



## 緊急適航指令

民航局 AD 編號 CAA-2015-02-013E 修訂

### 1. 適用之航空產品

本緊急適航指令，適用於 ATR72-212A 之航空器型別。

註：未執行 ATR 原製造廠 MOD5948 改裝之機型為 ATR72-500，執行 MOD5948 改裝後機型為 ATR72-600。

### 2. 緣由

近期 ATR72-212A 型機在發動機運作時發生非指令性自動順槳(Uncommanded Auto-Feather)情形，經飛機原製造廠 ATR 初步調查，發生非指令性自動順槳情形前，曾出現自動式起飛動力控制系統(ATPCS)間歇式開啟及關閉情形。ATR 原廠已針對此情況發布 OEB 通告，指出非指令性自動順槳情形，可視為一種發動機失效之現象，並建議相關緊急處理程序，目前本事件肇因仍於調查作業中，惟基於此情況可能造成發動機失效並增加飛航組員操作應變之負擔，本局已發布緊急 AD CAA-2015-02-013E，提供航空器所有人及飛航組員相關緊急處理程序，以確保飛航安全。

上述緊急 AD 發布後，ATR 原廠分別針對 ATR72-500 及 ATR72-600 機型，發布修訂版 OEB 通告，並更正單發動機飛航操作程序所引用之 QRH 章節，因此本局發布本緊急 AD 修訂版，納入 ATR 原廠修訂版 OEB 通告。

### 3. 改正行動與執行時限

- (1) 航空器所有人應立即將適用之 ATR “OEB Subject: Uncommanded auto-feather - 500”及“OEB Subject: Uncommanded auto-feather - 600”納入 QRH。
- (2) 航空器所有人應對飛航組員實施上述 OEB 相關緊急處理訓練，強化狀況警覺，與發動機失效後之處置及單發動機飛航操作程序。



## 緊急適航指令(續頁)

民航局 AD 編號 CAA-2015-02-013E 修訂

### 4. 生效日期

104 年 2 月 26 日。

### 5. 備註：

本適航指令為預防性作為，將視調查結果及原廠建議，發布後續相關適航指令。



## Emergency Airworthiness Directive AD Number CAA-2015-02-013E Correction

Date: February 25, 2015

Correction: February 26, 2015

### 1. APPLICABILITY

ATR72-212A (Note: For those airplanes which the ATR MOD 5948 are not embodied, the airplane type can be referred to as ATR72-500. For those airplanes which the MOD 5948 are embodied, the airplane type can be referred to as ATR72-600.)

### 2. REASON

Uncommanded auto-feather events were reported on in-service ATR72-212A. The propeller goes in feather while the power plant is still running. According to the preliminary investigation, the intermittent ATPCS arming/disarming sequence during takeoff roll has been observed prior to some uncommanded auto-feather events.

This condition, if not corrected, could result in engine failure and consequent increased flightcrew workload.

To address this potential unsafe condition, ATR has issued Operations Engineering Bulletin (OEB) to provide the emergency procedure to deal with the uncommanded auto-feather situation. In the OEB, ATR also viewed the uncommanded auto-feather situation as an engine failure due to the associated symptoms of TQ (torque), NP (propeller rotation speed) and NH (high pressure spool rotation speed).

An emergency AD CAA-2015-02-013E requiring amendment of the applicable QRH according the ATR OEB has been issued.

Since Emergency AD CAA-2015-02-013E was issued, ATR re-issues the separate OEBs related to ATR72-500 and ATR72-600 accordingly and corrects applicable reference QRH pages.

For reasons described above, this emergency AD correction retains the requirements of emergency AD CAA-2015-02-013E, which is superseded, to require to reference ATR re-issued separate OEBs and amend applicable QRHs.



## Emergency Airworthiness Directive (continued) AD Number CAA-2015-02-013E Correction

### 3. **ACTIONS AND COMPLIANCE TIME**

Required as indicated, unless accomplished previously:

- (1) Before next flight after the effective date of this emergency AD, amend the applicable QRH by inserting a copy of ATR "OEB Subject: Uncommanded auto-feather - 500" and "OEB Subject: Uncommanded auto-feather - 600", as applicable to airplane type and model.
- (2) Concurrent with the QRH amendment as required by paragraph (1) of this AD, inform and train all flightcrews and, thereafter, operate the airplane accordingly. Besides, operators shall enhance flightcrew's situation awareness and training regarding the disposition of engine failure and single engine operation.

### 4. **EFFECTIVE DATES**

February 26, 2015

### 5. **NOTE** :

- (1) This emergency AD is still considered to be an interim action and further AD action may follow.
- (2) Reference Publications:  
ATR "OEB Subject: Uncommanded auto-feather - 500"  
ATR "OEB Subject: Uncommanded auto-feather - 600"
- (3) Enquiries regarding this emergency AD should be referred to the Initial Airworthiness Section, Flight Standards Division, CAA Taiwan. E-mail: [adcaa@mail.caa.gov.tw](mailto:adcaa@mail.caa.gov.tw)

## **OEB Subject: Uncommanded auto-feather - 500**

### **1. Reason for issue.**

This OEB is issued to provide operators with operational recommendations about in-service events of uncommanded auto-feather: a situation where a propeller goes in feather while the engine is still running. The associated symptoms are:

- TQ and NP decrease to or close to 0, and
- NH drops to around 73% and remains steady.

This OEB aims also at providing additional information about ATPCS arming during takeoff roll. An intermittent ATPCS arming/disarming sequence during takeoff roll has been observed prior to some uncommanded auto-feather events.

Any loss of engine propeller rotation speed (NP) and/or torque (TQ) should be dealt with as an engine failure.

- At takeoff, the ENG FLAME OUT AT TAKEOFF procedure is applicable.  
Depending on the root cause of the uncommanded auto-feather, the affected engine propeller may unfeather upon PWR MGT selection to MCT. In any case, ATR recommends proceeding with the ENG FLAME OUT AT TAKEOFF procedure until engine is shutdown.
- During any other phase of flight, the analysis of in-service events have shown that the ENG FLAME OUT IN FLIGHT procedure does not apply to uncommanded auto-feather symptoms, because NH never drops below 30%.

### **2. ATR action.**

Investigations are in progress to identify the root cause of the reported events and to define appropriate corrective actions.

### **3. Procedures.**

#### **a. Take off normal procedure**

At takeoff, the ATPCS must be checked armed and announced. If it is not armed while both power levers are in the notch, or in the case of intermittent arming / disarming of the ATPCS, the takeoff must be rejected.

#### **b. Any loss of NP and/or TQ should be dealt with as an engine failure**

##### **i. During Takeoff**

ENG FLAME OUT AT TAKEOFF procedure is applicable.

##### **ii. During any other phase of flight**

Apply the following procedure:

PL affected side .....FI

CL affected side .....FTR THEN FUEL SO

LAND ASAP

SINGLE ENG OPERATION procedure (2.04).....APPLY

## **OEB Subject: Uncommanded auto-feather – 600**

### **1. Reason for issue.**

This OEB is issued to provide operators with operational recommendations about in-service events of uncommanded auto-feather: a situation where a propeller goes in feather while the engine is still running. The associated symptoms are:

- TQ and NP decrease to or close to 0, and
- NH drops to around 73% and remains steady.

This OEB aims also at providing additional information about ATPCS arming during takeoff roll. An intermittent ATPCS arming/disarming sequence during takeoff roll has been observed prior to some uncommanded auto-feather events.

Any loss of engine propeller rotation speed (NP) and/or torque (TQ) should be dealt with as an engine failure.

- At takeoff, the ENG FLAME OUT AT TAKEOFF procedure is applicable.  
Depending on the root cause of the uncommanded auto-feather, the affected engine propeller may unfeather upon PWR MGT selection to MCT. In any case, ATR recommends proceeding with the ENG FLAME OUT AT TAKEOFF procedure until engine is shutdown.
- During any other phase of flight, the analysis of in-service events have shown that the ENG FLAME OUT IN FLIGHT procedure does not apply to uncommanded auto-feather symptoms, because NH never drops below 30%.

### **2. ATR action.**

Investigations are in progress to identify the root cause of the reported events and to define appropriate corrective actions.

### **3. Procedures.**

#### **a. Take off normal procedure**

At takeoff, the ATPCS must be checked armed and announced. If it is not armed while both power levers are in the notch, or in the case of intermittent arming / disarming of the ATPCS, the takeoff must be rejected.

#### **b. Any loss of NP and/or TQ should be dealt with as an engine failure**

##### **i. During Takeoff**

ENG FLAME OUT AT TAKEOFF procedure is applicable.

##### **ii. During any other phase of flight**

Apply the following procedure:

PL affected side .....FI

CL affected side .....FTR THEN FUEL SO

LAND ASAP

SINGLE ENG OPERATION procedure (2.05).....APPLY