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Ministère de l'Écologie, du Développement durable et de l'Énergie

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Structure awareness campaign for the Ground Handling community

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Introduction

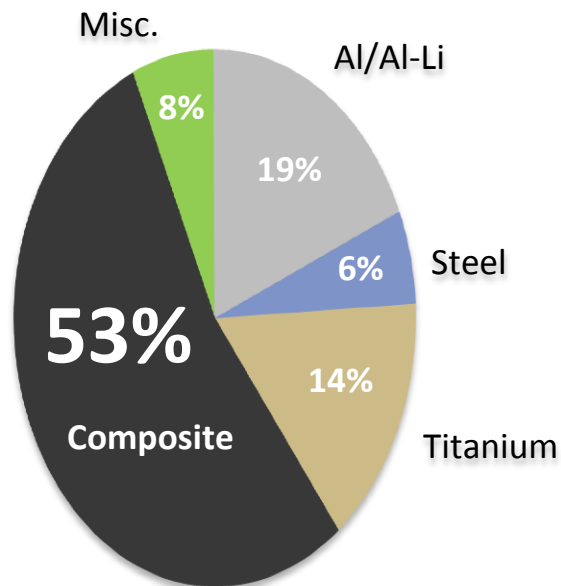


Awareness & reporting



Conclusion





Titanium

- High load frames
- Door surroundings
- Landing gear
- Pylons

No corrosion tasks

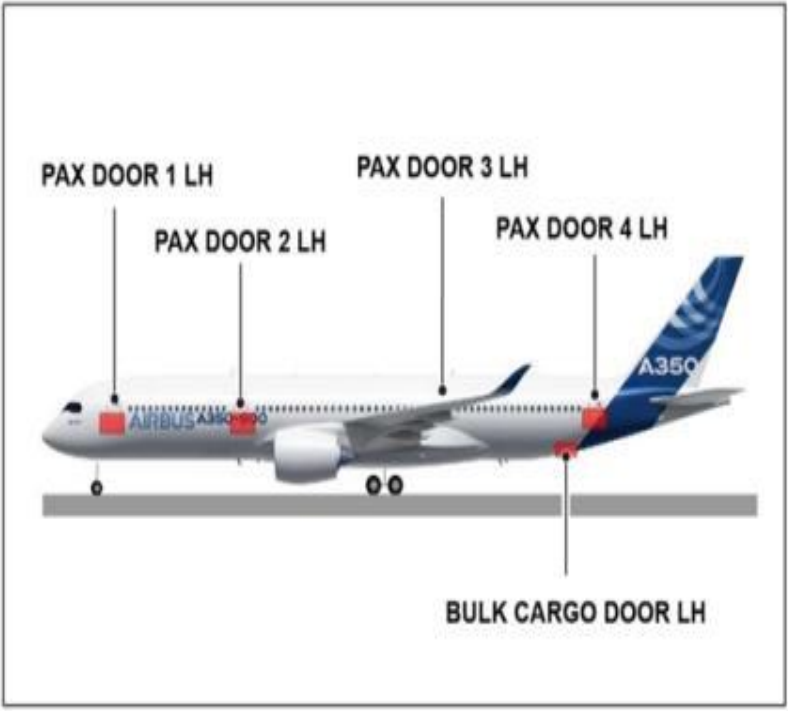
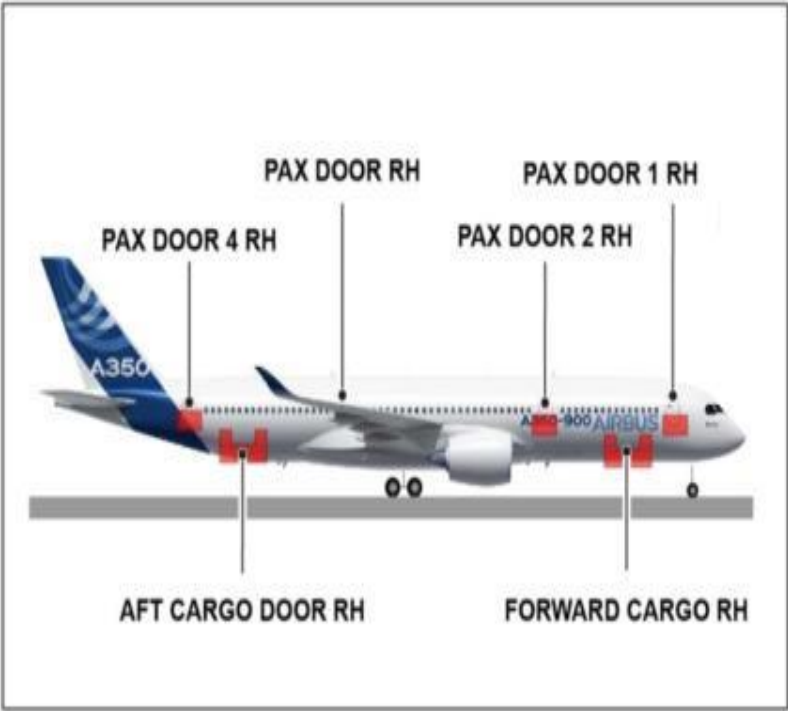
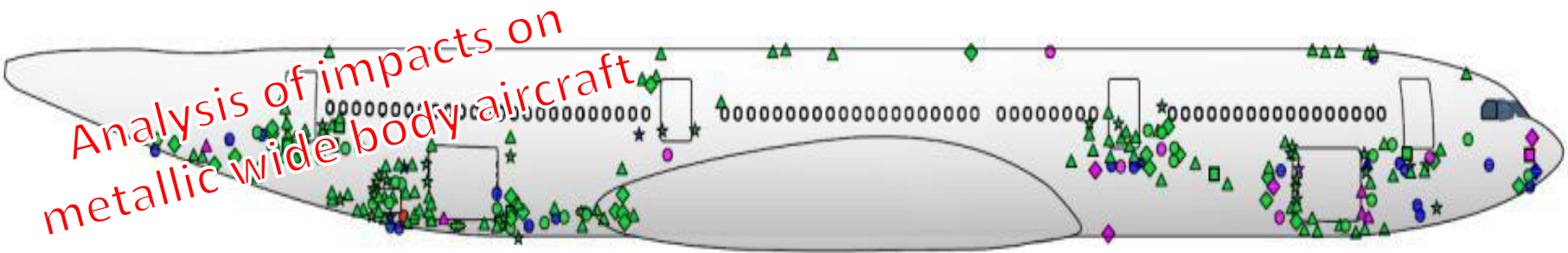
CFRP

- Wings
- Centre wing box and keel beam
- Tail cone (Section 19)
- Skin panels
- Frames, stringers and doublers
- Doors (Passenger & Cargo)

No corrosion & fatigue tasks

With the fuselage in Carbon Fiber Reinforced Plastic (CFRP), the ground handler working area has changed !







IMPACT WITH VISUAL INDICATION OF DAMAGE

GSE IMPACT EVIDENCE

DELAMINATION AND CRACKS BETWEEN PLIES

IMPACT WITHOUT EXTERNAL INDICATION, BUT WITH INTERNAL DAMAGE

INTERNAL STRUCTURE BROKEN

GSE IMPACT AREA, WITHOUT EVIDENCE

IR ENSEMBLE AU SOL

Normal operations

– GSE impacts aircraft in “DOCKING AREA”

and

– Contact is done over full bumper length

and

– No aircraft structure deformation observed

Nothing to report

Abnormal operations

– GSE impacts aircraft outside of “DOCKING AREA”

or

– Violent and sudden impact on aircraft

or

– Structure deformation observed

Ground Handler to report

All ramp operators must be **aware** of the risk of damaging the aircraft structure

Report abnormal operations **immediately**, even if no visual damage

- Airbus launched a structure awareness campaign with all our A350 operators
 - Explain the impact of CFRP on ground handling activities
 - Promote participation to a dedicated Ground Handling training module
 - Provide material (presentations/videos) which can be used by the operator to inform their ground handling community
- For ground handlers, the prime source of information on handling the A350 has to come from the aircraft operator through the Ground Handling Manual.
 - Our A350 customers agreed to extend this structure awareness campaign to the whole Ground Handling community
- Following slides are addressing the Ground Handling Community directly

Introduction



Awareness & reporting



Conclusion



Understand the aircraft you're handling

► Awareness

Follow the best standard procedures

► Best practices

Use correct Ground Support Equipment

► Enhanced standards

Report when something went wrong

► Report & Just culture

- Our ground handling training does not cover procedures as this doesn't fall under the manufacturer's responsibility
- Nevertheless, our recommendation is to make use of international standards and best practices

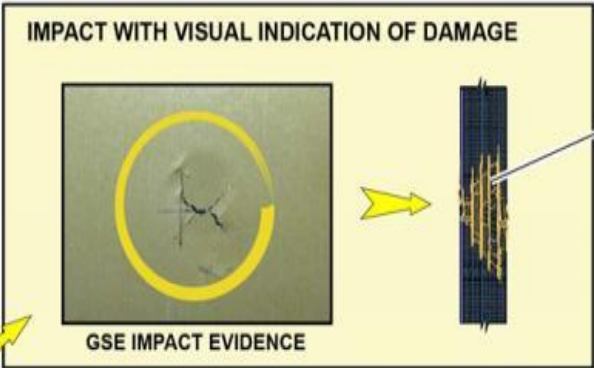
- SAE recommended practices
- IATA Ground Operations Manual (IGOM)



Airbus is supporting actively the GHI, IATA, SAE & ISO activities to reduce ramp damage

- Improve procedures – low speed near aircraft,
- Improve GSE standards – anti collision, speed limits, bumpers, impact detection and data logging
- Improve GSE maintenance

Such enhancements will be specifically beneficial for A350



**GROUND HANDLER: ACT AS TRIGGER
REPORT THE EVENT !**



It is recommended to make use of defined damage report templates including a maximum of information on the event

- Aircraft impact location
- Type of GSE
- Part of GSE impacting the fuselage
- Type of GSE interface protection (soft or hard bumper)
- Any visible damage: scratch, dents or marks...
- Did aircraft shake violently
- Aircraft skin deformation observed
- Any noise heard?
- Speed of GSE at time of impact

AIRLINE
GROUND INCIDENT/ACCIDENT DAMAGE REPORT

One for each of the main sections of the incident/accident

Part 1. DAMAGE BY

Other Aircraft
Ramp Equipment
Vehicle
Foreign Object
Jet Blast
Unknown (Presumably Unreported)
Other (specify)

Part 2. DETAILS OF DAMAGE

Date
Time of Occurrence
Phase of Operation
Area (Board, etc.)
Aircraft Reg
Aircraft Type
Flight No.
Scheduled Ground Time
Flight Delay
Flight Cancelled
VESNO (leave as appropriate)

Part 3. NUMBER OF CASUALTIES

Employees
Passengers
Others
Fatalities
Non Fatal

Part 4. VEHICLE/RAMP EQUIPMENT DETAILS AND CORRECTION REPORT

Type
Make
Steering
Lights
Signs
Markings
Steering Device
Stabilisers
Tow Hitch
Point of mass
from drawing (specify)

Part 5. DETAILS OF PERSONNEL INVOLVED

Name
Job Title
Company
Staff No.
License

Part 6. CONDITIONS

Weather
Use of official met report

Visibility
Wind speed
Temperature

Part 7. CONTRIBUTORY FACTORS

Identify by code from the checked factors when in your opinion contributed to the incident/accident by major factor

Other factors (specify)

Which of these contributory factors are normal practice?

Introduction



Awareness & reporting



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Training course, video and presentation material available to raise awareness

Ground Handlers to report abnormal events, even in the absence of visible marks on the aircraft structure

This initiative must be complemented by a just culture to promote event reporting

Reporting

Best practices

Standards

MERCI DE VOTRE ATTENTION



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