ACCIDENT

Aircraft Type and Registration: Zenair CH 601XL Zodiac, G-EXXL

No & Type of Engines: 1 Rotax 912ULS piston engine

Year of Manufacture: 2012 (Serial no: LAA 162B-14868)

Date & Time (UTC): 19 June 2016 at 1110 hrs

Location: Pilling Sands, Morecambe, Heysham,

Lancashire

Type of Flight: Private

Persons on Board: Crew - 2 Passengers - None

Injuries: Crew - None Passengers - N/A

Nature of Damage: Landing light lens and left wing skin

Commander's Licence: Private Pilot's Licence

Commander's Age: 56 years

Commander's Flying Experience: 9,672 hours (of which 27 were on type)

Last 90 days - 5 hours Last 28 days - 3 hours

Information Source: Aircraft Accident Report Form submitted by the

pilot

Synopsis

The aircraft was on a local flight from a private airstrip when it collided with a recreational kite at a height of 720 ft, causing minor damage to the left wing. The pilot reported that the kite flight activity had not been 'NOTAMed', and the kite did not have any streamers attached to aid conspicuity. The kite flying activity had not been notified to the CAA as required by the Air Navigation Order.

History of the flight

The aircraft was on a local flight from a private airstrip when it collided with a recreational kite being flown at a height of approximately 720 ft (219 m), from the beach at Pilling Sands, near Morecambe. The pilot returned to the airstrip where it became apparent that the string of the kite had cut through the landing light lens skin on the left wing, and a portion of string remained lodged in the wing.

The pilot reported that the kite flight activity had not been 'NOTAMed' or advised to local flying clubs, and the kite did not have any streamers attached to aid conspicuity.

The pilot and her passenger subsequently drove to the beach to speak with the individuals involved in the activity and reported that they appeared unaware of the implications of flying their kites at such heights. The pilot described her concern that the kite had not been visually identifiable in accordance with the relevant kite-flying regulations.

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Regulations pertaining to kite flying

Historic regulations

At the time of this incident, the Air Navigation Order (ANO) 2009 was extant. Article 164 'Gliders, kites and parachutes' stated:

- '... (2) Except with the permission of the CAA: (b) a kite must not be flown at a height of more than 30 metres above ground level within the aerodrome traffic zone of a notified aerodrome during the notified operating hours of that aerodrome;
- (c) a kite must not be flown at a height of more than 60 metres above ground level;'

Historically, Rule 53 of 'The Rules of the Air Regulation 2007', 'Captive balloons and kites by day,' (hereafter referred to as Rule 53) had also stated the following requirements regarding the required marking of kites operating above 60 m (197 ft):

- '53. (1) A captive balloon flying by day at a height exceeding 60 metres above the surface shall have attached to its mooring cable tubular streamers which are (a) not less than 40 centimetres in diameter and 2 metres in length; and (b) marked with alternate bands of red and white 50 centimetres wide at intervals of not more than 200 metres measured from the basket or, if there is no basket, from the lowest part of the balloon.
- (2) A kite flying by day at a height exceeding 60 metres above the surface shall have attached to its mooring cable either:(a) tubular streamers as specified in paragraph (1); or (b) at intervals of not more than 100 metres measured from the lowest part of the kite, streamers not less than 80 centimetres long and 30 centimetres wide at their widest point, marked with alternate bands of red and white 10 centimetres wide.'

Additional requirements for kites operating at night to be illuminated, were also described in Rule 52 of 'The Rules of the Air Regulation 2007', 'Captive balloons and kites by night' (hereafter referred to as Rule 52).

Following the introduction of the Standardised European Rules of the Air (SERA¹), 'The Rules of the Air Regulation 2015' came into force in the UK on 30 April 2015 and Rules 52 and 53 were removed from the Rules of the Air. There are no equivalent provisions for kite conspicuity in SERA.

Footnote

SERA, which applies to every aircraft operating in EU airspace regardless of type or state of registration, replaced most but not all of the UK Rules of the Air Regulations. As the SERA rules do not cover all aspects of the Rules of the Air, the UK has retained a small number of supplementary rules currently described in 'The Rules of the Air Regulations 2015'.

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Current regulations and kite flying Permissions

The Air Navigation Order 2016 came into force on 25 August 2016. Article 92 includes the requirements relevant to kite flying, previously described in Article 164 of the ANO 2009.

In accordance with the requirements of Article 92, a kite operator who wishes to operate above 60 m must seek Permission from the Civil Aviation Authority (CAA) Airspace Regulation Section. In issuing a Permission the CAA will assess the location of the proposed kite operation, coordinate with adjacent aerodromes or airspace operating agencies and may impose a limit on the altitude at which the kite may be operated. A NOTAM will then be issued to notify all airspace users.

Prior to April 2015, any kite flying permission granted by the CAA would also have included the conspicuity requirements previously described in Rules 52 and 53; however, these requirements were removed from CAA Permissions with the introduction of SERA.

Safety Action

In response to this incident and in light of the changes made under the introduction of SERA, the CAA has reviewed its current policy pertaining to the issuance of Permissions for kite flying activities. While the CAA can no longer mandate the conspicuity requirements previously described in Rules 52 and 53, it has advised the AAIB that all future Permissions for kites (and captive balloons) will include a statement that operators:

'Should have attached to its mooring cable either:

- (a) tubular streamers as specified in paragraph (1) (this relates to the identical marking of captive balloons);or
- (b) at intervals of not more than 100 metres measured from the lowest part of the kite, streamers not less than 80 centimetres long and 30 centimetres wide at their widest point, marked with alternate bands of red and white 10 centimetres wide'.

For conspiculty at night, all Permissions for night operations will state (and detail) that the kite should be lit in the manner previously required by Rule 52.

Discussion

In April 2015, the CAA removed the conspicuity requirements for kites from its Permissions. However, the kite flying activity described in this incident was not notified to the CAA and therefore was not the subject of a CAA Permission. This suggests that the kite operator was not aware of, or chose not to comply with, the Article 92 requirement to obtain a Permission; nor did they seem to be aware of any former conspicuity requirements for kites.

Bulletin Correction

On 11 November 2016 the word 'and' was removed from after kite in the final paragraph under the heading 'Safety Action' on page 93 above.

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