EASA Rotorcraft Safety Research Projects

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3. Helicopter Project 2007

- **EASA/2007/OP 17:**
  Investigation of the technical feasibility and safety benefit of an Integrated Engine / Rotor / Transmission Health Monitoring and HOMP System for Part 27 Piston Engine Small Helicopters
- **Supporting Department:**
  C.1.3 Products Department, Rotorcraft/Balloons/Airships Section
- **Selected contractor:**
  ECT Industries (FR)
- **Status:**
  100 hours flight trials not completed
  final report pending until end June 2009

3. Helicopter Project 2007

- **EASA/2007/OP 04:**
  Study on Helicopter Ditching and Crashworthiness
  The study will focus on retrofit of a modification to an existing helicopter type to enable the side floating concept to be achieved.
- **Supporting Department:**
  R.4.1 Rulemaking Directorate, Product Safety, Initial Airworthiness
- **Selected Contractor:**
  Eurocopter
- **Status:**
  Final report approved. Will be published on EASA web page.

- **Next steps:**
  To be decided:
  Presentation to larger forum, workshop, …

3. Helicopter Project 2008

EASA/2008/OP 26:
General Aviation Helicopter Operational Monitoring Programme (HOMP) Trial

- **Demonstration of the potential safety benefits possible from monitoring GA helicopter operations by routinely analysing flight data to detect deviations from normal, expected, or flight manual practice.**
- **FDM / HOMP data analysis should explore the possibility of determining the effectiveness of pilot training, improving pilot training and identifying operations which have reduced levels of safety.**
- **Contractor: Eurocopter**

2009 Helicopter Projects

Priority 1 Project for 2009

- **Instrument landing systems on oil rigs and gas platforms**
  - **Safety Recommendation of accident investigation of UK helicopter accident**
  - **Cooperate research with UK-CAA and HSRMC**
  - **Estimated budget needed: 200 T€**

2009 Helicopter Projects

Priority 2 Projects for 2009

- **Power reserve for rotorcraft**
  - Safety benefit of available power reserve that once activated would provide a couple of minutes of powered flight in case of engine failure.
  - Concept of power reserve could provide a third path between single and twin engine helicopters safe operation
  - Different technical solutions could provide such a reserve of power, e.g. tip-jet nozzles in combination with a reserve of propellant,
  - Feasibility study of the implementation of power reserve to gain a better understanding of this concept,
  - Evaluate the possible need to adapt the operational rules and certification specifications.

2009 Helicopter Projects

- Safety benefit of De-icing of smaller helicopters
  - Older systems rely on technology such as resistor heaters and power slip-rings.
    Weight and power penalties limited them to largest helicopters. No Part 27 aircraft has been at this date certified with a rotor de-icing system.
  - New technologies have emerged:
    potential to offer rotor de-icing or even anti-icing at smaller weight and power penalties,
  - Feasibility study of the implementation of a rotor de-icing system for smaller helicopters to gain a better understanding of new technology
  - Evaluate the possible need to adapt the corresponding certification specifications and guidance material.