AIR7509: REPORTING OF DAMAGE TO COMPOSITE STRUCTURE

Tjarko de Jong, Airbus
Is there an issue with damage reporting? - No

Are there too many communications and does that cause delays? - Yes

Therefore One-liner purpose:

To provide guidance to increase efficiency, faster final answer, faster return to service.

(thus a cost reduction in-line with the CACRC charter)
Damage Reporting: why?

Me

Airtac

A320 with damage
Why: an example

<table>
<thead>
<tr>
<th>Area</th>
<th>Thickness (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nominal (ref. DWG XXXXXXX X)</td>
</tr>
<tr>
<td>D1</td>
<td>8</td>
</tr>
<tr>
<td>D2</td>
<td>8</td>
</tr>
<tr>
<td>D3</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Area</th>
<th>Approx. number of ply lost (US and DVI inspection iaw XXXXXXXXXXXX were performed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>D1</td>
<td>1 ECF + 4 CFRP</td>
</tr>
<tr>
<td>D2</td>
<td>1 ECF + 8 CFRP</td>
</tr>
<tr>
<td>D3</td>
<td>1 ECF + 9 CFRP</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Area</th>
<th>Ply lost dimension (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>W36.6 x L90.5</td>
</tr>
</tbody>
</table>
Target and Scope

Target
• To provide an increase in efficiency, faster final answer, faster return to service
• Written for Engineering, knowledge to be transfer to shop and flightline
• Provide Background information
• Document the existing knowledge
• To come to minimal essential information needed for a repair.
  Not an form of 42+ pages long, full of unneeded boxes to fill in.
  Could be very short.
• Implementation to be left to MRO/Airline
• Guidance and best practices.

In Scope
• To cover All communications for a return to service:
  • Damage report
  • Repair options
  • Temporary solutions
• Ferry flight
• To cover different scenario’s:
  “Perfect case” : First day of a 4C-check at a major MRO
  Best achievable at this time…: Some airstrip, only the pilots are around, at night.

Out of Scope
  Changing the “forms” currently in use
Topics to address

Photo quality
- Scale reference
- Damage extend visible
- Location identifiers

Repair related
- Temporary/permanent
- Materials availability
- Tooling available
- Altitude of repair station

Administrative
- Part number / serial number included
- Text and pictures match.

What goes often wrong

Note: Some topics might overlap with metallic repairs, to be included when needed for a complete document
Proposed way of working: structure

Investigate/show existing reporting guides
- SRMs (sanitized?)
- CHM-17
- MRO forms (sanitized, disclosed)?
- Trainings: AIR 6825, AIR5719 & AIR6671 etc.

Determining the structure
- what are the steps in the process
- Cover the simple cases
- Provide content for the difficult cases.

Collecting individual items
- Good examples
- Bad examples
- Didn’t know what to do here

Integrate structure and examples

Split up for authoring by section

Check for cohesion

Check and discuss
Proposed way-of-working

Proposed document to stay in the procedures task group with a delegation from the Training Task Group:

- Sarah Baglione
- Kirsten Bossenbroek Spalding
- Ray Kaiser
  (thank you)

As always, open to everybody.

Need to make it clear in the agenda which document will be discussed.
Help very welcome

Did you see an example of a good practice?
Did you came across an unclear report?
Did you came across a case where it was unclear what to do?
Where is the grey area/undefined are?
Do you have a topic that needs to be covered?

Please send to: Tjarko.deJong@Airbus.com
Or upload to the examples folder in the Work Area for AIR7509 on the CACRC website