Experience with Electrically Powered Aircraft in Training

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Experience with electrically powered aircraft in training
David Bieli – Head of Training Organisations and Light Aircraft Operations FOCA
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Safety Division – Flight Operations

Section SBFL (SBFL@bazl.admin.ch)

«Training Organisations and Light Aircraft Operations»

• This section certifies and licenses:
  ✈️ training organisations (ATO) for complex and non-complex aircraft;
  ✈️ Flight simulation training devices; and
  ✈️ air operations (NCO).

• This section is responsible for the supervision of light aircraft operations in Switzerland; and

• In addition, its supervisory duties encompass gliders, as well as hang-gliders, DTOs, balloons and parachute jumps.
Organisations and FTSDs

12 Training organisations using e-aircraft
13 HB- registered aircraft

Total 226 certificates and declarations
535 Training course syllabi in ATOs und 405 in DTOs

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Legal basis

Based on an exemption EASA ref[number] 711/20/1062
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Area of operation

Basic Training – LAPL / PPL

Airwork,

Aerodrome circuits

Landing training
Advantages - disadvantages

**Advantages:**
- Reduced emissions
- Fuel
- Noise
- Lower costs
- Marketing potential

**Disadvantages/challenges:**
- Endurance
- Performance
- Flight planning
- Battery charging (especially in cold temperatures)
- Limited area of operation
- Only suitable for 5-40% LAPL/PPL sessions
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Differences e-aircraft vs conventional aircraft

- Smother control reactions
- Easier system- and checklist handling
- Simpler procedures
- Better glide ratio

- Slowing down of aircraft is totally different compared to conventional SEP
- Lack of endurance/performance must be compensated with additional forward planning compared to conventional SEP
- Lessons with e-aircraft must be well timed and organised
Participants using e-aircraft have mainly positive experiences, even though some difficulties and challenges exist;

The majority of participants rate the potential as promising as soon as the endurance will increase to 2-3 hours.
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