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AIR TURQUOISE SA certified by



Flight test report: EN

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Manufacturer	Niviuk Gliders / Air Games S.L.	Certification number	PG_0525.2012
Address	C. Del Ter, 6 – Nave D 17165 La Cellera de Ter Girona Spain	Date of flight test	11. 05. 2012
Representative	Nef Olivier	Place of test	Villeneuve
Glider model	Koyot 2 28	Classification	Α
Trimmer	no		
	Test pilot	Thurnheer Claude	Zoller Alain
	Harness	Niviuk - Hamak M	Sol Paragliders - Slider L
	Total weight in flight (kg)	92	117
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Harnes	s Niviuk - Hamak M		Sol Paragliders - Slider L	
Total weight in flight (kg) 92		117	
1. Inflation/Take-off	Α			
Rising behaviour	Smooth, easy and constant rising	А	Smooth, easy and constant rising	A
Special take off technique required	No	А	No	A
2. Landing	Α			
Special landing technique required	No	А	No	A
3. Speed in straight flight	A			
Trim speed more than 30 km/h	Yes	А	Yes	A
Speed range using the controls larger than 10 km/h	Yes	А	Yes	A
Minimum speed	Less than 25 km/h	А	Less than 25 km/h	A
4. Control movement	Α			
Max. weight in flight up to 80 kg				
Symmetric control pressure / travel	not available	0	not available	C
Max. weight in flight 80 kg to 100 kg				
Symmetric control pressure / travel	Increasing / greater than 60 cm	А	not available	(
Max. weight in flight greater than 100 kg				
Symmetric control pressure / travel	not available	0	Increasing / greater than 65 cm	1
5. Pitch stability exiting accelerated flight	Α			
Dive forward angle on exit	Dive forward less than 30°	А	Dive forward less than 30°	A
Collapse occurs	No	А	No	/
6. Pitch stability operating controls during accelerated flight	Α			
Collapse occurs	No	А	No	A
7. Roll stability and damping	Α			
Oscillations	Reducing	А	Reducing	/
8. Stability in gentle spirals	Α			
Tendency to return to straight flight	Spontaneous exit	А	Spontaneous exit	/
9. Behaviour in a steeply banked turn	Α			
Sink rate after two turns	12 m/s to 14 m/s	А	12 m/s to 14 m/s	
10. Symmetric front collapse	Α			
Entry	Rocking back less than 45°	А	Rocking back less than 45°	/
Recovery	Spontaneous in less than 3 s	А	Spontaneous in less than 3 s	
Dive forward angle on exit / Change of course	Dive forward 0° to 30° / Keeping course	A	Dive forward 0° to 30° / Keeping course	/
Cascade occurs	No	А	No	/
With accelerator				

FactorySportaneous in less than 3 a. Dire forward 0 to 30° / KeepingA Sportaneous in less than 3 a. Cascade occursA Dire forward 0 to 30° / KeepingA11. Exting deep stall (parachutal stall)ANoADeep stall achievedRoANoABaccoverySportaneous in less than 3 a. Cascade occursANoADire forward 0 to 30° / KeepingANoANoACascade occursChanging occurse less than 4 a. Sportaneous in less than 3 a. AASportaneous in less than 3 a. AACascade occursChanging occurse less than 6 a. Cascade occursCascade occursANoA12. High angle of attack recoveryAASportaneous in less than 3 a. ASportaneous in less than 3 a. ANoACascade occursNoANoANoACascade occursNoANoAACascade occursNoANoAACascade occurs (other than collapses)NoANoACascade occurs (other than collapses)NoANoAACascade occurs (other than collapses)NoANoAACascade occurs (other than collapses)NoANoAACascade occurs (other than collapses)NoANoAACascade occursNoANoAAACascade occursNoAN					
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Cascade occursNoANoAWith 50% collapse and acceleratorChange of course until re-inflation / Maximum dive forward or roll angleLess than 90° / Dive or roll angle 0° to 15°ALess than 90° / Dive or roll angle 0° to 15°ARe-inflation behaviourSpontaneous re-inflationASpontaneous re-inflationASpontaneous re-inflationATotal change of courseLess than 360°ALess than 360°ALess than 360°ACollapse on the opposite side occursNoANoATwist occursNoANoACascade occursNoANoAWith 75% collapse and acceleratorLess than 90° / Dive or roll angle roll angleALess than 90° / Dive or roll angle 15° to 45°AChange of course until re-inflation / Maximum dive forward or roll angleLess than 90° / Dive or roll angle 15° to 45°ALess than 90° / Dive or roll angle 15° to 45°ARe-inflation behaviourSpontaneous re-inflationASpontaneous re-inflationACollapse on the opposite side occursLess than 360°ALess than 360°ACollapse on the opposite side occursNoANoACollapse on the opposite side occursNoANoA<	Collapse on the opposite side occurs	No	А	No	А
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Change of course until re-inflation / Maximum dive forward or roll angleLess than 90° / Dive or roll angle 0° to 15°ALess than 90° / Dive or roll angle 0° to 15°ARe-inflation behaviourSpontaneous re-inflationASpontaneous re-inflationATotal change of courseLess than 360°ALess than 360°ACollapse on the opposite side occursNoANoATwist occursNoANoACascade occursNoANoAWith 75% collapse and acceleratorLess than 90° / Dive or roll angle 15° to 45°ALess than 90° / Dive or roll angle 15° to 45°ARe-inflation behaviourSpontaneous re-inflationASpontaneous re-inflationAOtal angleSpontaneous re-inflationALess than 90° / Dive or roll angle 15° to 45°AChange of course until re-inflation / Maximum dive forward or roll angleLess than 90° / Dive or roll angle 15° to 45°ALess than 360°ARe-inflation behaviourSpontaneous re-inflationASpontaneous re-inflationATotal change of courseLess than 360°ALess than 360°ACollapse on the opposite side occursNoANoATwist occursNoANoACascade occursNoANoATwist occursNoANoACascade occursNoANoAAble to keep courseYesYesA <td< td=""><td>Cascade occurs</td><td>No</td><td>А</td><td>No</td><td>А</td></td<>	Cascade occurs	No	А	No	А
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Total change of courseLess than 360°ALess than 360°ACollapse on the opposite side occursNoANoATwist occursNoANoACascade occursNoANoAWith 75% collapse and acceleratorLess than 90° / Dive or roll angle 15° to 45°ALess than 90° / Dive or roll angle 15° to 45°ARe-inflation behaviourSpontaneous re-inflationASpontaneous re-inflationATotal change of courseLess than 360°ALess than 360°ACollapse on the opposite side occursNoASpontaneous re-inflationACollapse on the opposite side occursNoANoACollapse on the opposite side occursNoANoATwist occursNoANoATotal change of courseNoANoACollapse on the opposite side occursNoANoATwist occursNoANoAACascade occursNoANoAACascade occursNoANoAAAble to keep courseYesAYesAYesA	Change of course until re-inflation / Maximum dive forward or roll angle		A		A
Collapse on the opposite side occursNoANoATwist occursNoANoACascade occursNoANoAWith 75% collapse and acceleratorNoANoAChange of course until re-inflation / Maximum dive forward or roll angleLess than 90° / Dive or roll angle 15° to 45°ALess than 90° / Dive or roll angle 15° to 45°ARe-inflation behaviourSpontaneous re-inflationASpontaneous re-inflationATotal change of courseLess than 360°ALess than 360°ACollapse on the opposite side occursNoANoACollapse occursNoANoATwist occursNoANoATotal change of courseNoANoACollapse on the opposite side occursNoANoATwist occursNoANoACascade occursNoANoAAble to keep courseYesAYesA	Re-inflation behaviour	Spontaneous re-inflation	А	Spontaneous re-inflation	А
Twist occursNoANoACascade occursNoANoAWith 75% collapse and acceleratorEss than 90° / Dive or roll angleALess than 90° / Dive or roll angleAChange of course until re-inflation / Maximum dive forward or roll angleLess than 90° / Dive or roll angleALess than 90° / Dive or roll angle 15° to 45°ALess than 90° / Dive or roll angleARe-inflation behaviourSpontaneous re-inflationASpontaneous re-inflationASpontaneous re-inflationATotal change of courseLess than 360°ALess than 360°ALess than 360°ACollapse on the opposite side occursNoANoATwist occursNoANoACascade occursNoANoATotal change of courseNoANoACollapse on the opposite side occursNoANoATwist occursNoANoACascade occursNoANoAAble to keep courseYesAYesA	Total change of course	Less than 360°	А	Less than 360°	А
Cascade occursNoANoAWith 75% collapse and accelerator	Collapse on the opposite side occurs	No	А	No	А
With 75% collapse and acceleratorChange of course until re-inflation / Maximum dive forward or roll angleLess than 90° / Dive or roll angle 15° to 45°ALess than 90° / Dive or roll angle 15° to 45°ARe-inflation behaviourSpontaneous re-inflationASpontaneous re-inflationATotal change of courseLess than 360°ALess than 360°ACollapse on the opposite side occursNoANoATwist occursNoANoACascade occursNoANoA 15. Directional control with a maintained asymmetric collapse AYesAYes	Twist occurs	No	А	No	А
Change of course until re-inflation / Maximum dive forward or roll angleLess than 90° / Dive or roll angle 15° to 45°ALess than 90° / Dive or roll angle 15° to 45°ARe-inflation behaviourSpontaneous re-inflationASpontaneous re-inflationATotal change of courseLess than 360°ALess than 360°ACollapse on the opposite side occursNoANoATwist occursNoANoACascade occursNoANoA 15. Directional control with a maintained asymmetric collapse AYesAYesAYesAYesA	Cascade occurs	No	А	No	А
roll angle15° to 45°15° to 45°Re-inflation behaviourSpontaneous re-inflationASpontaneous re-inflationATotal change of courseLess than 360°ALess than 360°ACollapse on the opposite side occursNoANoATwist occursNoANoACascade occursNoANoA 15. Directional control with a maintained asymmetric collapse AYesAYes	With 75% collapse and accelerator				
Total change of courseLess than 360°ALess than 360°ACollapse on the opposite side occursNoANoATwist occursNoANoACascade occursNoANoA 15. Directional control with a maintained asymmetric collapse AYesAYes			A		A
Collapse on the opposite side occursNoANoATwist occursNoANoACascade occursNoANoA15. Directional control with a maintained asymmetric collapseAYesAYes	Re-inflation behaviour	Spontaneous re-inflation	А	Spontaneous re-inflation	А
Twist occursNoANoACascade occursNoANoA15. Directional control with a maintained asymmetric collapseAANoAAble to keep courseYesAYesA	Total change of course	Less than 360°	А	Less than 360°	А
Cascade occursNoANoA15. Directional control with a maintained asymmetric collapseAAVesAAble to keep courseYesAYesA	Collapse on the opposite side occurs	No	А	No	А
15. Directional control with a maintained asymmetric collapseAAble to keep courseYesAYesAYes	Twist occurs	No	А	No	А
collapse Able to keep course Yes A Yes A	Cascade occurs	No	А	No	А
		Α			
180° turn away from the collapsed side possible in 10 s. Vas. A Vas	Able to keep course	Yes	А	Yes	А
Too turn away norm the conapsed side possible in to s Tes A Tes A	180° turn away from the collapsed side possible in 10 s	Yes	А	Yes	А
Amount of control range between turn and stall or spinMore than 50 % of the symmetric control travelAMore than 50 % of the symmetricA	Amount of control range between turn and stall or spin		A		A

16. Trim speed spin tendency	Α			
Spin occurs	No	А	No	А
17. Low speed spin tendency	Α			
Spin occurs	No	А	No	А
18. Recovery from a developed spin	Α			
Spin rotation angle after release	Stops spinning in less than 90°	А	Stops spinning in less than 90°	А
Cascade occurs	No	А	No	А
19. B-line stall	Α			
Change of course before release	Changing course less than 45°	А	Changing course less than 45°	А
Behaviour before release	Remains stable with straight span	A	Remains stable with straight span	А
Recovery	Spontaneous in less than 3 s	А	Spontaneous in less than 3 s	А
Dive forward angle on exit	Dive forward 0° to 30°	А	Dive forward 0° to 30°	А
Cascade occurs	No	А	No	А
20. Big ears	Α			
Entry procedure	Dedicated controls	А	Dedicated controls	А
Behaviour during big ears	Stable flight	А	Stable flight	А
Recovery	Spontaneous in less than 3 s	А	Spontaneous in less than 3 s	А
Dive forward angle on exit	Dive forward 0° to 30°	А	Dive forward 0° to 30°	А
21. Big ears in accelerated flight	А			
Entry procedure	Dedicated controls	А	Dedicated controls	А
Behaviour during big ears	Stable flight	А	Stable flight	А
Recovery	Spontaneous in less than 3 s	А	Spontaneous in less than 3 s	А
Dive forward angle on exit	Dive forward 0° to 30°	А	Dive forward 0° to 30°	А
Behaviour immediately after releasing the accelerator while maintaining big ears	Stable flight	A	Stable flight	А
22. Behaviour exiting a steep spiral	Α			
Tendency to return to straight flight	Spontaneous exit	А	Spontaneous exit	А
Turn angle to recover normal flight	Less than 720°, spontaneous recovery	A	Less than 720°, spontaneous recovery	А
Sink rate when evaluating spiral stability [m/s]	16		17	
23. Alternative means of directional control	А			
180° turn achievable in 20 s	Yes	А	Yes	А
Stall or spin occurs	No	А	No	А
24. Any other flight procedure and/or configuration described in the user's manual	0			
Procedure works as described	not available	0	not available	0
Procedure suitable for novice pilots	not available	0	not available	0
Cascade occurs	not available	0	not available	0
25. Comments of test pilot				
Comments				