Markings replacement

### **PACKAGE CONTENT**

- Engineering package (SB / EO / Installation drawings)
- Installation kit

- Instruction for continued airworthiness
- Manual supplements



On quote



Depending on the configuration



2 weeks



24 hours













## CABIN IN-SEAT POWER SUPPLY

#### **DESCRIPTION**

Install in-seat power supply (USB port) and associated aircraft hardware.











### APPLICABILITY For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	N/A	Original	YES
ATR 72	ALL	New Avionics Suite	N/A	New Look	YES
				Armonia	YES

### **BENEFITS**

- Provide an additional function to passengers
- Enhance air travel experience



PRE-REQUISITE

NONE

#### **SEE ALSO**

NONE

### **PACKAGE CONTENT**

- Engineering package (SB / EO / Installation drawings)
- Installation kit
- Equipment

- Instruction for continued airworthiness
- Manual supplements



On quote



Depending on the configuration



Depending on the configuration



Depending on the configuration

### CONTACT













**FURNISHINGS** 

### **CABIN**

### OVERSIZE LUGGAGE IN FORWARD CARGO HOLD

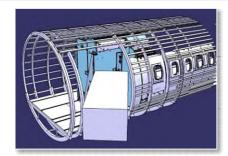
#### **DESCRIPTION**

Modify layout arrangement in forward cargo hold in all cabins in order to transport massive objects such as ;

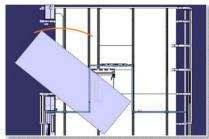
- Coffins (Compliance to IATA Airport Handling Manual (AHM)
- · Surfboard and longboard
- Ski equipment

- Musical instruments
- Bicycles (Mountain bikes)
- · Etc.





**COFFIN LAYOUT** 



**SPORTS EQUIPMENT** 

APPLICABILITY	For information only. Applicability of the modification to each MSN is subject to validation.
---------------	---

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	N/A	Original	YES
ATR 72	ALL	New Avionics Suite	N/A	New Look	YES
				Armonia	YES

#### **BENEFITS**

- Improve transportation capabilities for specific requirements
- Enhanced logistics management



PRE-REQUISITE

NONE

### **SEE ALSO**

### **PACKAGE CONTENT**

- Engineering package (SB / EO / Installation drawings)
- Installation kit
- Equipment

- Instruction for continued airworthiness
- Manual supplements



On quote



Depending on the configuration



Depending on the configuration



Depending on the configuration











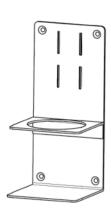
STC

# **CABIN**HAND SANITIZERS

#### **DESCRIPTION**

Install different wall mounted hand sanitizers protecting Crew and Passengers. Multiple installation locations available in cabin, lavatories, and cockpit.

In option, foam sanitizer can be proposed. This product is Mild, Non-Toxic, Non-Irritant, Non-Hazardous, Ecologically Harmless and alcohol free.





APPLICABILITY For information only. Applicability of the modification to each MSN is subject to validation.						
AIRCRA	AFT MODELS	AVIONICS	AVIONICS CABIN			
ATR 42	ALL	Legacy	N/A	Original	YES	
ATR 72	ALL	New Avionics Suite	N/A	New Look	YES	
				Armonia	YES	

#### **BENEFITS**

- Easy sanitization of Passengers and Crew
- · As effective as Alcohol based gel
- · Airline Branding available on Bottles



PRE-REQUISITE

NONE

#### **SEE ALSO**

Hand sanitizer bottle holder

### **PACKAGE CONTENT**

- Engineering package (SB / EO)
- Instructions for continued airworthiness
- Manual supplements
- Installation kit



From \$ 6,000 per fleet



~ 250g



2 weeks



1 hour







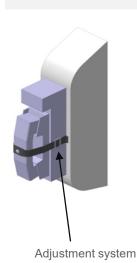


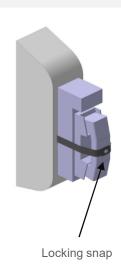
## ATTENDANT HANDSET LOCKING STRAP

### **DESCRIPTION**

The modification consists in the installation of an adjustable strap between the monument and the Attendant Handset. This strap will secure the Handset during cargo loading and unloading phases in the rear cargo bay. No monument modification needed for the installation. Associated placard will be installed next to the equipment.

Strap is equipped with an adjustment system to fit all Handset configurations.







APPLICABILITY	For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	N/A	Original	YES
ATR 72	ALL	New Avionics Suite	N/A	New Look	YES
				Armonia	YES

#### **BENEFITS**

- Preventing handset from falling during loading/unloading phases in rear cargo bay.
- Reducing cost maintenance



PRE-REQUISITE

NONE

#### **SEE ALSO**

NONE

### **PACKAGE CONTENT**

- Engineering package (SB / EO)
- Instructions for continued airworthiness
- · Manual supplements
- Installation kit

Price

From \$ 650



~ 250g



2 weeks



1 hour





Subject to a possible specific adaptation to the relevant MSN.





NEW

**CABIN** 

### HALON FREE EXTINGUISHER FOR PRE-ARMONIA CABINS

#### **DESCRIPTION**

Under ICAO recommendations, the use of halon in aircraft fire extinguishing application will no longer be authorized by 2025 due to environmental concerns.

The modification consist in replacing the cabin halon fire extinguishers by portable Ümlaut extinguishers (P3 Hafex).

Note: The upgrade needs a modification of diffusers and adaptors in AFT cargo aera.

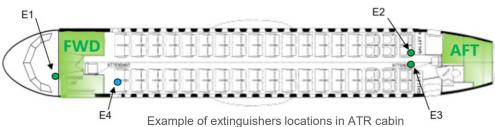


New receptacle in AFT cargo partition



New Look

Armonia



<b>APPLICABILITY</b> For information only. Applicability of the modification to each MSN is subject to validation.						
AIRCR	AIRCRAFT MODELS AVIONICS CABIN					
ATR 42	ALL	Legacy	N/A	Original	YES	

New Avionics Suite



**ATR 72** 

#### **BENEFITS**

- Compliance with ICAO recommandation and local authorities regulations
- Environment friendly









COMFORT

**EFFICIENCY** 

PRE-REQUISITE

NONE

### **SEE ALSO**



Cabin halon free extinguisher for Armonia

### **PACKAGE CONTENT**

- Engineering package (SB / EO)
- · Instructions for continued airworthiness
- · Manual supplements
- Installation kit



On quote



Depending on the configuration



Depending on the configuration



Depending on the configuration











Subject to a possible specific adaptation to the relevant MSN.





YFS

NO

**FURNISHINGS** 

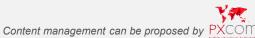
## CABIN STANDALONE Wi-Fi IFE

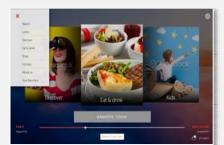
#### **DESCRIPTION**

In-Flight Entertainment (IFE) system is one among many services that on-board Wi-Fi servers can deliver. PMV can support you at every stage of your IFE project with a turnkey solution, starting with your high level requirements to daily management on your behalf.

More in details, closely with PMV, you will be able to:

- Select the most accommodate standalone Wi-Fi IFE product for your needs;
- Customize passengers and crew portals to appear on Personal Electronic Devices;
- Select and manage the contents of your IFE system with movies, audio, magazines...
- Monetize your contents through commercial partnership as an example;







The applied methodology encompasses a P&L projection to ensure a maximized ROI federating all the involved stakeholders.



Example of Hardware proposed:

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	YES	Original	YES
ATR 72	ALL	New Avionics Suite	YES	New Look	YES
				Armonia	YES

#### **BENEFITS**

- Elevated passenger experience
- Boost your airline ancillary revenues
- Operational cost savings











CREW **EFFICIENCY** 



PRE-REQUISITE

ATR IFE wireless streaming capability

#### **SEE ALSO**



Aircraft Powered Wi-Fi IFE

ATR Aircraft tolerance with T-PED Wi-Fi

### **PACKAGE CONTENT**

- · Server and installation kits when applies
- Software portals
- Consulting



On quote



minimum 2.0 kg per box + 0.7 kg batteries when applies



Max 16 weeks



Depending on the configuration

CONTACT



Subject to a possible specific adaptation to the relevant MSN.





**APPLICABILITY** 

**FURNISHINGS** 

### CABIN

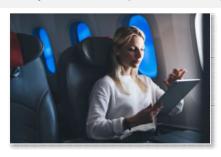
### AIRCRAFT POWERED Wi-Fi IFE

#### **DESCRIPTION**

aWAP-MS (aircraft Wireless Access Point with Media Server) provides aircraft cabin with Wi-Fi coverage through a Wireless Local Area Network while hosting data. aWAP-MS allows operators to offer crew and passengers, various Data and In-Flight Entertainment (IFE) Services, while minimizing investments and optimizing their profits:

- Passengers through their own device (Bring Your Own Device (BYOD) concept)
- Crew through dedicated devices (tablets, ...)

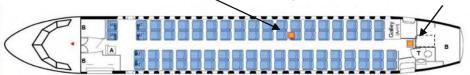
aWAP-MS is a very high throughput, compact and lightweight "all in one" equipment with 1TB Storage Capacity. The system can also provide Internet connectivity by coupling Satcom system. Contents providers can be proposed in the package.





aWAP-MS recommended location (A/C powered)

Control Panel recommended location



#### **APPLICABILITY** For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	YES	Original	YES
ATR 72	ALL	New Avionics Suite	YES	New Look	YES
				Armonia	YES

### **BENEFITS**

- Elevated passenger experience
- Easy and Quick Installation (Overnight)
- Optimized end to end Network Security (WPA3)
- Easy set-up



**COSTS SAVINGS** 









PASSENGER COMFORT

**EFFICIENCY** 







PRE-REQUISITE

ATR IFE wireless streaming capability

#### **SEE ALSO**

Satcom cabin connectivity

ATR Aircraft tolerance with T-PED Wi-Fi

### **PACKAGE CONTENT**

- Engineering package (SB / EO)
- Installation kit
- Equipment (aWAP-MS)

- Instructions for continued airworthiness
- Manual supplements



From \$ 25.000



< 10kg



Max. 4 months



10 hours









NEW

# AIR TO GROUND CABIN CONNECTIVITY

#### **DESCRIPTION**

Air-To-Ground technology means your transmissions are travelling across shorter distances to and from the aircraft than satellite-based systems. Coupled with innovative antenna technologies, beamforming and a unique network architecture, this translates to very low latency for today's cloud-based applications and services including, videoconferencing, VPN access, streaming, aircraft telematics, large data transfers and

The modification consists in the installation of two antennas and one aircraft base radio. This system will provide aircraft connectivity but it must be connected to a Wi-Fi router to allow passengers to connect their personal devices (see Aircraft Powered Wi-Fi IFE available in this catalogue).

Today, the only 4G LTE available network is in the United States but other countries are deploying such network.



#### **APPLICABILITY** For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS	AVIONICS CABIN		
ATR 42	ALL	Legacy	YES	Original	YES
ATR 72	ALL	New Avionics Suite	YES	New Look	YES
				Armonia	YES

#### **BENEFITS**

- Elevated passenger experience
- Optimized end-to-end network
- High speed connectivity



PRE-REQUISITE

ATR IFE wireless streaming capability

#### **SEE ALSO**

Aircraft Powered Wi-Fi IFE

ATR Aircraft tolerance with T-PED Wi-Fi

#### **PACKAGE CONTENT**

- Engineering package (SB / EO)
- Installation kit

- Instructions for continued airworthiness
- Manual supplements



From \$ 125,000



< 10kg



Max. 4 months



50 hours





Subject to a possible specific adaptation to the relevant MSN.





NEW

# SATCOM CABIN CONNECTIVITY

#### **DESCRIPTION**

This solution consists in the installation of a Satcom system that will bring internet connectivity to the passengers.

COBHAM **Aviator 600SP** is a 2 channel Swift Broadband system that provides in-flight connectivity access to internet for email, text messages, Voice-calls Over IP and many other applications. This is a Class 7 L-band solution that allows up-to 664 Kbps (2 x 332Kbps) data rate over Inmarsat Network ensuring high reliability and worldwide coverage.

This system will provide aircraft connectivity but it must be connected to a Wi-Fi router to allow passengers to connect their personal devices. The Aircraft Powered Wi-Fi IFE solution is also available in this catalogue



<b>APPLICABILITY</b>	For information only. Applicability of the modification to each MSN is subject to validation.
----------------------	---

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	YES	Original	YES
ATR 72	ALL	New Avionics Suite	YES	New Look	YES
				Armonia	YES

#### **BENEFITS**

- Elevated passenger experience
- Optimized end-to-end network



PRE-REQUISITE

ATR IFE wireless streaming capability

#### **SEE ALSO**

Aircraft Powered Wi-Fi IFE

ATR Aircraft tolerance with T-PED Wi-Fi

#### **PACKAGE CONTENT**

- Engineering package (SB / EO)
- Installation kit
- Equipment (aWAP-MS)

- Instructions for continued airworthiness
- Manual supplements



From \$ 150,000



20 kg



4 months



60 hours





Subject to a possible specific adaptation to the relevant MSN.





**FURNISHINGS** 

# **CABIN**

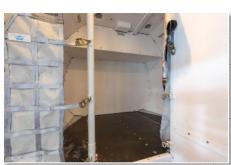
# PARTITION PROTECTIONS IN CARGO AREAS

#### **DESCRIPTION**

This solution consist in the installation of:

- Protection against impact on partitions in both AFT and FWD cargo areas
- Panel edge caps to the Forward Cargo Hold panel exposed edges







APPLICABILITY	For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	N/A	Original	YES
ATR 72	ALL	New Avionics Suite	N/A	New Look	YES
				Armonia	YES

#### **BENEFITS**

- Partitions protected against luggage impacts
- · Reduce repair rate on partitions



PRE-REQUISITE

NONE

#### **SEE ALSO**

Cargo area floor covering

#### **PACKAGE CONTENT**

- Engineering package (SB / EO)
- Installation kit
- Equipment in option (Stretchers)
- Instructions for continued airworthiness
- Manual supplements



On quote



Depending on configuration



Depending on configuration



Depending on configuration













# MULTIPLE MEDICAL STRETCHERS TRANSPORTATION

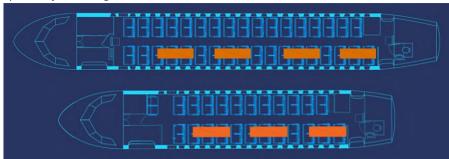
#### **DESCRIPTION**

During sanitary crisis, operators may face a need for more than a single stretcher aboard the Aircraft. This modification allows the installation from 1 to 3 stretcher carriers aboard ATR42 and from 1 to 4 in an ATR72 for medical evacuation flights.

The stretchers must be qualified for ATR42/72 through an ETSO. PMV Engineering can recommend airworthy equipment.

Emergency equipment layout, flight crew and cabin crew procedures are adapted to these medical evacuation flights that allows medical crew to be next to the patient.

#### Example of layout configuration :







#### Example of Stretchers:

APPLICABILITY For info			mation only. Applicability of th	ne modificatio	on to each MSN is subject to	validation.
AIRCRAFT MODELS		AFT MODELS	AVIONICS		CABIN	
	ATR 42	ALL	Legacy	N/A	Original	YES
	ATR 72	ALL	New Avionics Suite	N/A	New Look	YES
					Armonia	YES

#### **BENEFITS**

- Several evacuations are possible simultaneously
- Easy and Quick Installation above the passenger seats



PRE-REQUISITE

NONE

#### **SEE ALSO**

ATR Service Bulletin to install foldable bulkhead

#### **PACKAGE CONTENT**

- Engineering package (SB / EO)
- Installation kit
- Equipment in option (Stretchers)
- Instructions for continued airworthiness
- Manual supplements







#### CONTACT



Subject to a possible specific adaptation to the relevant MSN.





**FURNISHINGS** 

# **CABIN**

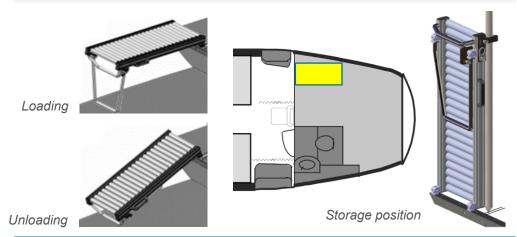
# AFT CARGO LOADING ASSISTANCE SYSTEM

#### **DESCRIPTION**

The cargo Loading Assistance System allows easier loading and unloading of the AFT cargo compartment for both ATR 42 and ATR 72 aircraft models. This solution permits to convey the luggages from the service door to the upper rear cargo area bay.

During flight phases, the system should be tied in a storage position. This roller conveyor system will be carried onboard with low impact on Weight & Balance.

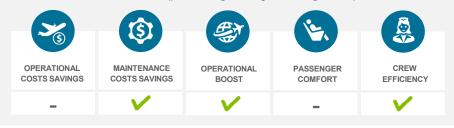
- Improved working conditions: Efficient system inclination for loading & unloading / Storage on existing nets masts
- Money savings: Loading time optimization
- Lower maintenance: Proven reliability
- Low impact on Weight & Balance (less than 10 Kg)



AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	N/A	Original	YES
ATR 72	ALL	New Avionics Suite	N/A	New Look	YES
				Armonia	YES

#### **BENEFITS**

- · Improved working conditions for ground handling staff
- Loading time optimization
- Lower maintenance costs (preventing damages in cargo area)



PRE-REQUISITE

NONE

#### **SEE ALSO**

Partition protections in cargo areas

#### **PACKAGE CONTENT**

- STC Package (SB / Installation drawings)
- Installation kit

- Manual supplements
- Instructions for continued airworthiness



CONTACT











# UNIVERSAL CRADLE FOR EFB TABLETS

#### **DESCRIPTION**

Install a flexible, versatile, fixed cockpit mounting solution for EFB Class III.

The move towards the Electronic Flight Bag (EFB) has driven the demand for safe, secure mounting options for iPads and other tablet devices in the working cockpit area for both Captain and First Officer.

In option, installation of dual USB outlets (15w & 60w) in the cockpit (Captain and F/O). These dual USB ports (A and/or C) can be used to charge portable electronic devices (PEDs) i.e. iPads or other equivalent tablet devices being used for Electronic Flight Bag (EFB).









#### **APPLICABILITY** For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	YES	Original	N/A
ATR 72	ALL	New Avionics Suite	YES	New Look	N/A
				Armonia	N/A

#### **BENEFITS**

- Large range of tablet compatibility
- · Easy to use last models of tablet without aircraft modification







**OPERATIONAL** BOOST



**PASSENGER** COMFORT



**EFFICIENCY** 



PRE-REQUISITE

NONE

#### **SEE ALSO**



EFB CLASS II - IPAD CAPABILITY

#### **PACKAGE CONTENT**

- Engineering package (SB / EO / Installation drawings)
- Installation kit
- Equipment

- · Instructions for continued airworthiness
- Manual supplements



From \$10.600



- < 1 Kg for Cockpit USB power

< 3 Kg for EFB mount



From 3 weeks



From 5 to 16 hours (depending on configuration)











# LPV APPROACH CAPABILITY (ROCKWELL XPDR)

#### **DESCRIPTION**

LPV (B-RNAV + vertical guidance function) aims at providing precision approach (ILS lookalike) guidance along the Final Approach Segment, it's a Landing support using GPS signal.

In Europe, many airports are decommissioning the ILS ground installation. The LPV is also an operational benefit when airport is not equipped with the ILS system (outside of Europe for example).

The LPV function replaces the ILS Cat1 (200 feet = 61m) → SBAS.

The system is composed of:

- 2 CMA-5024 GPS Landing System Sensor Units (GLSSU) installed in the 85VU avionics shelf
- 2 CMA-5025 Satellite Landing System Control Panels (SLS CP) fitted on the cockpit pedestal.
- 2 Digital / Analogic converters.
- 2 GPS active antennas installed on the top of the fuselage.
- 2 switches to select ILS or SLS signals (fitted on glareshield panel 11VU),
- 2 annunciators to display the GLSSU status (SLS Fault, fitted on glareshield panel).
- 2 connectors to perform the update of SLS databases (installed on the 85VU).





#### APPLICABILITY For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AFT MODELS	AVIONICS		CABIN	
	ATR 42	ALL	Legacy	YES	Original	N/A
	ATR 72	ALL	New Avionics Suite	NO	New Look	N/A
					Armonia	N/A

#### **BENEFITS**

- An operational benefit when airports are not equipped with the ILS system
- Answer to potential new regional mandatory requirement



PRE-REQUISITE

NONE

#### **SEE ALSO**

Solution for New Avionics Suite is available

#### **PACKAGE CONTENT**

- Engineering package (SB / EO / Installation drawings)
- Installation kit
- Equipment

- Instructions for continued airworthiness
- Manual supplements



From \$ 225,000



+17 kg (37.5 lb)



6 months



350 hours











# LPV APPROACH CAPABILITY (ACSS XPDR)

#### **DESCRIPTION**

LPV (B-RNAV + vertical guidance function) aims at providing precision approach (ILS lookalike) guidance along the Final Approach Segment, it's a Landing support using GPS signal.

In Europe, many airports are decommissioning the ILS ground installation. The LPV is also an operational benefit when airport is not equipped with the ILS system (outside of Europe for example).

The LPV function replaces the ILS Cat1 (200 feet = 61m) → SBAS.

The system, compatible with ATR ADS-B OUT solution, is composed of:

- 2 CMA-5024 GPS Landing System Sensor Units (GLSSU) installed in the 85VU avionics shelf.
- 2 CMA-5025 Satellite Landing System Control Panels (SLS CP) fitted on the cockpit pedestal.
- 2 Digital / Analogic converters.
- 2 GPS active antennas installed on the top of the fuselage.
- 2 switches to select ILS or SLS signals (fitted on glareshield panel 11VU),
- 2 annunciators to display the GLSSU status (SLS Fault, fitted on glareshield panel).
- 2 connectors to perform the update of SLS databases (installed on the 85VU).





#### APPLICABILITY For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AFT MODELS	AVIONICS	S CABIN		
	ATR 42	ALL	Legacy	YES	Original	N/A
	ATR 72	ALL	New Avionics Suite	NO	New Look	N/A
					Armonia	N/A

#### **BENEFITS**

- An operational benefit when airports are not equipped with the ILS system
- Answer to potential new regional mandatory requirement



PRE-REQUISITE

ADS-B Out DO260B ATR Solution

#### **SEE ALSO**

Solution for New Avionics Suite is available ADS-B Out DO260B for Legacy Series

#### **PACKAGE CONTENT**

- Engineering package (SB / EO / Installation drawings)
- Installation kit
- Equipment

- Instructions for continued airworthiness
- Manual supplements

# Price

From \$ 170,000



+17 kg (37.5 lb)



6 months



350 hours

#### CONTACT









# TEMPORARY HF FOR FERRY FLIGHTS OF PRE-NAS AIRCRAFT

#### **DESCRIPTION**

Aircraft with no need for HF system during daily operations can require to have a temporary HF system installed during ferry flights for transition or maintenance purpose.

This solution consists in the Installation of a temporary HF system in order to enable ferry flights over desert or oceanic areas in accordance with current ETOPS regulation.

This modification installs a customized HF-9000D system. The equipment are installed on the existing provisions and plugged together using wire harness already terminated.

The pre-requisite for this solution is the HF2 Antenna already installed. Standard lease period is for 21 days.





Modification developed and supported by our DOA partner PMV Engineering

<b>APPLICABILITY</b> For information only. Applicability of the modification to each Management				on to each MSN is subject to	validation.
AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	YES	Original	N/A
ATR 72	ALL	New Avionics Suite	NO	New Look	N/A
				Armonia	N/A

#### **BENEFITS**

- Easy and quick installation / removal
- Easy set-up
- Answer to ETOPS regulation



PRE-REQUISITE

HF2 Antenna installed

#### **SEE ALSO**



Single COLLINS HF 9000 installation

#### **PACKAGE CONTENT**

- Engineering package (SB / EO / Installation drawings)
- Installation kit
- Equipment

- · Instructions for continued airworthiness
- Manual supplements

From \$ 17,000



N/A (temporary installation)



4 weeks



7 hours installation (7h removal)

#### CONTACT



Material Operations spares.project@atr-aircraft.com

+33 (0) 5 62 21 90 34





# SATCOM COCKPIT CONNECTIVITY

#### **DESCRIPTION**

SATCOM refers to the voice and data service that allows an aircraft to communicate, via satellite, with air traffic control and its airline operations centre when outside coverage of conventional ground radar and Very High Frequency (VHF) stations.

This solution consists in installing a Satcom antenna to bring connectivity to the cockpit. The Cobham AVIATOR 200S System is an Inmarsat aeronautical SATCOM system, which provides Inmarsat Swift Broadband Services and cockpit IP data on a single SB channel serving segregated ACD and AISD aircraft network domains. The basic services include:

- 2 x cockpit voice
- ACARS (compatible with ATR ACARS)
- Cockpit IP data (EFB)



<b>APPLICABILITY</b>	For information only. Applicability of the modification to each MSN is subject to validation.
----------------------	---

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	YES	Original	N/A
ATR 72	ALL	New Avionics Suite	YES	New Look	N/A
				Armonia	N/A

#### **BENEFITS**

- Answer to specific regulatory mandates
- Supplement to HF transmissions



PRE-REQUISITE

NONE

#### **SEE ALSO**



ATR Service Bulletin for ACARS installation

#### **PACKAGE CONTENT**

- Engineering package (SB / EO / Installation drawings)
- Installation kit
- Equipment

- · Instructions for continued airworthiness
- Manual supplements



From \$ 120,000



+10 kg



4 months



60 hours

#### CONTACT









# LIVERIES





**MARKINGS** 

# **LIVERIES** TECHNICAL MARKINGS

#### **DESCRIPTION**

Install or replace technical markings on aircraft.

The markings are available in various languages.



#### **APPLICABILITY** For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	N/A	Original	N/A
ATR 72	ALL	New Avionics Suite	N/A	New Look	N/A
				Armonia	N/A

#### **BENEFITS**

- · Improve technical visibility in order to decrease maintenance workloads
- Compliance to local authorities regulations
- · Aircraft transition



PRE-REQUISITE

NONE

#### **SEE ALSO**

White & customized liveries

#### **PACKAGE CONTENT**

- Engineering package (SB / EO / Installation drawings)
- Installation kit

- · Instruction for continued airworthiness
- Manual supplements



On quote





Depending on the configuration



Depending on the configuration



Depending on the configuration













**MARKINGS** 

# LIVERIES

# WHITE & CUSTOMIZED LIVERIES

#### **DESCRIPTION**

Provide liveries to aircraft such as customized livery, special livery, white livery, decals, etc.











#### **APPLICABILITY**

For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	N/A	Original	N/A
ATR 72	ALL	New Avionics Suite	N/A	New Look	N/A
				Armonia	N/A

#### **BENEFITS**

- · Improve airline visibility
- Fleet commonality
- Aircraft transition







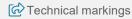


CREW **EFFICIENCY** 

PRE-REQUISITE

NONE

#### **SEE ALSO**



#### **PACKAGE CONTENT**

- Engineering package (SB / EO / Installation drawings)
- Installation kit

- · Instruction for continued airworthiness
- Manual supplements



From \$ 3,000



Depending on the configuration



Depending on the configuration



Depending on the configuration

















# BULK FREIGHTER CONVERSION (AKKA BFC)

#### DESCRIPTION

This modification converts ATR 42 & 72 series to an E-Class "Full cargo" with verticals nets for bulk operation. 65 converted aircraft all around the world with this solution. The system is composed of:

- Vertical restraint nets and fire resistant structural liners (wall and ceiling)
- E-Class conversion (smoke detectors and shut-off valves installation)
- Reinforced cargo floor panels
- Fluorescent or LED lights
- Cargo air distribution outlets
- Placards and marking
- Lightweight aluminum windows





(\*) Depending on ATR series & weight variant

APPLICABILITY	For information only. Applicability of the modification to each MSN is subject to validation

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	YES	Original	YES
ATR 72	ALL	New Avionics Suite	NO	New Look	YES
				Armonia	YES

#### **BENEFITS**

- Maximum use of cargo volume with wall to wall and floor to ceiling loading possible
- · Transversal nets speed up both load and unload process



PRE-REQUISITE

NONE

#### **SEE ALSO**

Floor to floor nets with ATR Class E

#### **PACKAGE CONTENT**

- Engineering package (SB / EO / Installation drawings)
- Installation kit
- Equipment

- Instructions for continued airworthiness
- Manual supplements

# Price

From \$ 285,000



Depending on the configuration



3 weeks



From 1,400 to 1,800 hours





Subject to a possible specific adaptation to the relevant MSN.



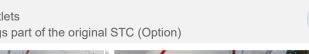


# BULK FREIGHTER CONVERSION (IPR BFC)

#### **DESCRIPTION**

This IPR Conversions (Switzerland) Ltd modification converts ATR42 & ATR72 series to an E-Class "Full cargo" interior with adjustable vertical nets for bulk freight allowing loading & net positioning flexibility. The system is composed of :

- Vertical restraint nets and fire-resistant structural liners (wall and ceiling)
- Class E conversion (1-minute smoke detection system and shut-off valves installation)
- Reinforced cargo floor panels weight option up to 600 kg /m² (standard 400 kg /m²)
- Removal of entire passenger interior for best in class weight saving and operational gains
- LED lights option
- Cargo air distribution outlets
- Aluminium windows plugs part of the original STC (Option)







MAX PAYLOAL	MAYDAYIOAD	ATR 42	from 5.613 to 6.473 kg (from 12.374 to 14.270 lb)
	IVIAX PATLUAD	ATR 72	from 8.423 to 8.723 kg (from 18.569 to 19.230 lb)
	GROSS VOLUME	ATR 42	56 m³ (1.978 cu.ft)
	GRUSS VULUIVIE	ATR 72	75,5 m³ (2.666 cu.ft)

#### **APPLICABILITY** For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	YES	Original	YES
ATR 72	ALL	New Avionics Suite	NO	New Look	YES
				Armonia	YES

#### **BENEFITS**

- · Maximum use of cabin volume with wall to wall and floor to ceiling loading possible
- Transversal nets speed up both load and unload process



PRE-REQUISITE

NONE

#### **SEE ALSO**



#### **PACKAGE CONTENT**

- Engineering package (SB / EO / Installation drawings)
- Installation kit
- Equipment

- · Instructions for continued airworthiness
- Manual supplements



\$ 250,000



Depending on the configuration



3 weeks



Approx. 3,300 hours (5-6 weeks)





Subject to a possible specific adaptation to the relevant MSN.







pr

# FLOOR TO FLOOR NETS WITH ATR CLASS E

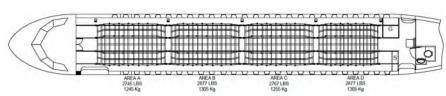
#### **DESCRIPTION**

Floor to floor nets installed on aircraft equipped with Class E after removal of passenger seats, forward partitions and door between cabin and cargo area.

The Service Bulletin also covers floor to floor nets removal, and the re-installation of removed parts and equipment, in order to come back to a commercial cabin enabling the transport of passengers.

The system is composed of:

- Floor to Floor nets (3 nets for ATR42 & 4 nets for ATR72)
- Nets to floor fasteners and placards



**ATR 72** 

PAYLOAD: up to 5,5 tons

**ATR 42** 

PAYLOAD: up to 3,8 tons

© ATR. All rights reserved. Confidential and proprietary document.

STC



#### **APPLICABILITY** For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AFT MODELS AVIONICS		CABIN	
ATR 42	ALL	Legacy	YES	Original	YES
ATR 72	ALL	New Avionics Suite	YES	New Look	YES
				Armonia	YES

#### **BENEFITS**

- · Reversible conversion enabling operators to serve both passenger and cargo markets with the same aircraft
- Quick modification from one configuration to the other



PRE-REQUISITE

ATR Service Bulletins for cargo floor reinforcement and Class E capability.

#### **SEE ALSO**

Bulk freighter conversion (AKKA BFC)

Versatile Cargo/Pax configuration (ATR Class E)

#### **PACKAGE CONTENT**

- Engineering package (SB / EO / Installation drawings)
- Parts list

· Nets installation kit (Floor to Floor nets, nets to floor fasteners, placards)



From \$ 42,000



Depending on the configuration



10 weeks



From 16 to 20 hours

#### CONTACT





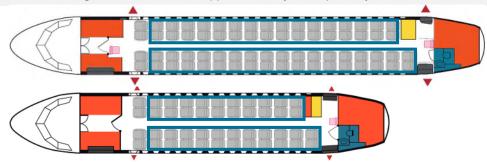
DOUBLE SEAT BAGS

#### **DESCRIPTION**

Installation of double seat bags on passenger seats. Can be easily installed within just few minutes. Typical installation:

- 33 seat bags on ATR 72\*
- 21 seat bags on ATR 42\*

The EASA has revised its deviation for the transport of cargo in passenger cabins. In particular with regards to the extended approval validity date up to July 31, 2022



\* additional configurations can be studied





Cabin Crew required

ATR 72
PAYLOAD : up to 7,4 tons

ATR 42

PAYLOAD: up to 5,3 tons



#### APPLICABILITY For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	YES	Original	YES
ATR 72	ALL	New Avionics Suite	YES	New Look	YES
				Armonia	YES

#### **BENEFITS**

- Easy and quick solution for cargo transportation in passenger compartment without seats removal.
- · No Class F needed



PRE-REQUISITE

NONE

#### **SEE ALSO**

Floor to floor nets with ATR Class E

#### **PACKAGE CONTENT**

- Engineering package (SB / EO / Installation drawings)
- · Seat bags kits

- Instructions for continued airworthiness
- Manual supplements



From \$40,000



Depending on the configuration



4 weeks



2 to 3 hours













### LARGE CARGO DOOR

#### **DESCRIPTION**

This IPR Conversions (Switzerland) Ltd modification provides ATR operators and lessors with ATR42 and ATR72 pax-to-LCD freighter conversions. The conversion features a Large Cargo Door operated by an independent hydraulic system that will allow to load large or oversized single pieces such as LD3 containers or palletised or loose load freight. The wide cross section combined with the LCD makes the ATR the ideal commuter for cargo operators, for an integrated solution in the 5-9 tons market. Optional installation of the Ancra Cargo Loading System allowing palletised solutions with interlining capabilities. Key attributes are :

- 272% larger door opening compared to standard door with 110° door opening with a 1,05 m sill height (41") and hydraulically actuated door
- 9G forward net cargo barrier: hold safety system
- Integrated auxiliary door to allow crew access on loaded aircraft
- Class E conversion (1-minute smoke detection system and shut-off valves installation)
- Reinforced cargo floor panels weight option up to 600 kg/m² (standard 400 kg/m²)
- Removal of entire passenger interior including lavatory/wiring bundles/air condition ducts for weight saving operational gains
- · Aluminium windows plugs proposed as an option





#### APPLICABILITY For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	2 ALL	Legacy	YES	Original	YES
ATR 72	2 ALL	New Avionics Suite	NO	New Look	YES
	 			Armonia	YES

#### **BENEFITS**

- Max cabin volume with wall to wall and floor to ceiling loading possible
- Includes all the benefits of the BFC structural tube
- · Operating Empty Weight reduced to around 13.000 kg



PRE-REQUISITE

NONE

#### **SEE ALSO**

Bulk freighter conversion (IPR BFC)

Versatile Cargo/Pax configuration (ATR Class E)

#### **PACKAGE CONTENT**

- Parts list
- Installation Kits
- · Operational Manuals update

 Engineering package (SB / EO / Installation drawings)



\$ 1,750,000



Depending on the configuration



3 weeks



Approx. 12.000 hours (~4/5 months)

Subject to a possible specific adaptation to the relevant MSN.

#### **CONTACT**











#### **ATR**

1, Allée Pierre Nadot

31712 Blagnac Cedex - France

T: +33 (0)5 62 21 62 21

F: +33 (0)5 62 21 68 00







atraircraft atraircraft.com atraircraft





