## Flight test report

Manufacturer Trekking Address B.P. 41

13410 Lambesc France

Representive None
Type of glider Vanquish S
Trimmer not available

 Certification number
 PG 093.2007

 Date of flight test
 06/07/2007

 Place of test
 villeneuve



## Classification C

Test Pilot Seiko Fukuoka Claude Thurnheer Harness supair altiplume Sky Axel II
Total weight in flight 65 kg 85 kg

		Min weight	Max weight	
1. Inflation/Tal		will weight	max weight	
	Rising behaviour Special take off technique required	Smooth, easy and constant rising ANo A	. ,	A A
2. Landing				
2 Enood in other	Special landing technique required	No A	No	Α
3. Speed in str	Trim speed more than 30 km/h	Yes A	Yes	Α
	Speed range using the controls larger than 10 km/h	Yes A		Α
	Minimum speed	Less than 25 km/h		Α
4. Control mov				
	Max. weight in flight up to 80 kg			
	Symmetric control pressure/travel	Increasing, Greater than 55 cm A	not available	0
	Max. weight in flight 80 kg to 100 kg Symmetric control pressure/travel	not available (	Increasing, 45 cm to 60 cm	С
	Max. weight in flight greater than 100 kg	not available	Increasing, 45 cm to 60 cm	C
	Symmetric control pressure/travel	not available (	not available	0
5. Pitch stabili	ty exiting accelerated flight			
	Dive forward angle on exit	Dive forward less than 30° A		Α
	Collapse occurs	No A	No	Α
6. Pitch stabili	ty operating controls during accelerated flight	No A	. No	^
7 Poll stability	Collapse occurs y and damping	NO A	INO	Α
7. Itoli Stability	Oscillations	Reducing A	Reducing	Α
8. Stability in g		, in the second	, and the second	
	Tendency to return to straight flight	Spontaneous exit A	Spontaneous exit	Α
9. Behaviour in	n a steeply banked turn	40	Mary than 44 m/s	_
40 Cummatula	Sink rate after two turns	12 m/s to 14 m/s	More than 14 m/s	В
10. Symmetric	Entry	Rocking back less than 45° A	Rocking back less than 45°	Α
	Recovery	Spontaneous in less than 3 s	The second secon	Α
	Dive forward angle on exit	Dive foward 0°to 30°, Keeping course A	The state of the s	Α
	Cascade occurs	No A	. No	Α
	With accelerator			
	Entry	Rocking back less than 45° A		Α
	Recovery	Spontaneous in less than 3 s  Dive foward 0°to 30°, Keeping course  A		A A
	Dive forward angle on exit Cascade occurs	No A		A
11. Exiting dec	ep stall (parachutal stall)	NO A	140	
. 3	Deep stall achieved	Yes	Yes	Α
	Recovery	Spontaneous in less than 3 s	Spontaneous in less than 3 s	Α
	Dive forward angle on exit	Dive forward 0°to 30°		Α
	Change of course	Changing course less than 45° A	0 0	A
12 High angle	Cascade occurs of attack recovery	No A	No	Α
12. Tilgir aligie	Recovery	Spontaneous in less than 3 s	Spontaneous in less than 3 s	Α
	Cascade occurs	No A	The state of the s	Α
13. Recovery f	rom a developed full stall			
	Dive forward angle on exit	Dive forward 0°to 30°		В
	Collapse	No collapse A	•	A
	Cascade occurs (other than collapse) Rocking back	No A Less than 45° A		A A
	Line tension	Most line tight A		A
14. Asymmetri				
	With 50% collapse-Maximum dive forward or roll angle			
	Change of course until re-inflation	180° to 360°, Dive or roll angle 0° to 15° A		Α
	Re-inflation behaviour	Inflates in less than 3 s from start of pilot action	· ·	C
	Total change of course Collapse on the opposite side occurs	Less than 360° A No A		A A
	Twist occurs		No No	A
	Cascade occurs	No A		Α
	With 75% collapse-Maximum dive forward or roll angle			
	Change of course until re-inflation	180° to 360°, Dive or roll angle 15° to 45°		С
	Re-inflation behaviour	Inflates in less than 3 s from start of pilot action	The state of the s	A
	Total change of course Collapse on the opposite side occurs	Less than 360° A No A		A A
	Twist occurs	No A		A
	Cascade occurs	No A		A
	With 50% collapse and accelerator-Maximum dive forward or			
	Change of course until re-inflation	90° to 180°, Dive or roll angle 15° to 45°		Α
	Re-inflation behaviour	Spontaneous re-inflation A		Α
	Total change of course	Less than 360° A		A
	Collapse on the opposite side occurs	No A	No	Α

Twist occurs Cascade occurs Change of course on a accelerator-Maximum dive forward or roll angle 15" to 45" B With 75% colleges and accelerator-Maximum dive forward or roll angle 15" to 45" B Recovery from the colleges on the opposite side occurs Collapse on the opposite side occurs No						
With T5% collapse and accelerator-Maximum dive forward or roll angle (C Re-inflation behaviour Spontaneous re-inflation A C Re-inflation behaviour Spontaneous re-inflation A C Spontaneous re-inflation A C Collapse on the opposite side occurs No No A No		Twist occurs	No			Α
Change of course until re-initation Re-inifiation behaviour Re-inifiation behaviour Re-inifiation behaviour Collapse on the opposite side occurs No No A Tide change of course Re-inifiation Rehaviour Re-inifiation behaviour Re-inifiation Re-inifiati				Α	No	Α
Re-inflation behaviour Total change of course Less than 360° No A No Cacacade occurs No No A N						
Total change of course Collapse on the opposite side occurs No Collapse on the opposite side occurs No No A Twist occurs No No A A No A No A No A No A No A No						
Collapse on the opposite side occurs No A Twist occurs No Cascade occurs No A					· ·	
Twist occurs Cascade occurs No Cascade occurs No Cascade occurs No A Cascade occurs A A No A		· · · · · · · · · · · · · · · · · · ·	Less than 360°			
Cascade occurs  18. Recovery from a developed spin Spin occurs  18. Recovery from a developed spin Cascade occurs  18. Recovery from a developed spin Spin occurs  18. Recovery from a developed spin Spin occurs  19. B-line stall Change of course lease Behaviour before release Remains stable with straight span Recovery Spontaneous in less than 3 s Dive forward of 'to 30'  19. Belg ears  Entry procedure Behaviour during big ears Recovery from occurs  19. Big ears in accelerated flight Recovery spin occurs  21. Big ears in accelerated flight Recovery through pilot action in less than a futher Behaviour during big ears Recovery through pilot action in less than a futher Behaviour during big ears Recovery through pilot action in less than a futher Behaviour during big ears Recovery through pilot action in less than a futher Behaviour during big ears Recovery through pilot action in less than a futher Behaviour during big ears Recovery through pilot action in less than a futher Behaviour during big ears Recovery through pilot action in less than a futher Behaviour during big ears Recovery through pilot action in less than a futher Behaviour during big ears Recovery through pilot action in less than a futher Behaviour during big ears Recovery through pilot action in less than a futher Behaviour during big ears Recovery through pilot action in less than a futher Behaviour during big ears Recovery through pilot action in less than a futher Behaviour during big ears Recovery through pilot action in less than a futher Behaviour during big ears Recovery through pilot action in less than a futher Behaviour during big ears Recovery through pilot action in less than a futher Behaviour during big ears Recovery through pilot action in less than a futher Behaviour during big ears Recovery through pilot action in less than a futher Behaviour during big ears Recovery through pilot action in less than a futher Behaviour during big ears Recovery through pilot action in less than a futher Behaviour during big ears Recovery through pil		Collapse on the opposite side occurs	No	Α	No	
15. Directional control with a maintained asymmetric collapse  180° turn away from the collapsed side possible in 10 s Amount of control range between turn and stall or spin occurs Amount of control range between turn and stall or		Twist occurs	No	Α	No	Α
Able to keep course 180° turn waxy from the collapsed side possible in 10 s Amount of control range between turn and stall or spin 16. Triim speed spin tendency Spin occurs Spin occurs Spin occurs Spin occurs Spin occurs Spin cotation angle after release Spin rotation angle after release Cascade occurs Spin rotation angle after release Remains stable with straight span Recovery Dive forward of to 30° to 30° Spontaneous in less than 3 s Recovery Dive forward drige on exit Behaviour before release Category Spontaneous in 13 s to 5 s Behaviour during big ears Recovery Spontaneous in 3 s to 5 s Behaviour during big ears Recovery Dive forward angle on exit Dive forward of "to 30° Spontaneous in 3 s to 5 s Behaviour during big ears Recovery Spontaneous in 3 s to 5 s Behaviour during big ears Recovery Spontaneous in 3 s to 5 s Behaviour during big ears Recovery Spontaneous in 3 s to 5 s Behaviour during big ears Recovery Spontaneous in 3 s to 5 s Behaviour during big ears Recovery Spontaneous in 3 s to 5 s Behaviour during big ears Recovery Spontaneous in 3 s to 5 s Behaviour during big ears Recovery Spontaneous in 3 s to 5 s Behaviour during big ears Recovery Spontaneous in 3 s to 5 s Behaviour during big ears Recovery Spontaneous in 3 s to 5 s Behaviour during big ears Recovery Spontaneous in 3 s to 5 s Behaviour during big ears Recovery through pilot action in less than a 1 futher Behaviour during big ears Recovery			No	Α	No	Α
180° turn away from the collapsed side possible in 10 s	15. Direction	al control with a maintained asymmetric collapse				
Amount of control range between turn and stall or spin More than 50 % of the symmetric control travel		Able to keep course	Yes	Α	Yes	Α
16. Trim speed spin tendency Spin occurs No Spin occurs No Spin occurs No Spin occurs No Spin occurs Spin occurs Spin occurs No Spin occurs No A Stops spinning in less than 90° A No A N		180° turn away from the collapsed side possible in 10 s	Yes	Α	Yes	Α
Spin occurs   No		Amount of control range between turn and stall or spin	More than 50 % of the symmetric control travel	Α	More than 50 % of the symmetric control travel	Α
17. Low speed Spin tendency Spin cocurs Sp	16. Trim spee	ed spin tendency				
Spin cours   No   A   No   A		Spin occurs	No	Α	No	Α
18. Recovery from a developed spin Spin rotation angle after release Cascade occurs No No A	17. Low spee	ed spin tendency				
18. Recovery from a developed spin Spin rotation angle after release Cascade occurs No No A		Spin occurs	No	Α	No	Α
Spin rotation angle after release Cascade occurs No A No	18. Recovery					
19. B-line stall Change of course before release Remains stable with straight span A Recovery Spontaneous in less than 3 s A Dive forward angle on exit Dive forward 0° to 30° A Dive forward o° to			Stops spinning in less than 90°	Α	Stops spinning in less than 90°	Α
19. B-line stall  Change of course before release						
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Behaviour before release Remains stable with straight span Recovery Spontaneous in less than 3 s A Dive forward angle on exit Dive forward 0° to 30° A No A N			Change of course less than 45°	Α	Change of course less than 45°	Α
Recovery Dive forward angle on exit Cascade occurs No No A Dive forward 0° to 30° A No A N						
Dive forward angle on exit Cascade occurs  No  No  A  Dive forward 0° to 30° A  No  A  Dive forward 0° to 30° A  No  No			ŭ .			
Cascade occurs    No   A   No   A		· · · · · · · · · · · · · · · · · · ·	•			
Entry procedure Behaviour during big ears Unstable flight C Stable flight A Recovery Dive forward angle on exit Dive forward 0° to 30° A Stable flight A Recovery Behaviour during big ears Stable flight A Recovery through pilot action in less than a B Dive forward 0° to 30° A Dive forward 0° t		ŭ				
Entry procedure Behaviour during big ears Unstable flight C Stable flight C Standard technique C Standard technique C Standard technique C Standard technique C Stable flight	20 Big care	Cascade occurs	NO	^	140	^
Behaviour during big ears  Recovery  Spontaneous in 3 s to 5 s  Byortaneous in 3 s to 5 s  Dive forward ongle on exit  Entry procedure  Entry procedure  Standard technique  Standard technique  A Behaviour during big ears  Recovery through pilot action in less than a futher Byortal and the pilot action in less than a full than Byortal and the pilot action in less than a behaviour during big ears  Recovery through pilot action in less than a Byortal Byortal and Byortal Byorta	20. big ears	Entry procedure	Dodicated controls	۸	Dodicated controls	۸
Recovery Dive forward angle on exit Dive forward 0° to 30° A  21. Big ears in accelerated flight Entry procedure Behaviour during big ears Covery Recovery Hrough pilot action in less than a futher Behaviour during big ears Dive forward 0° to 30° A  Stable flight Recovery Recovery Hrough pilot action in less than a Behaviour immediately after releasing the accelerator while  22. Behaviour exiting a steep spiral Tendency to return to straight flight Sink rate when evaluating spiral stability [m/s]  23. Alternative means of directional control 180° turn achievable in 20 s Stall or spin occurs No A Yes A Yes A Yes A No A Yes A No Comments of test pilot  Comments of test pilot  Recovery through pilot action in less than a futher B Dedicated controls A Stable flight A Spontaneous exit A Spontaneous exit A Less than 720°, spontaneous recovery A Less than 720°, spontaneous recovery A No A No A No A On a A  On to available O not available O comments of test pilot						
Dive forward angle on exit  21. Big ears in accelerated flight Entry procedure Behaviour during big ears Stable flight Recovery Recovery through pilot action in less than a Behaviour immediately after releasing the accelerator while  22. Behaviour exiting a steep spiral Tendency to return to straight flight Sink rate when evaluating spiral stability [m/s]  23. Alternative means of directional control 180° turn achievable in 20 s Stall or spin occurs No Procedure and/or configuration described in the user's manual Procedure works as described Procedure suitable for novice pilots Cosmments of test pilot  Dive forward 0° to 30° A Dedicated controls A Stable flight			· · · · · · · · · · · · · · · · · · ·			
21. Big ears in accelerated flight Entry procedure Standard technique A Behaviour during big ears Stable flight Recovery Recovery through pilot action in less than a B Dive forward angle on exit Behaviour immediately after releasing the accelerator while  22. Behaviour exiting a steep spiral Tendency to return to straight flight Sink rate when evaluating spiral stability [m/s]  23. Alternative means of directional control 180° turn achievable in 20 s Stall or spin occurs No A Stable flight A Dedicated controls A Recovery through pilot action in less than a B Recovery through pilot action in less than a further B Dive forward 0° to 30° A Dive forward 0° to 30° A Stable flight A Stable flight A Stable flight A Spontaneous exit A Spontaneous exit A Less than 720°, spontaneous recovery A Less than 720°, spontaneous recovery A 16 m/s  24. Any other flight procedure and/or configuration described in the user's manual Procedure works as described not available O not available O not available O not available O cascade occurs O not available O not available O comments of test pilot						
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Behaviour during big ears Recovery Recovery through pilot action in less than a Dive forward angle on exit Behaviour immediately after releasing the accelerator while  22. Behaviour exiting a steep spiral Tendency to return to straight flight Sink rate when evaluating spiral stability [m/s]  23. Alternative means of directional control 180° turn achievable in 20 s Stall or spin occurs No A Stable flight A Stabl	Z1. Big ears i		Other dead to the laws		De Parte de catala	
Recovery Dive forward name and policy acceptance with a pive forward 0° to 30° and behaviour immediately after releasing the accelerator while shahing a generator with a pehaviour immediately after releasing the accelerator while shahing the pive forward 0° to 30° and bive forward 0° to 30° and a Stable flight and the pive forward 0° to 30° and a Stable flight			•			
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Behaviour immediately after releasing the accelerator while  22. Behaviour exiting a steep spiral  Tendency to return to straight flight Turn angle to recover normal flight Spontaneous exit A Less than 720°, spontaneous recovery A Liess than 720°, spontaneous recovery A Less than 720°, spontaneous recovery A Less than 720°, spontaneous recovery A 16 m/s  23. Alternative means of directional control 180° turn achievable in 20 s Stall or spin occurs No A No A A A Yes A No A A A C4. Any other flight procedure and/or configuration described in the user's manual Procedure works as described Procedure suitable for novice pilots not available Cascade occurs not available O not available						
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Tendency to return to straight flight Turn angle to recover normal flight Sink rate when evaluating spiral stability [m/s]  23. Alternative means of directional control 180° turn achievable in 20 s Stall or spin occurs No A 24. Any other flight procedure and/or configuration described in the user's manual Procedure works as described Procedure suitable for novice pilots not available Cascade occurs  No Comments of test pilot  A Spontaneous exit A Less than 720°, spontaneous recovery A 16 m/s  A Yes A No A No A No A No A O Onot available O not available			Stable flight	Α	Stable flight	Α
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180° turn achievable in 20 s Stall or spin occurs No A No A  24. Any other flight procedure and/or configuration described in the user's manual Procedure works as described not available Procedure suitable for novice pilots not available Cascade occurs not available O Comments of test pilot			14 m/s		16 m/s	
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24. Any other flight procedure and/or configuration described in the user's manual  Procedure works as described not available 0 not available 0 not available 0 not available 0 on the available 0 not available 0 on the available 0 not available 0 on the available 0 not						
Procedure works as described not available 0 n				Α	No	Α
Procedure suitable for novice pilots not available 0 not available 0 not available 0 Cascade occurs not available 0 not available 0 Comments of test pilot	24. Any other					
Cascade occurs not available 0 not available 0 Comments of test pilot		Procedure works as described	not available	0	not available	0
Comments of test pilot		Procedure suitable for novice pilots	not available	0	not available	0
·		Cascade occurs	not available	0	not available	0
Comments speed min15 trim 32 max 38 no	Comments of	f test pilot				
		Comments	speed min15 trim 32 max 38		no	



Air Turquoise
Rue de la Poterlaz 6
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 66
email: info@airturquoise.ch
homepage: www.cen.li