# Safety Recommendation 2017-018

It is recommended that the European Aviation Safety Agency (EASA) requires that all powered sailplanes, operating under either an EASA Restricted Type Certificate, or an EASA Permit to Fly, and fitted with a Front Electric Sustainer (FES) system, are equipped with a warning system to alert the pilot to the presence of a fire or other hazardous condition in the FES battery compartment.

**Date Safety Recommendation made:** 

25 September 2017

#### LATEST RESPONSE

# Response received:

12 February 2018

The Agency agrees with intent of the Safety Recommendation.

As immediate action the Emergency Airworthiness Directive (EAD)2017-0167-E has been published on September 6th, 2017. This EAD required removal of the Front Electrical Sustainer (FES) battery pack, or an EASA approved modification of the FES batteries, before the next flight.

The three affected manufacturers have taken the following corrective action addressed by the EAD:

Major change approvals: HPH Sailplanes: 10064072 Schempp-Hirth: 10063863 Sportine Aviacija: 10064174

These corrective actions address the introduction of a mandatory warning system, Aircraft Flight Manual (AFM) improvements, a Flight Control Unit (FCU) software update with regard to the warnings presented to the pilot, and modifications to the FES battery design itself.

The same corrective action has also been applied to aircraft under Permit to Fly.

Moreover, EASA will ensure that the same approach is applied to ongoing and future certification projects.

AAIB Assessment - Adequate - Closed

#### **RESPONSE HISTORY**

#### Response received:

23 November 2017

The Agency agrees with the intent of the Safety Recommendation.

As first action, the Emergency Airworthiness Directive (EAD) 2017-0167-E was published on September 6th, 2017. This EAD requires removal of the Front Electrical Sustainer (FES) battery pack or an EASA approved modification of the FES batteries before the next flight. The three affected manufacturers are currently in the process of developing the corrective action addressed by the EAD and the Air Accidents Investigation Branch (AAIB) Special Bulletin. EASA concurs with the recommendation and will require a warning system as part of the corrective action. Design details of such warning systems are not available yet, since the systems are still under development.

Moreover, the Agency will look into further items such as, Aircraft Flight Manual (AFM) improvement, Flight Control Unit (FCU) software update with regard to the warnings presented to the pilot and modifications to the FES battery design itself.

EASA will ensure that the same corrective action is applied to aircraft under Permit to Fly as well.

AAIB Assessment - Partially Adequate - Open

# Safety Recommendation 2017-019

It is recommended that Alisport SrI modifies the Silent 2 Electro microlight to incorporate a warning system to alert the pilot to the presence of a fire or other hazardous condition in the Front Electric Sustainer (FES) battery compartment.

**Date Safety Recommendation made:** 

25 September 2017

## **LATEST RESPONSE**

Response received:

30 November 2017

Alisport Srl have been working in close cooperation with LZ Design, and others, to find a solution to fulfil the airworthiness and safety issues. They have designed an appropriate fire warning system to be installed on their gliders.

Alisport SrI will now work to update their aircraft with the fire warning system and the new battery cases. As soon as modifications guidelines and installation manual are updated, they will inform their customers and provide all necessary documentation and components to perform the upgrade.

AAIB Assessment - Adequate - Closed

### **RESPONSE HISTORY**

N/A

### Safety Recommendation 2017-020

It is recommended that Albastar d.o.o. modifies the AS13.5m Front Electric Sustainer (FES) microlight to incorporate a warning system to alert the pilot to the presence of a fire or other hazardous condition in the FES battery compartment.

**Date Safety Recommendation made:** 

25 September 2017

## **LATEST RESPONSE**

# Response received:

1 February 2018

This applies to two A13,5m FES gliders built by one individual under Slovenian CAA experimental regulation and UL certification standard. This individual received AAIB Special Bulletin S3/2017, ceased operation and contacted LZ Design, manufacturer of the FES propulsion system, for advice on further actions.

As of February 2018 both gliders are currently grounded waiting modification documentation and hardware from the FES manufacturer LZ Design.

AAIB Assessment - Partially Adequate - Open

#### **RESPONSE HISTORY**

N/A