

JTSB Safety Recommendation to the EASA

September 27, 2013

Aircraft Serious Incident – 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

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.