

The response from the EASA to the safety recommendation

The Japan Transport Safety Board received the response from the European Aviation Safety Agency (EASA) to the safety recommendation issued September 27, 2013 as attached regarding a serious incident of JA135E (Eurocopter EC135T2) operated by academic corporate body HIRATAGAKUEN occurred over the sea approximately six nautical miles northwest of Kerama Islands, Japan on March 28, 2009.

JTSB safety recommendation to the EASA

In this serious incident a Eurocopter EC135T2, registered JA135E, operated by academic corporate body HIRATAGAKUEN, diverted to an aerodrome after the left engine shutdown during an emergency patient airlift.

Highly probable cause of the engine shutdown is that the clogging of injectors in the relatively lower part of the left engine combustion chamber left the fuel injection restricted to upper part, developing into a heat concentration in the Upper Structure damaging the engine interior.

Increased viscosity of the fungicide near the fuel nozzle clogged the injectors with sea salt.

Possible contributing factor is: a larger amount of the fungicide than authorized in the EMM (engine maintenance manual) for the same type of rotorcraft had been added to fuel drums, stirred, and the mixture was immediately supplied to the helicopter. The RFM (rotorcraft flight manual) for the same type of helicopter carries no descriptions about the use of fungicide in its authorized fuel additives.

In view of this serious incident investigation, the Japan Transport Safety Board recommends that the EASA should take the following measures:

It is recommended that the European Safety Agency directs Eurocopter and Turbomeca to cooperatively study the helicopter operational environment and the effects of fungicide to inform helicopter customers of the proper dosing instructions and precautions.



(Name)

Head of Safety Intelligence & Performance Department
Strategy & Safety Management Directorate

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MHI/RSO/SM.1
Cologne,

22. DEZ. 2015

Japan Transport Safety Board (JTSB)

Dr. Nohiro GOTO

Chairman

2-1-2, Kasumigaseki

Chiyoda-ku

Tokyo 100-8918

Japan

Subject: Safety recommendations related to the event to EUROCOPTER - EC135 registered JA135E,
on 28/03/2009, at Kerama Islands, Okinawa - Japan

Dear Dr. Goto,

Following the Safety Recommendations mentioned above addressed to the European Aviation Safety Agency, please find thereafter the Agency's response.

Yours sincerely,

(Original signed)

Copy: Certification - Rotorcraft
Certification Director
Flight Standards Director
Strategy & Safety Management Director



Subject: EUROCOPTER - EC135 registered JA135E, on 28/03/2009, at Kerama Islands, Okinawa - Japan

Reply to Safety Recommendation JAPN-2013-003 received on 01/10/2013

Safety Recommendation:	<p>It is recommended that the European Safety Agency directs Eurocopter and Turbomeca to cooperatively study the helicopter operational environment and the effects of fungicide to inform helicopter customers of the proper dosing instructions and precautions.</p>
Response:	<p>EASA has published, in February 2013, a Certification Memorandum (EASA CM-PIFS-009 Issue 1) on Fuel Specifications Changes, providing guidance for the introduction and approval of fuel additives for Type Certificate (TC) and Supplemental Type Certificate (STC) holders. In particular this Certification Memorandum requires proper recording of information and identifies the Rotorcraft Flight Manual (RFM) as the document in which information related to fuel additives limitations shall be recorded.</p> <p>It also requires coordination and cooperation between the Aircraft and the Engine Type Certificate Holders in order to properly describe in the approved aircraft documentation the use by the operators of the different fuel types and additives.</p> <p>On this specific case, after coordination with Turbomeca, Airbus Helicopter Deutschland (AHD) reported back to EASA the following process used for the introduction of new fuel specifications and additives:</p> <ul style="list-style-type: none"> - the engine limitations regarding fuels and fuel additives are detailed in the Engine Installation Manual; - AHD assesses the applicable limitations (e.g. pressure limits, temperature limits or specific mixing concentrations for additives) and takes these limitations into account for the approval on aircraft level, considering the helicopter operational environment. <p>The outcome of this process is an update of the Rotorcraft Flight Manual (RFM) containing the dosing instructions and approved additives.</p>
Status:	Closed – Agreement

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