

**MBB-BK 117 C-2,
G-MPSB**

**North Weald Airfield,
Essex**

12 March 2021

Serious Incident

Investigation Synopsis

This serious incident occurred during the demonstration of an engine failure after takeoff emergency procedure on a revalidation flight for the commander's type rating instructor qualification. The engine failure was simulated by the commander reducing Engine No 1's throttle to idle. Shortly afterwards the commander increased the throttle setting, but Engine No 1 did not respond. During attempts to resolve the problem, the throttle setting for Engine No 2 was inadvertently reduced, resulting in insufficient power being available for continued safe flight. The commander rejected the takeoff and executed a firm landing within the airfield boundary.

While the aircraft's skid assembly was deformed as a result of the landing, the touchdown forces did not exceed the manufacturer's threshold for it to be classified as a 'hard landing.' The subsequent engineering investigation did not find any evidence of malfunction in the engine control systems. Engine No 1 probably did not respond because the rotor rpm droop compensation had been inadvertently trimmed in the wrong direction.

Safety Recommendation 2024-002

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It is recommended that Airbus Helicopters Deutschland GmbH develop formal guidance to pilots delivering simulated one engine inoperative training in MBB-BK 117 helicopters using the one engine at idle technique.

Date Safety Recommendation made: 13 March 2024

LATEST RESPONSE

Response received: 26 November 2025

After the last Airbus-internal meeting it was decided to abandon the idea to modify the OSD within the TASE section because the outreach for pilots was not considered sufficient, and therefore not meaningful enough.

Instead, it was decided to revise the Flight Manual Supplement Release with a revision referred to as "FLM wash-up 2025". Note that the certification is not yet complete for the FLM wash-up 2024 release, which is just in the definition phase.

This revision is foreseen to cover, in the most efficient way, what risk is to be envisaged and thus which caution is to be taken when performing an OEI training. This might result in what seems to be very small modifications in the end, however all key-stakeholders rated the suggested mods being helpful in terms of simplification and unambiguity.

Safety Recommendation Status

Open

AAIB Assessment

Partially Adequate

Action Status

Not Enough Information

Feedback rationale

Following the decision not to implement the response previously notified, the AAIB has changed its response assessment to Partially Adequate. An update is requested on FLM wash-up 2025 by the end of Q2 2026. (EU Regulation 996/2010 article 18 refers).

RESPONSE HISTORY

Response received: 05 July 2024

Please Note: The corresponding one engine inoperative (OEI) training procedure is limited to those MBB-BK117 versions only with a Twist Grip installed. To be precise – the Flight Crew OEI Training Material/Guideline will be limited to the MBB-BK117 C-2 version.

At this point in time Airbus Helicopters (AH) is developing a dedicated OEI Training Material/Guideline in collaboration between the project & flight safety pilots of the flight test department and the corresponding AHD ATO chief flight instructor team. As soon as a reliable publication date is defined and a document draft version is available, AH will promptly pass this information on to the AAIB.

AAIB Assessment – Adequate Open

Safety Recommendation 2024-003

Safety Recommendation 2024-003

It is recommended that Airbus Helicopters Deutschland GmbH review the appropriateness and scope of the MBB-BK 117 rotorcraft flight manual limitation requiring the use of the manufacturer's training device when conducting one engine inoperative training at maximum training gross mass.

Date Safety Recommendation made: 13 March 2024

LATEST RESPONSE

Response received: 26 November 2025

There was already a longstanding but foreseen change of the affected Flight Manual Supplement (FMS) which was modified according to what should basically go beyond what is mentioned in the safety recommendation. It is intended to provide more clarity in terms of explaining the risks of not using the OEI training device and the pre-conditions for which its use is mandatory, still without prohibiting a non-usage of the device.

Recently, Airbus Helicopters reviewed the content and weighed whether to enter another add-on or not. Because of high risk of further delays related to the certification of this FMS modification, the decision was to keep what had been elaborated so far and to give way for the certification of the Flight Manual (FLM) for BK117 C-2 (and thereafter its publication) being internally dubbed "FLM wash-up 2024". This wash-up will contain the foreseen clarification in FMS 9.1-3.

Safety Recommendation Status	Open
AAIB Assessment	Partially Adequate
Action Status	Planned Action Ongoing Update Due 30 June 2026

Feedback rationale

When the updated Flight Manual Supplement (FMS) is published, the AAIB requests a copy of the text relevant to this Safety Recommendation. An update is requested by the end of Q2 2026 should the FMS revision not be published by then. (EU Regulation 996/2010 article 18 refers).

RESPONSE HISTORY

Response received: 05 July 2024

It is intended by Airbus Helicopters to enhance the document by a dedicated CAUTION within the Rotorcraft Flight Manual Section 9. Flight Manual Supplements, Sub-chapter 9.1 Special Operations, 9.1-3 OEI Training, A.4. Normal Procedures:

"OEI training without the training device (P/N B032M0820101), with manipulation of the twist-grip, bears a greater risk to exceed engine limitations as well as the risk of an inadvertent operation of the wrong twist grip."

Please Note: The reference with regard to operating weight and the usage of the OEI training device as defined within the chapter Rotorcraft Flight Manual Section 9. Flight Manual Supplements, Sub-chapter 9.1 Special Operations, 9.1-3 OEI Training, D.2. Limitations - "For CAT A Training with max. training gross mass the OEI Training device must be installed and operating." - will remain unchanged.

The upissue of the Rotorcraft Flight Manual will be scheduled within the next common washup revision. As soon as a reliable authority approval and publication date is defined, Airbus Helicopters will share this information with the AAIB accordingly.

AAIB Assessment – Partially Adequate Open