AERO Friedrichshafen, Saturday, April 21th 2007; 11.45 – 12.15 h
Session 3: Don't forget basic flying – an emerging market!
Switzerland welcomes ultralights - first experiences and advice for foreigners, Anton Landolt, President Swiss Microlight Federation

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Ladies and Gentlemen

I have the pleasure to talk about Ecolight, the swiss way of ultralight flying. The presentation touches the follwing points: 1. Introduction, 2. Some historical remarks, 3. Useful informations for pilots, 4. Conclusions.

1. Introduction

My name is Anton Landolt and since 8 years I'am president of the Swiss Microlight Federation. This Federation holds about 200 members and is a part of national Aero Club. That's why I'am also member of Swiss Aero-Club executive board. My own experience in flying covers modelflying, hanggliding, trikeflying and classic motorflying including ecolight.

Together with my colleagues in 1997 I started the project ecolight. For many years we had to do very hard political work before in 2005 ecolight was airborne. Thanks to the goodwill of Swiss aviation authority since 1st april 2006 our airspace is also open to foreign ultralight pilots.

In the last 20 years countries like Germany, France or Czech Republic built up a very successful ultralight industry. Switzerland does not, because until 2005 it was absolutely forbidden to practice ultralight flying in Switzerland. In all europe countries ultralight flying communities were established, but not in Switzerland. Swiss ultralight enthusiasts had to fly outside of Switzerland, for example in Germany or France. In all these years swiss

pilots were received very well in the foreign exile. Now, it's time to give a return and today I can proudly say: „Switzerland welcomes ultralight-pilots of all Europe!" Switzerland is a very beautiful country for flying with its wonderful landscape, mountains and lakes. You will find over 30 nice airfields and can enjoy a lot of freedom in swiss airspace.

2. Some historical remarks

The first ultralights 20 years ago were simple, not expensive and a few of them as loud as mowing machines. People feared, that ultralight could spread to a wide popular sport with negative consequences for the environment. So in 1984 our government banned ultralight and the term ultralight became a taboo in the mind of swiss people. That's the reason why we had to change our strategy to introduce this kind of aviation. In 1996 we had the idea to give to the meantime very modern developped ultralights the new name ecolight. With that "eco" label we accentuated the significant advantages for environment in comparison to classical light aircrafts. In 1997 we began to present ecolight at airshows in static display. The echo was very positive. In the following years we made a lot of political lobbying and could enlarge the ecolight sympathizers successively. The real political break-through took place on 21st march 2000. That day we organized an ecolight-demonstration for the members of federal parliament on the airfield of Berne. Many politicians, journalists and TV stations were present. We had also two electric motor powered gliders and one machine with a catalytic converter in the display. The demonstration was a full success with a great media output, followed by political interventions in the national parliament aming at a quick implementation of such an ecolight class in Switzerland. The ministry of transport made a study, which attested

a substitution effect of 30% to classic light aircraft material in longterm. With this result we had the proof, that ecolights are useful and the political question was definitively decided in our favour. Unfortunately government excluded trikes and rotorwings from the project, because the study could not show a substitution effect to these categories. In the years after the millenium followed a troubleful implementation process. Finally on 1st July 2005 we could celebrate ecolight's first takeoff. Meanwhile we count 13 ecolights which are in private use or serve to aviation schools or operate as glidertowing machines. Ecolight business has started successfully but in moment market stagnates, because interested purchasers hesitate. One reason is the fact, that todays maximum takeoff mass is too short for modern ultralights and does often not allow legal twoseated flights. I think this weightlimit should be increased. Then investors will be more interested and basic flying can grow up to a really emerging market. In this context Switzerland gives full support to a new LSA class in Europe.

3. Useful informations for pilots

I want give you now some useful informations and advices for flying with ultralights in Switzerland.

3.1. Where can you get informations?

Our website www.ecolight.ch is the source for Switzerland where you can find ultralight informations including instructions for cross border flights.

3.2. How are ecolights defined?

The swiss ecolight category follows EASA Reglementation Nr. 1592, Annexe II, and the construction norms are adapted to the german LTF-UL.

Trikes and rotorwings are excluded. You can recognize an ecolight by the callsign Hotel-Bravo-Whiskey plus two individual letters. With great success we use ecolights for glidertowing as well. In 2006 ecolights made about 450 hours in towing gliders. It's a rising market because ecolights are able to substitute classic towing machines in a more economic and ecologic way. In 2005 a group of idealists built an ecolight prototype with 115 HP which is able to pull away the heaviest gliders even from short grass runways. By the way, on this exhibition you can see at the Swiss Aero Clubs exhibition desk an extrem lightweight winch, especially developped for glidertowing with ultralights.

3.3. Who is responsible for the ecolight type certification?

Aviation autority has delegated ecolight type certification to the Swiss Microlight Federation. A team of engineers cares about all technical matters. Our "Zulassungsstelle" is a similar organisation as the german „Luftsportgerätebüro" and we maintain a good contact to Germany. Until today we have certified 4 ecolight types in Switzerland. Others will follow this year.

3.4. How to become an ecolight pilot?

Required is at least the national PPL licence, called RPPL-ECO with a test of theoretical and practical skills after a minimum of 30 hours flight exercices. For the licence pilots need also the JAR medical class 2. The licence allows to fly with passengers without additional requirements. The costs are between 5 and 7 thousend Euro. An upgrade to national RPPL-SEP or TMG or JAR PPL is possible and requires a practical skilltest.

3.5. Which foreign ultralights have permission to fly in Switzerland?

Allowed are only foreign ultralights with a certification according the german LTF-UL or the british BCAR Section S. With this restriction the aviation authorities will garantee an equivalent high technical standard in comparison to the swiss ecolights. In moment 38 different ultralight types have permission to fly into swiss airspace. End of june 2006 we organized in Mollis the 1st International Microlight Fly-In. I was very happy to see 100 visiting ultralights from foreign countries.

3.6. Which licence is necessary to visit Switzerland?

Switzerland accepts the foreign ultralight licence required to fly the respective aircraft, when pilots come to visit Switzerland. However to rent a swiss ecolight during holidays for example, it does not work. Pilots have first to transform their foreign ultralight-licence to a swiss RPPL-ECO.

3.7. Which airspace ultralights can use in Switzerland?

Swiss airspace gives pilots much freedom. In the airspaces GOLF and ECHO ultralight pilots can fly free, but they have to pay attention to the VFR principle: To see and to be seen. Airspace GOLF is up to 2‘000 feet over ground and covers the whole topographic like a carpet with the exceptions of CTR’s. Radio and transponder is not required. The airspace above GOLF is called ECHO and goes up to a maximum altitude of 10'000 feet over sea level outside the alps and up to 13’500 feet over the alps. In ECHO radio is not required, but at an altitude above 7'000 feet you must activate transponder code 7000. The minimum altitude over villages is 300 meters and outside of villages you have to fly at least 150 meters above ground. Pilots have to pay attention to airspace CHARLIE, CTR’s and TMA’s, especially around Basel and Zurich airports. The best would be to avoid

airspace CHARLIE by underflying TMA's and flying around CTR's. If you posess a JAR-PPL you are allowed to operate with ultralights also in airspace CHARLIE. Swiss aeronautical charts will inform you exactly about airspace structure, extensions and limits.

3.8. On which airfields ultralights are allowed to land?

Ecolights and the foreign ultralights are treatened in Switzerland like normal airplanes. Therefore ultralights are accepted on all swiss airfields and airports. Holders of an international JAR or ICAO licence have no restrictions. Holders of only a national licence may be refused to land on controlled airfields. In practice I don't know such cases. Anyway, Zurich I would not recommend, because at this big airport slots are required, landing fees are expensive and the procedures need a good flight experience. We operate normally on all swiss airfields with radio. At not controlled airfields the pilot is responsible himself to follow correct procedures. He must land as it is described in the visual approach chart and usually makes blind calls by radio. When you land on a controlled airfield, then a voice is required and you must follow tower instructions.

3.9. What about flightplan and customs?

When a ultralight pilot crosses the border and wants to land in Switzerland he must file a flightplan and land first on a customs airfield to clear customs. Then the pilot is free to fly within Switzerland. When you enter from the north I recommend as entry airfield for instance St.Gallen-Altenrhein. Between Friedrichshafen and St.Gallen there is a special agreement and a flightplan is not necessary. Other customs airfields are for instance Samedan, Birrfeld, Grenchen or Bern. Language on the radio normally is

english, but controllers will accept mostly german or french too. For detail informations pilots should directly contact the designated airfield when planning the trip.

3.10. What are our first experiences with foreign ultralights?

Since the opening I heard no negative things about foreign ultralight pilots, neither from the airfields side nor from skyguide, the swiss airspace control organisation. A friend who works on Samedan tower told me that ultralights are welcome and he sees them often making a stop between Italy and German.

3.11. What is to consider for safe flights in the alps?

Last week we saw that the alps can be dangerous even for professional Tornado pilots. The last crash in the mountains happened this wednesday with 2 dead persons, one of them an instructor. The alps look very tempting for many pilots. But the risks of flying in the alps are often underestimated, especially by flat country pilots. Normally, ultralight machines posess more than enough motorpower. So there are no problems with performance in the mountains. Ultralight pilots must observe other aspects, especially meterological conditions. On 25th June 2005 we had the first accident with a foreign ultralight in the alps resulting in the loss of the life of two friends. They participated on the 1st international Fly-In in Mollis where they started in late afternoon to a trip through the mountains to Italy. On their return in the evening after passing swiss border the crew must be flown into very turbulent air of a developping thunderstorm. The pilot lost control and one wing broke away in the air. With this tragic example I advise all pilots to be careful when flying in the alps. Every year we have some aeronautical

accidents in the alps always caused by human factors. Pilots loose control due to bad visibility or choose a wrong flight tactic when crossing the mountain relief. Especially for ultralights the air should be calm for safe flights. Flying in the alps is to avoided when stronger winds come up. You know perhaps the phenomenon called „Föhn“. Sky mostly looks blue and clear when this southern wind falls down on the northside of the alps producing heavy turbulences or strong windshears. Flying with ultralights into Föhn-winds is extremely dangerous. Another danger concerns thunderstorms during summer season. In the mountains weather change quickly. Once I was myself victim of such a weathertrap. It happened during fall when the sky often is blue, with no wind and all looks perfect for crossing the alpes. But such dreamconditions can have another danger. It was a wunderful November morning, when I started to a flight from Mollis to Locarno. When I came back over the mountains in the evening I was very surprised to see the northside of the alps covered with fog making a landing impossible. I had to divert to Samedan and was glad having enough fuel. Flying in the mountains or crossing the alps requires a serious flight preparation. I’m sure that all my colleagues at our airfields are happy to help you to make your flight as save as possible. Just don’t hesitate to ask for advice.

4. Conclusions

I come to the end and close with the following remarks:

- Switzerland welcomes ultralight pilots of all Europe countries
- Enjoy the wunderful landscape and the nice airfields
- Make serious flight-planning and weatherchecks especially before flying in the alps

- Enter always by a customs airfield and file a flightplan

And good to know...

- 2nd International Swiss Microlight Fly-In will take place on June 2008 in Mollis and I hope to see a lot of you there.

I thank you for your attention.
