ISO2685 Revision
Fire Testing For Propulsion

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- Background

- CEAT study (1) assessed fire effect onto various components when using different methods / standards used for fire resistance / fireproofness testing (Designated Fire Zone)
  - Aircraft Material Fire Test Handbook (Chapter 12)
  - AC 20-135
  - ISO 2685

(1) International Aircraft Material Fire Test Working Group – Atlantic City – Oct08

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- **Background**
  - **Comparative test : oil burner vs gas burner**
  - **3 different samples:**
    - Aluminium sheet
    - Aluminium tube
    - Aluminium former

Critical area:
1.2mm Aluminium sheet
behind a 3mm steel plate

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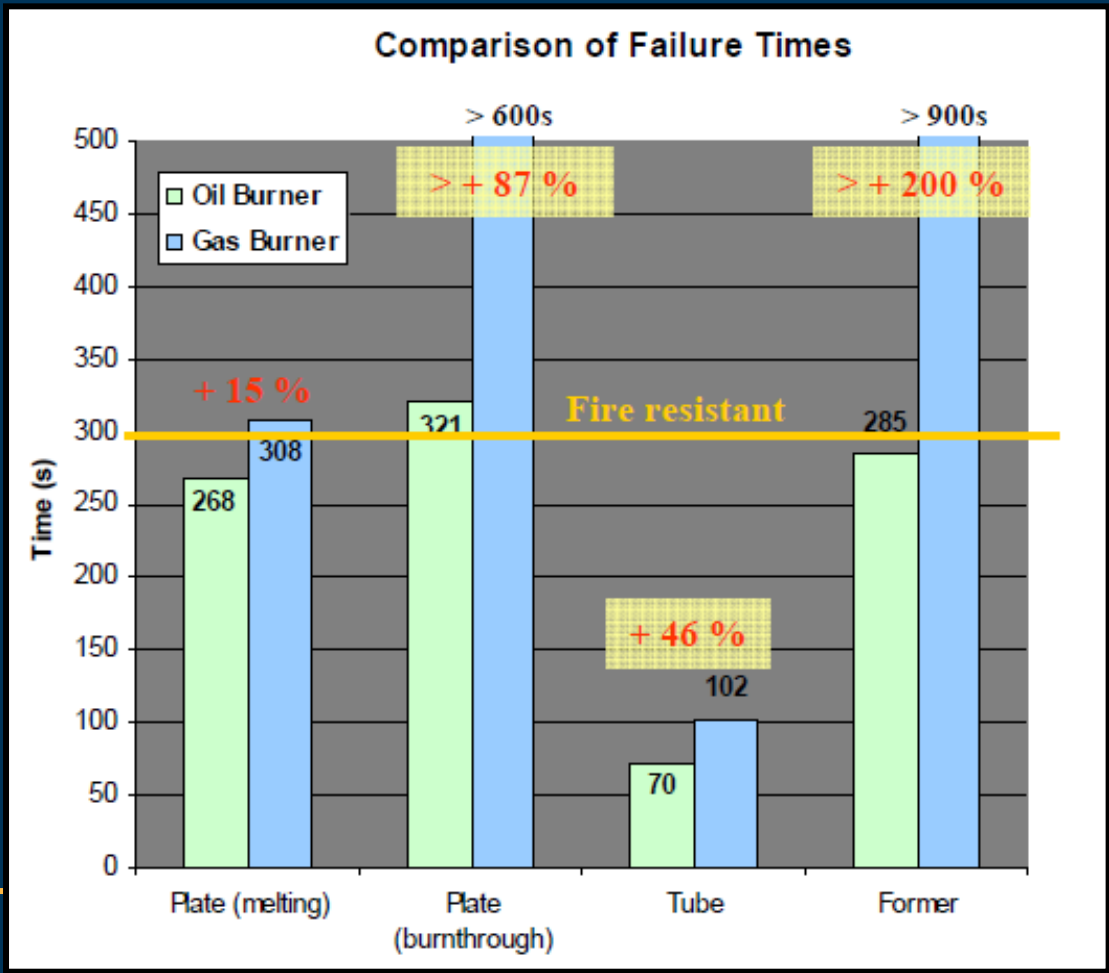
Background



Gas burner less severe

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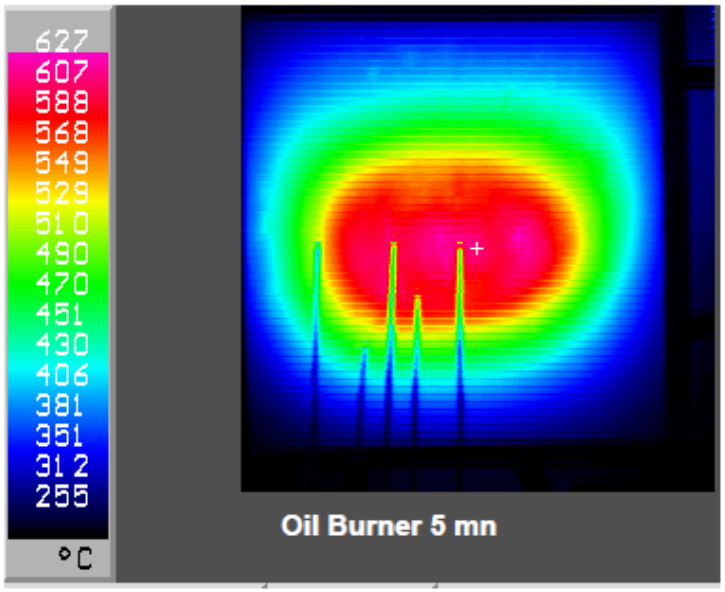
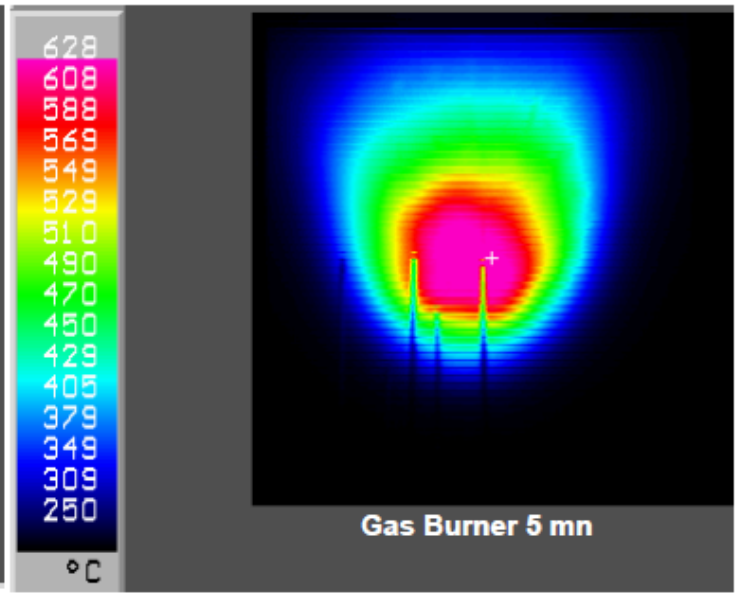
Background

Steel Plate





- Estimated area >520°C :
- Oil Burner : 189 cm² (~ 14cm x 14cm)
- Gas Burner : 49 cm² (~ 7cm x 7cm)

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- Issue
  - Gas burner flame less severe than Oil Burner
  - Oil burner representative of powerplant fire threat environment (not gas)
  - « informative » vs « formative »
    - Vibration is representative of powerplant environment and is requested for designated fire zone.
  - « Critical parts », « major cross-section » definitions shall be added.
  - Maximal dimensions of the speciment to be tested shall be adressed
  - Heat fux density measurement method to be precised
  - ...

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Status

- BNAé – EASA - DGAC – CEAT – Airbus Meeting on November 2008 to present CEAT preliminary results
- BNAé agreed to present subject at TC20 ISO committee (October 2009)
- Green Light for Working Group setting (November 2009)
- Working Group kick-off : 26 May 2010

Thank you