First customer impressions about FES installed on LAK17B

by pilot Vytautas Mačiulis

Glider LAK-17B, LY-AUQ, competition marks KM, was converted to LAK-17B-FES (Front Electric Sustainer), just few days before WGC 2010 in Szeged, Hungary.

Luka Žnidaršič, LAK dealer in Slovenia, has done perfect job. He designed and installed reliable electric engine in front of the glider. He did a very nice job and minimized drag from the blades and spinner. The FES looks very nice and the performance is fantastic.

My first flight I did in Slovenia, near Ljubljana. The first impression was like flying with no engine at all: the propeller blades are invisible, because they are located on the sides of the fuselage, below canopy; there is no additional noise; no sensible drag. It was very easy to start the engine and monitor power settings. I flew about 10 minutes with the engine running. Stopped and started it 8-10 times without any stress.

Further flights were conducted during WGC in Szeged, Hungary. Many times I flew in gaggles with other gliders and did not see any difference in performance due to additional possible drag in the frontal part of the fuselage. Due to poor weather conditions, I could not compare the glider at very high speeds and flying cloud streets. I was not very good as competitor myself, because of too little training on the LAK-17B which is new glider for me and I did only 15-20 hrs on the type.

I did 3 FANTASTIC return flights using the electric engine, which started without any stress. 65 km was maximum distance which I flew with the engine, and I had about 30-35% of energy remaining after landing. I met few thermals during flights back and in case of doubt if I had enough energy to get back to the airfield, I could easily use thermals and increase the distance.

I made such positive conclusions:

1. There is no sensible drag from the blades and spinner in the front. No additional noise which indicates drag.
2. The engine starts without stress and is reliable.
3. No need to wear a headset: you may hear radio with the engine running.
4. Easy to stop the engine and continue soaring when entering the thermal and save the battery power. In case, you lose the thermal the engine may be started again. This feature may be very valuable during training flights.
5. Long distances may be covered during training flights, because areas without or with week thermals may be over flown.
6. No need to have a team/helper/driver during training cross country flights.
7. It takes only 4-5 hrs to recharge the batteries.
8. The system is Nature Friendly!!!