



# Soar Sweden Viking Glide 2005 Bulletin #3



May 2005

# Welcome to Viking Glide



Photo: Mats Johansson



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## Partners



### Viking Glide logotype

Will be used on most of the material you get for Viking Glide. We use the WGC-logotype in parallel mostly for materials which shall be used at WGC2006 next year.

### Towing price is set

The price for towing during Viking Glide is set to SEK 300.

### Maps for sale

At the competition office there will be maps for sale. We have acquired a number of the Swedish 1:500 000 and prepared a set of 48 landing charts covering all interesting airfield in the competition area.

The price will be 150 SEK for the map and 150 SEK for the charts.

We can also plastic laminate maps for an additional 75 SEK.

If you want to reserve a plastic laminated map, please email Per Hedfors at [per.hedfors@telia.com](mailto:per.hedfors@telia.com)

### By car to Ekeby airfield

If you drive on the E20, please follow these directions to Ekeby airfield:

- Exit to the road 230 Katrineholm. The exit is easy to find by the McDonald sign.
- Drive south and pass straight through a roundabout and over the bridge.
- 1,9 km from E20 there is a roundabout. First exit right.
- After 1,5 km you'll find Ekeby airfield to the right, and signs will show you where to park.

Welcome

### Traffic rules in Sweden

When driving in Sweden there are some traffic rules to pay attention to.

#### Buckle up!

Wherever you are sitting in the car as driver or passenger, you must use the seat belt.

#### Right hand traffic

Sweden has right hand traffic. If your car is equipped with headlights for left hand traffic, you must cover the asymmetrical beam.

#### Speed limits

If you have a caravan or a trailer the speed limit is 80 km/h, even if the sign shows more.

#### Dipped headlights daily

To be seen, all vehicles must drive with at least dipped headlights, even in daytime.

#### Do not drink and drive.

If your blood alcohol content exceeds 0.2 promille or the concentration of alcohol in your expiratory air is 0.10 mg/l or more, this always means a penalty – either a stiff fine or a prison sentence.

#### In emergency, call 112

Dial 112 to call the police, the fire service, an ambulance or a doctor.

More information about driving in Sweden, you'll find at the web site of Swedish Road Administration (Vägverket) <http://www.vv.se>



## Viking Glide is certified as a "Green event"

The aim of the competition management is to make the competition as environmentally friendly as possible. We want the area to look the same after the competition as before.

As a result of our environmental work, the competition has been entitled to carry the logotype of "Green event" (Grönt arrangemang), issued by the Swedish Sports Confederation.

As a pilot, team member or an accompanying person, you can contribute to our work by following the guidelines listed here.

### Guidelines

#### Use our recycling station

and the marked trash cans provided for plastic, aluminium cans, glass, paper, batteries etc

**Refund** glass and plastic bottles and aluminium cans in the stores.

**Avoid unnecessary driving** on the airfield.

**Be reasonable in your consumption** of energy and water.



## Would you like to be towed by a Volvo to an elevation of 800 m?

*How about to let your glider be towed by a Volvo. At Ekeby you have a chance to be towed by a PiVo, a combination of Piper Pawnee and Volvo. The story behind this incredible aircraft is interesting and started long before the Pawnee got a Volvo engine in the front.*

Ekeby airfield is located in the vicinity of a medium sized town and with a lot of people living close to the airplanes.

It was in the early 80's that Lars Broberg, towing manager at Viking Glide, wanted to decrease the disturbance from the towing aircrafts.

Lasse had earlier initiated the use of the old crop duster aircraft Piper Pawnee to tow gliders. But the Pawnee was noisy both from the engine and the propeller. Lasse developed a series of silencers for the Pawnee and reduced the noise. By installing a tow line winch he eliminated the drop procedure which reduced the disturbance of low flying aircrafts. It also reduced the need for ground personell. This system is now used all over Europe.

The two blade propeller "barked" a lot and was the main noise source. He let the Hoffman factory make a four-blade-propeller for the Pawnee. This had not the same efficiency as the two-blade, but was much more silent.

During the test of the silencer he was thinking about to use a modern and more efficient engine. A mo-

dern car engine can easily achieve 22–24 % when the Lycoming was just about 16%. In the end of 80's, Lasse and number of old technicians started to investigate the use of a Volvo 3 liter 6 cylinder aluminium engine.

The *elderly-men-day-care*, as they were called, found out that most engine converting projects stranded because they tried to convert the engine to the plane. The group decided to convert the plane to the engine instead. With help of Bosse Eriksson, who had worked professionally with Volvo engines for over 40 years, they started up. First they stripped off unnecessary functions in the motor control unit such as AC, gearbox control etc

Two critical systems are the top dead centre (TDC) indicator and the fuel pump. If any of these units failed, the engine stops. The group doubled them for safety. Any other engine failures would still allow the pilot to make a controlled motor landing. With these modifications and the Volvo engine's original ignition system, the safety was trippled compared to the original engine.

The gearing was made with a drive

belt that is more effective than cogwheels or chains. The propeller was a huge 2,5 meter two-blade running on a speed of 1750 rpm. With a gearing of 3:1 the engine ran at 5250 rpm and gave almost the same power as the Lycoming with less than 35% fuel. And less noise.

The last modification, dated May 11, is with a propeller with less pitch that will give the 185 hp Volvo the same torque as the Lycoming 235 hp. Now the fuel consumption will be slightly higher, but still much lower than the original engine.

Totally, the PiVo has decreased the running cost, reduced the maintenance and minimized the noise. When in Eskilstuna, take a closer look at the PiVo and talk to the men behind it.

*This is an extract from an article written by Bo Eriksson. Translated and edited by KG Jonsson-Finne.*



Lars Broberg at the PiVo

Photo: Bo Eriksson

## Changes in the competition management

The deputy director and coordinator för the organizing committee Fredrik Jaresved and our Press Officer Odd Wikner has resigned.

Sakari "Sakka" Havbrandt will take over as Deputy Director, he is also in charge of operations.

The new Press Officer is Lars-Åke Allerhed.

## Meteorologist men & women

We are happy to have Bernt Olofsson as our Chief Forecaster, assisted by Tomas and Ebba Mårtensson and Anna-Karin Bergström.

They are all experienced glider pilots as well as professional forecasters with a special interest in gliding meteorology. Bernt is also active in the OSTIV Met Panel.

## Local Procedures & self-briefing

Are finally published on the web site. The Operational Procedures are also published as well. We have tried to make a new approach on this subject.

Instead of the usual maps and wordings, we have made a power point presentation which is a "self briefing". As this is a new approach we will appreciate any feedback. And please study it carefully!

## Sponsors



## Insurances

Please note that it is mandatory for all (pilots, crews, family members etc) that are taking part in some way in Viking Glide to have a valid personal medical insurance (the criterias are given in the registration forms). Make sure that you bring the relevant documents to Eskilstuna!

Also make sure that your glider insurance comply to the new EU regulations. There is no possibility to buy insurances on site so you have to arrange all insurances before leaving for Eskilstuna.

## Training

The first training Day is Monday June 13th. Briefing is at 1000 hours and we will set tasks for all classes.

It is not mandatory to fly the task but we encourage you to do so. This gives the organization as much practice as possible, before we start "in earnest" on Wednesday June 16th.

## Money exchange

The currency in Sweden is Swedish kronor, SEK. The exchange rate is about 9 SEK for 1 EUR or 7.2 SEK for 1 USD (May 28).

In Eskilstuna, there are many banks and exchange offices to help you to get SEK. However, Eskilstuna Airclub accepts credit cards (not American Express) for the expenses (food, towing etc) during the com-

petition.

## No doping

FAI condemns the use of substances banned by the World Anti-Doping Agency (WADA).

Such substances may degrade pilot performance and compromise flight safety. The activities, defined as "doping", are contrary to the FAI's principles of fair play, and are potentially damaging to competitors health and safety.

Not only pilots, but all team members can be subject to doping tests. Remember also that the day after a wet night, could cause a positive doping test, which of course is not that positive for you.

If you have a prescription for a medical substance, remember to bring it and handle it to the Competition Director in a sealed envelope.

You will find more useful information about doping at [www.fai.org/medical/nodoping.asp](http://www.fai.org/medical/nodoping.asp) and [www.wada-ama.org](http://www.wada-ama.org)

## WLAN at Ekeby

At Ekeby airfield there is a radio-LAN covering the club-house, the closest hangars and the camping. There will not be possible to connect at the grid or where the planes are parked.

If you need interface cards for the WLAN, there are computer stores in the city of Eskilstuna.

## Calendar 2005

January 31	Deadline for entries Deadline for payment of entry fees
February 15	Announcement of additional entries
March 1	Deadline for additional entries
March 31	Deadline for payment of entry fee for additional entries
June 12	Check in opens at 12.00 hours
June 13 – 15	Training period with tasks in competition area
June 16 – 23	Competition period, Viking Glide
June 23	Closing banquet and awards prize giving ceremony

### Description and topography

Eskilstuna Ekeby is located in the Mälaren Valley with Lake Mälaren in the north and Lake Hjälmaren to south-west. The surrounding plains and low hills are partly covered with forests.

The competition area, NW of Eskilstuna, shows a variety of topography with hills and valleys.

There are good outlanding possibilities in the area.

### Weather survey

In a strong high pressure situation with a relatively low inversion you can expect blue thermals up to 1200–1500 m with a strength of 1–2 m/s. Thermals are most likely to be found over the hills and forests. Avoid big lakes and plains. Normally it is possible to fly cross-country from noon to 6 or 7 pm.

If the inversion is a little bit higher, there are good chances for cumulus clouds with base around 2000 m and then the lift increases to 2–4 m/s. Such days, thermals will start around 10

am and end around 7 pm. The best conditions are found over the hills and forests, with blue holes around big lakes and valleys.

The best soaring situation is in a cold advection with light to moderate winds from NW, N or NE and with a high pressure or a high pressure ridge to the west. Then you can expect 2–3/8 cumulus with cloud base well above 2000 m, sometimes up to 3000 m. Lift can be really strong with 3–5 m/s as normal values.

Thermals start very early, around 9 am and end at 8 or 9 pm. In these

conditions you can fly long tasks with speeds well exceeding 120 km/h in a standard class glider.

If the amount of cumulus exceeds 4/8, there is a risk of spreading out. Then the lift can vary a lot, between 1 and 5 m/s. The cloudbase varies between 1500 m and 2500 m. But you can still find suitable conditions for soaring. In these situations you might be helped by "bad" areas, such as lakes and plains. There you



can find blue holes which can be heated by the sun.

Sometimes showers occur. If there is a southerly wind the conditions will not be very good. But if the wind comes from the west or north there are good chances for a very rapid improvement. Then the cloudbase can rise from 1200 m to more than 2000 m, and the showers will disappear.

Thunderstorms are not very common until later in the summer, but can of course occur in certain situations. They are mostly isolated, and it is possible to fly through or around.

If a warm front is approaching with thin cirrus clouds ahead, or just patches of cirrus clouds passing by, the effect on the thermals can be very different. Sometimes in warm air masses (not very common in the spring) the high clouds cut off all thermals, and at other times with more unstable air it appears that they have no negative effect at all.

After a warm front passage with rain, strato-cumulus are likely to form. In the morning the cloud base can be below 1000 m, maybe up to 1600–1800 m. The amount of clouds may then decrease from around 4/8 to 1–2/8. In these situations soaring can be somewhat tricky with bad areas mixed with rather good ones.

Sometimes waves can occur in the inversion layer, and sometimes there are weak orographic waves. But in general, waves will not be of much importance.

Sea breeze is frequent along the coast. The breeze can advance inland from the Gävle Bay NNE of Eskilstuna,

as far as 100 km, following the Dalälven valley and reaching the town of Avesta. Blue holes will occur around big lakes, such as Siljan, Vänern and Hjälmaren. Thermal streets are not uncommon and convergence zones can be found over the ridges, more or less precise.

One thing is sure, the weather will be very interesting and varying. It will give pilots very good soaring over a beautiful country, and it will test the skill of all competitors. Weather conditions will also favour individual flying, gaggles have never been any problem in Sweden.

## ✦ Officials

CD: **Robert Danewid**

Deputy CD: **Sakka Havbrandt**

Economy:

**Christer Hård af Segerstad**

Secretary: **Ann-Lis Olsson**

President of Eskilstuna Airclub:

**Agneta Engström**

Arena: **Ulf Broberg**

**& Silvana Boro**

Environment: **Riikka Vilkuna**

**& Lars-Åke Allerhed**

Competition office: **Per Hedfors**

Meteorologist: **Bernt Olofsson**

Starter: **TBA**

ATC: **TBA**

Towing: **Lars Broberg**

Technical control: **Torleif Hiort**

IT: **Mattias Hemborg**

Scoring: **Pall Einarsson**

Press & Media: **Lars-Åke Allerhed**

Webmaster: **Jan Lovén**

Web- and Bulletin editor:

**K G Jonsson-Finne**

**TBA = To be announced**

President of Eskilstuna Airclub:

### **Agneta Engström**

Engströms is a flying family. Agneta was earlier an active glider pilot, but is administrator now.

President of Eskilstuna Airclub.

Profession: Project Director at the Mälardalens University.



Technical control: **Torleif Hiort**

Active glider pilot in Uppsala FK.

Instructor since 1963.

IMC, AVA-instructor.

About 5000 h.

Chairman of the Swedish Soaring Federation's Training Panel.

Air accident Investigator/Air safety official.

Profession: Examination engineer



Arena: **Ulf Broberg**

Age 51 and active pilot at Eskilstuna.

Pilot since 1969 with 1100 h glider and 100 h motor.

Participated in several gliding competitions.

Competition leader of SM 1999 and Eskilstuna Open 2000.

Member of the Swedish Team in two WGC.



## ✦ Web links

[www.wgc2006.se](http://www.wgc2006.se)

The official web site for Viking Glide and WGC 2006

[www.segelflyget.se](http://www.segelflyget.se)

The Swedish Soaring Federation

[www.airsport.se](http://www.airsport.se)

The Swedish Air Sport Federation

[www.fai.org](http://www.fai.org)

The World Air Sports Federation

[www.efk.nu](http://www.efk.nu)

Eskilstuna Flygklubb, a partner to WGC 2006 and operating on Ekeby airfield

[www.uppsalaflk.com](http://www.uppsalaflk.com)

Uppsala Flygklubb, a partner to WGC 2006

[www.eskilstuna.se](http://www.eskilstuna.se)

The City of Eskilstuna