

**LTF flight test report**

Manufacturer Niviuk Gliders
Address Air Games S.L. C/Doctore Cordina, 29 Bajos
 17165 La Celler de Ter Girona
 Spain
Representive Nef Olivier
Type of glider Koyot L
Trimmer not available

Date of flight test: 29/07/2008
Place of test: Villeneuve

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|-------|
| LTF 1 |
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Test Pilot Claude Thurnheer
Harness Niviuk - Hamak
Total weight in flight 90 kg

Alain Zoller
Sol - Slider L
115 kg

| | | Min weight | | Max weight | |
|--|--|---|-----|---|-----|
| 1. Take-off | | | | | |
| | Inflation Behaviour | evenly, immediately | 1 | evenly, immediately | 1 |
| | Rising behaviour | immediately comes over pilot | 1 | immediately comes over pilot | 1 |
| | Take off speed | stallspeed < 30 km/h | pos | stallspeed < 30 km/h | pos |
| | Take off handling | easy | 1 | easy | 1 |
| 2. Straight Flight | | | | | |
| | Trim speed at minimum take off weight | > 30 km/h | pos | > 30 km/h | pos |
| | Speed range | > 10 km/h | pos | > 10 km/h | pos |
| | Roll Damping | high | 1 | high | 1 |
| | Pitching | not available | 0 | not available | 0 |
| | Yaw stability | not available | 0 | not available | 0 |
| 3. Turn handling | | | | | |
| | Control travel | high | pos | high | pos |
| | Agility | not available | 0 | not available | 0 |
| | Control pressure increase | high increase | 1 | high increase | 1 |
| | Spin tendency | not available | 1 | not available | 1 |
| | Control without brakes | yes | pos | yes | pos |
| 4. Symmetrical Stall using Brakes | | | | | |
| | Deep stall limit | > 75 cm | 1 | > 75 cm | 1 |
| | Exit of deep Stall | spontaneous, quickly | 1 | spontaneous, quickly | 1 |
| | Standard exit | yes | pos | yes | pos |
| | Full stall limit | > 80 cm | 1 | > 80 cm | 1 |
| | Full stall with full steering way | soft stall | pos | soft stall | pos |
| | Increase in steering power | high | 1 | high | 1 |
| 5. Front collapse | | | | | |
| | A-Riser Travel until collapse | high > 10 cm | pos | high > 10 cm | pos |
| | Pre-Acceleration | not available | 0 | not available | 0 |
| | Opening behaviour | spontaneous, quickly = <1,5 s | 1 | spontaneous, quickly = <1,5 s | 1 |
| | <i>Asymmetrical, Turn tendency- Change of course- Rate of turn- Pitch and Roll angle- Loss of altitude- Stabilisation- Opening behaviour</i> | | | | |
| | With accelerator | | | | |
| | A-Riser Travel until collapse | high > 10 cm | pos | high > 10 cm | pos |
| | Pre-Acceleration | not available | 0 | not available | 0 |
| | Opening behaviour | spontaneous, quickly = <1,5 s | 1 | spontaneous, quickly = <1,5 s | 1 |
| | <i>Asymmetrical, Turn tendency- Change of course- Rate of turn- Pitch and Roll angle- Loss of altitude- Stabilisation- Opening behaviour</i> | | | | |
| 6. Asymmetric Collapse | | | | | |
| | With 50% collapse | | | | |
| | Maximum recovery behaviour | <90°- <360°- average - <45°- average - spontaneous - spontaneous | 1 | <90°- <360°- average - <45°- average - spontaneous - spontaneous | 1 |
| | <i>Turn tendency- Change of course- Rate of turn- Pitch and Roll angle- Loss of altitude- Stabilisation- Opening behaviour</i> | | | | |
| | With 75% collapse | | | | |
| | Maximum recovery behaviour | <90°- <360°- average - <45°- average - spontaneous - spontaneous | 1 | <90°- <360°- average - <45°- average - spontaneous - spontaneous | 1 |
| | <i>Turn tendency- Change of course- Rate of turn- Pitch and Roll angle- Loss of altitude- Stabilisation- Opening behaviour</i> | | | | |
| | With 50% collapse and accelerator | | | | |
| | Maximum recovery behaviour | <90°- <360°- average - <45°- average - spontaneous - spontaneous | 1 | <90°- <360°- average - <45°- average - spontaneous - spontaneous | 1 |
| | <i>Turn tendency- Change of course- Rate of turn- Pitch and Roll angle- Loss of altitude- Stabilisation- Opening behaviour</i> | | | | |
| | With 75% collapse and accelerator | | | | |
| | Maximum recovery behaviour | <180°- <360° - slight - <45°- average - spontaneous - spontaneous | 1 | <180°- <360° - slight - <45°- average - spontaneous - spontaneous | 1 |
| | <i>Turn tendency- Change of course- Rate of turn- Pitch and Roll angle- Loss of altitude- Stabilisation- Opening behaviour</i> | | | | |
| 7. Countersteering an asymmetric collapse | | | | | |
| | Stabilisation | spontaneous, countersteering easy | 1 | spontaneous, countersteering easy | 1 |
| | Turn in opposite direction | easy, no tendency to stall | 1 | easy, no tendency to stall | 1 |
| | Control pressure increase | high increase | 1 | high increase | 1 |
| | Control travel | high | pos | high | pos |
| 8.Full Stall Symmetrical Exit | | | | | |
| | Behaviour after entry | stable | pos | stable | pos |
| | Reaction | slight shoot forward <30° | pos | slight shoot forward <30° | pos |
| | Reaction if asymmetric collapse | not available | 0 | not available | 0 |
| | <i>Turn tendency- Change of course- Rate of turn- Pitch and Roll angle- Loss of altitude- Stabilisation- Opening behaviour</i> | | | | |

| | | | | | |
|--------------------------------------|--|--|-----|--|-----|
| | Reaction if symmetric collapse | not available | 0 | not available | 0 |
| | <i>Asymmetrical, Turn tendency- Change of course- Rate of turn- Pitch and Roll angle- Loss of altitude- Stabilisation- Opening behaviour</i> | | | | |
| 9. Big ears | Entry | easy | pos | easy | pos |
| | Exit | spontaneous, quickly | 1 | spontaneous, quickly | 1 |
| | If not spontaneously exit; asymm. collapse | not available | 0 | not available | 0 |
| | <i>Turn tendency- Change of course- Rate of turn- Pitch and Roll angle- Loss of altitude- Stabilisation- Opening behaviour</i> | | | | |
| | If not spontaneously exit; symm. collapse | not available | 0 | not available | 0 |
| | <i>Asymmetrical, Turn tendency- Change of course- Rate of turn- Pitch and Roll angle- Loss of altitude- Stabilisation- Opening behaviour</i> | | | | |
| | With accelerator | | | | |
| | Entry | easy | pos | easy | pos |
| | Exit | spontaneous, quickly | 1 | spontaneous, quickly | 1 |
| | If not spontaneously exit; asymm. collapse | not available | 0 | not available | 0 |
| | <i>Turn tendency- Change of course- Rate of turn- Pitch and Roll angle- Loss of altitude- Stabilisation- Opening behaviour</i> | | | | |
| | If not spontaneously exit; symm. collapse | not available | 0 | not available | 0 |
| | <i>Asymmetrical, Turn tendency- Change of course- Rate of turn- Pitch and Roll angle- Loss of altitude- Stabilisation- Opening behaviour</i> | | | | |
| 10. Spin from straight flight | Exit | spontaneous | 1 | spontaneous | 1 |
| | Reaction | not available | 0 | not available | 0 |
| | Reaction, if asymmetric collapse | not available | 0 | not available | 0 |
| | <i>Turn tendency- Change of course- Rate of turn- Pitch and Roll angle- Loss of altitude- Stabilisation- Opening behaviour</i> | | | | |
| | Reaction, if symmetric collapse | not available | 0 | not available | 0 |
| | <i>Asymmetrical, Turn tendency- Change of course- Rate of turn- Pitch and Roll angle- Loss of altitude- Stabilisation- Opening behaviour</i> | | | | |
| 11. Spin from Turn | Reaction | slight shoot forward <30° | pos | slight shoot forward <30° | pos |
| | Reaction if asymmetric collapse | not available | 0 | not available | 0 |
| | <i>Turn tendency- Change of course- Rate of turn- Pitch and Roll angle- Loss of altitude- Stabilisation- Opening behaviour</i> | | | | |
| | Reaction if symmetric collapse | not available | 0 | not available | 0 |
| | <i>Asymmetrical, Turn tendency- Change of course- Rate of turn- Pitch and Roll angle- Loss of altitude- Stabilisation- Opening behaviour</i> | | | | |
| 12. Spiral dive | Spin tendency | not available | 1 | not available | 1 |
| | Entry | easy | 1 | easy | 1 |
| | Exit | not available | 0 | not available | 0 |
| | Exit if stable steep spiral > 14 m/s | no acceleration, easy controllable sink rate and | 1 | no acceleration, easy controllable sink rate and | 1 |
| | Sink rate after 720° [m/s] | 18 m/s | | 20 m/s | |
| 13. B Line stall | Entry | easy | 1 | easy | 1 |
| | Exit | spontaneous | 1 | spontaneous | 1 |
| | If not spontaneously with asym. collapse | not available | 0 | not available | 0 |
| | <i>Turn tendency- Change of course- Rate of turn- Pitch and Roll angle- Loss of altitude- Stabilisation- Opening behaviour</i> | | | | |
| | If not spontaneously with symm. collapse | not available | 0 | not available | 0 |
| | <i>Asymmetrical, Turn tendency- Change of course- Rate of turn- Pitch and Roll angle- Loss of altitude- Stabilisation- Opening behaviour</i> | | | | |
| 14. Landing | Entry | average | 1 | average | 1 |
| | Landing speed | not available | 0 | not available | 0 |
| | Landing behaviour | easy | 1 | easy | 1 |
| Comments of test pilot | Comments | no | | no | |



Air Turquoise SA

Route du Pré-au-Comte 8
Case postale 10
CH- 1844 Villeneuve
Switzerland
mobile: +41 79 202 52 30
Tel. no : +41 21 965 65 65
fax : +41 219 65 65 68
email: info@para-test.com
homepage: www.para-test.com

ISO 9001
BUREAU VERITAS
Certification



ISO 9001:2000

pos = positive
neg = negative
x = relevant if extreme
na = not available