

# CSD – CABIN SAFETY DESIGN

Aircraft interior & exterior modifications and changes





# SA DESIGN

SA Design - part of The SA Group, develops and designs complex structural and electrical complete turn-key avionics modifications for basically any application and is involved in complete aircraft nose to tail engineering programs.

CSD has been part of the approved scope of SA Design for years, and in order to put more focus and experience on this part of our business, we have built a CSD Competence Center where we can focus 100% on CSD related programs and Customers. Our CSD Competence Center is located close to Vienna, Austria.



THE SA GROUP IS REPRESENTED IN **9** COUNTRIES, ON **13** LOCATIONS

MORE THAN **40** YEARS OF EXPERIENCE WITH AVIONICS SOLUTIONS

MORE THAN **1.000** CERTIFICATION PACKAGES AND STC'S DEVELOPED

WORK PERFORMED ON MORE THAN **250** DIFFERENT AIRCRAFT TYPES

WE PRODUCE HIGH QUALITY INSTALLATION **KITS** IN-HOUSE

The Design & Engineering Department develops various essential documents for certification of avionics and cabin safety related modifications (as a basis for EASA, FAA, military or alternative authorities' approval), including:

- Technical Orders
- Certification Programs
- Cockpit Layouts
- Wiring Diagrams
- Structural Drawings
- Structural Strength Calculations
- Compliance Records
- Load Analysis
- Weight and Balance Calculations
- Ground and Flight Test Procedures
- Continuous Airworthiness
- Flight Manual Supplements
- EMI Assessments

All the above and other relevant documentation can be performed by The SA Group to certify and complete any modification of larger as well as smaller aircrafts and helicopters.

A skilled team of engineers are spread all over The SA Group locations around the world, and our engineers have extensive experience of 40 years+ within the avionics business. The SA Group continues to train and keep the staff up to date with the current requirements and knowledge on the latest equipment, avionics and concepts within the area of avionics and airborne electronics.

Our engineering team are ready to take on any avionics or aircraft electronics challenge.

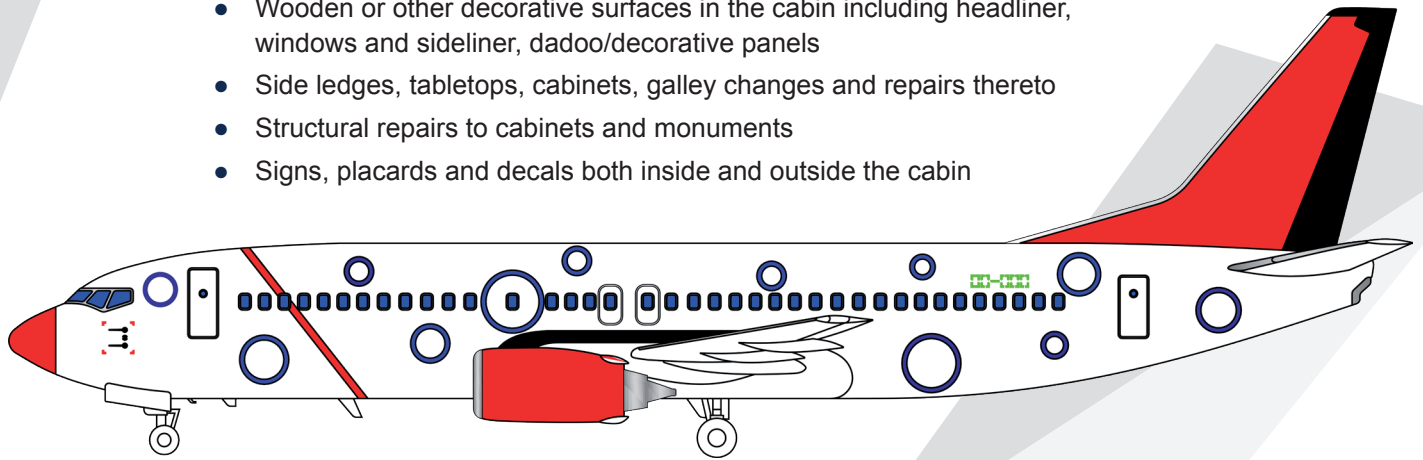




# CABIN SAFETY DESIGN

## EXECUTIVE/BUSINESS JET CABIN REFURBISHMENT

- We provide customised solutions for our Executive/Business Jet operators who require repairs or changes done to their exclusive cabins.
- Typical changes or repairs would include but are not limited to work on current interior such as:
  - Seat cushion/dress cover changes
  - Carpets changes
  - Seat repairs
  - Protection covers for seats, carpets and other visible surfaces
  - Wooden or other decorative surfaces in the cabin including headliner, windows and sideliner, dadoo/decorative panels
  - Side ledges, tabletops, cabinets, galley changes and repairs thereto
  - Structural repairs to cabinets and monuments
  - Signs, placards and decals both inside and outside the cabin



## CUSTOMISED CABIN LAYOUTS

- Special mission equipment installation including related cabin modifications
- Large (temporary) system or equipment installations in the cabin
- Special mission related installation such as operator seats, restricted emergency exit egress due to cabinets/consolas etc.

## AIRCRAFT PAINT FINISH, LIVERY CHANGES, PLACARDS

- Signs, placards and decals customised to the required language
- We provide production support of such signs, placards and decals may be possible (equipped with a CoC or a Form 1 as appropriate)
- External paint schemas, Livery changes designed, produced and provided as kits (as applicable)
- Design for the application of high performance aviation foil material designed for durability and capable to be applied on large commercial aircraft
- Flag & registration mark kits



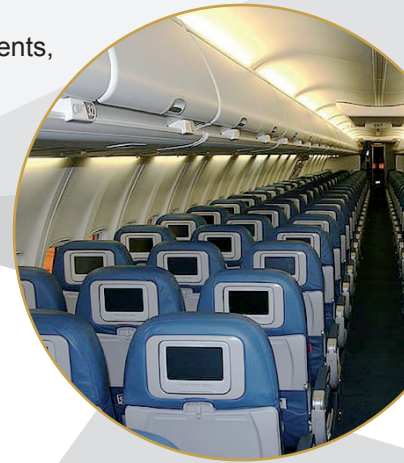


# DESIGN & ENGINEERING

## LOPA CHANGES ON COMMERCIAL AIRLINERS

(Layout of Passenger Accomodation)

- Addressing required cabin re-arrangements to cover new seat arrangements, class seating changes and similar other changes
- Seat changes including related compliance demonstration
- Changes to Emergency Equipment location
- Modification instructions provided to customised standards



## CARGO MODIFICATIONS

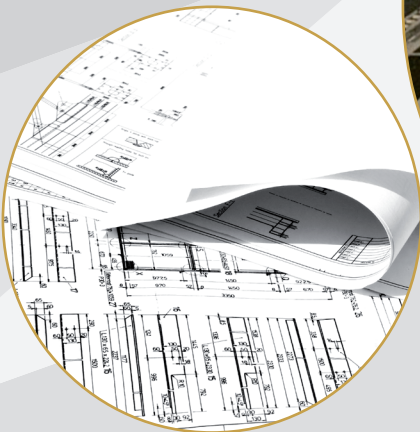
- Support OEMs to develop cargo related modifications to aircraft or aircraft systems and/or to related ULD's on aircraft level
- Changes to the cargo compartment based on customer request

## DOCUMENTATION CHANGES

- Changes to cabin manuals related to LOPA or changes which were not previously entered into the manuals
- Proposals for MMEL entries on cabin interior items
- Amendments to the W&B Manual of the related aircraft

## FLIGHT TEST SUPPORT

- We support flight test activity for the cabin change, if required



# BUSINESS AREAS OF THE SA GROUP

## WORLDWIDE SERVICE AND SUPPORT

The customer base is geographically spread all over Europe, Africa, CIS, the Middle and Far East. All customers can benefit from the worldwide technical services on-site at the customer's location, available around the clock.

The worldwide services are carried out from our 13 SA divisions in Europe, the Middle East, India and Southeast Asia. The service centers are manned by well-trained staff and supported by the Original Equipment Manufacturers. All services are based on the required procedures, test equipment, tools and documentation.

Our technical services cover all areas from line service to complete turn-key solutions and are typically performed in close co-operation with the HQ competence center in Billund, Denmark, taking advantage of Group experience and local presence, providing immediate and qualified on-site system troubleshooting, repair and modifications as well as development of certifications (STC's) according to local, FAA or EASA requirements.

Technical and operational training (EASA Part-147) is provided on world wide basis.



**LOGISTICS & PARTS SERVICES**



**INSTALLATION SERVICES**



**MAINTENANCE - MRO SERVICES**



**PRODUCT DEVELOPMENT**



**DESIGN, ENGINEERING & STC'S**



**PRODUCTION SERVICES**



**TRAINING SERVICES**



**CONSULTANCY SERVICES**

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