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Missing aircraft, Boeing 777, 9M-MRO, 8 March 2014

Identification of large flap section recovered off the Tanzanian coast

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Addendum

Page	Change	Date

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Identification of large flap section recovered off the Tanzanian coast

Introduction

On 20 June 2016, a large item of debris was found on the island of Pemba, off the coast of Tanzania. Preliminary identification from photographs indicated that the item was likely a section of Boeing 777 outboard flap (Figure 1).

Assistance from the Australian Transport Safety Bureau (ATSB) was requested by the Malaysian Government in the formal identification of the item, to determine if the item came from the Malaysian Airlines Berhad (MAB) aircraft, registered 9M-MRO and operating as MH370. The Malaysian investigation team secured the item of debris and arranged shipping to the ATSB facilities in Canberra.

This document (Update 3) is a brief summary of the outcomes from the identification of the item, designated as Part number 5. It follows the identification of Part numbers 1 through 4, the outcomes of which were released by the ATSB in Updates 1 and 2, available on the ATSB website at www.atsb.gov.au/mh370-pages/updates/reports/

This debris identification summary is released with the concurrence of the Malaysian ICAO Annex 13 Safety Investigation Team for MH370.

Identification

Part No. 5

Part number 5 was preliminarily identified from photographs as an inboard section of a Boeing 777 outboard flap. On arrival at the ATSB, several part numbers were immediately located on the debris that confirmed the preliminary identification. This was consistent with the physical appearance, dimensions and construction of the part.

A date stamp associated with one of the part numbers indicated manufacture on 23 January 2002 (Figure 2), which was consistent with the 31 May 2002 delivery date for 9M-MRO.

All of the identification stamps had a second “OL” number, in addition to the Boeing part number, that were unique identifiers relating to part construction. The Italian part manufacturer recovered build records for the numbers located on the part and confirmed that all of the numbers related to the same serial number outboard flap that was shipped to Boeing as line number 404. Aircraft line number 404 was delivered to Malaysian Airlines and registered as 9M-MRO.

Based on the above information, the part was confirmed as originating from the aircraft registered 9M-MRO and operating as MH370.

Figure 1: Inboard section of outboard flap (inverted)

Source: ATSB

Figure 2: Exemplar part number and date stamp

Source: ATSB

Further analysis

At the time of writing, the flap section was being examined for any evidence of interaction with mechanisms, supports and surrounding components (such as the flaperon, which abuts the inboard end of the outboard flap) that may indicate the state of flap operation at the time of separation from the wing. This information may contribute to an increased understanding of end of flight scenarios.

Conclusions

It was confirmed that Part No. 5 was the inboard section of a Boeing 777 right, outboard flap, originating from the Malaysian Airlines aircraft registered 9M-MRO.