Villeneuve

AIR TURQUOISE SA certified by

## Flight test report: EN

Representative

Manufacturer	Ozone Gliders	Certification number	PG_0469.2011
Address	2, Queens Drive LA46LN . UK	Date of flight test	01. 09. 2011

Place of test

paragliding by air turquoise

Glider model Swift 2 XS Classification С

Trimmer

Fred Pieri

Test pilo	t Fukuoka Seiko		Thurnheer Claude	
Harness	Sup' Air - Altiplume S		Sup' Air - Altiplume S	
Total weight in flight (kg	) 60		75	
1. Inflation/Take-off	A			
Rising behaviour	Smooth, easy and constant rising	Α	Smooth, easy and constant rising	Α
Special take off technique required	No	Α	No	Α
2. Landing	Α			
Special landing technique required	No	Α	No	Α
3. Speed in straight flight	A			
Trim speed more than 30 km/h	Yes	Α	Yes	Α
Speed range using the controls larger than 10 km/h	Yes	Α	Yes	Α
Minimum speed	Less than 25 km/h	Α	Less than 25 km/h	Α
4. Control movement	Α			
Max. weight in flight up to 80 kg				
Symmetric control pressure / travel	Increasing / greater than 55 cm	Α	Increasing / greater than 55 cm	Α
Max. weight in flight 80 kg to 100 kg				
Symmetric control pressure / travel	not available	0	not available	0
Max. weight in flight greater than 100 kg				
Symmetric control pressure / travel	not available	0	not available	0
5. Pitch stability exiting accelerated flight	A			
Dive forward angle on exit	Dive forward less than 30°	Α	Dive forward less than 30°	Α
Collapse occurs	No	Α	No	Α
6. Pitch stability operating controls during accelerated flight	Α			
Collapse occurs	No	Α	No	Α
7. Roll stability and damping	Α			
Oscillations	Reducing	Α	Reducing	Α
8. Stability in gentle spirals	Α			
Tendency to return to straight flight	Spontaneous exit	Α	Spontaneous exit	Α
9. Behaviour in a steeply banked turn	В			
Sink rate after two turns	More than 14 m/s	В	More than 14 m/s	В
10. Symmetric front collapse	В			
Entry	Rocking back less than 45°	Α	Rocking back less than 45°	Α
Recovery	Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α
Dive forward angle on exit / Change of course	Dive forward 30° to 60° / Keeping course	В	Dive forward 0° to 30° / Keeping course	Α
Cascade occurs	No	Α	No	Α
With accelerator				
Entry	Rocking back less than 45°	Α	Rocking back less than 45°	Α
Recovery	Spontaneous in 3 s to 5 s	В	Spontaneous in less than 3 s	Α

	Dive forward angle on exit / Change of course	Dive forward 30° to 60° / Keeping course	В	Dive forward 0° to 30° / Keeping course	Α
Neg stall achieved	Cascade occurs	No	Α	No	Α
Recovery   Dive forward of 'to 30"	11. Exiting deep stall (parachutal stall)	A			
Dive forward of 19 a01"	Deep stall achieved	Yes	Α	Yes	Α
Change of course         Changing course less than 45°         A         Changing course less than 45°         A           Cascade occurs         No         A         No         A           Recovery         Spontaneous in less than 3 s         A         Spontaneous in less than 3 s         A         No         A           13. Recovery from a developed full stall         A         No         A         No         A           13. Recovery from a developed full stall         A         Dive forward 0° to 30°         A         Dive forward 0° to 30°         A         No collapse         A           Cascade occurs (other than collapses)         No         No         A         No         A         No         Class than 45°         A         Less than 45°         A         Less than 45°         A         Less than 45°         A         No         A         No         A         No         Classitian 45°         A         Less than 45°         A         Less than 45°         A         Less than 45°         A         Less than 45°         A         Most lines tight         A         Less than 45°         A         Less than 45°	Recovery	Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α
Cascade occurs         No         A         No         No         A           12. High angle of attack recovery         A         A           Recovery         Spontaneous in less than 3 s         A         Spontaneous in less than 3 s         A         No         No         A           13. Recovery from a developed full stall         A         No         A         No	Dive forward angle on exit	Dive forward 0° to 30°	Α	Dive forward 0° to 30°	Α
Cascade occurs         No         A         No         No         A           12. High angle of attack recovery         A         A           Recovery         Spontaneous in less than 3 s         A         Spontaneous in less than 3 s         A         No         No         A           13. Recovery from a developed full stall         A         No         A         No	Change of course	Changing course less than 45°	Α	Changing course less than 45°	Α
Recovery			Α		Α
Cascade occurs         No         A         No         A           13. Recovery from a developed full stall         A           13. Recovery from a developed full stall         A           Dive forward 0" to 30"         A         Dive forward 0" to 30"         A         No localpase         A           Collapse         No         No         A         No localpase         A           Collapse Actual Line tension         Less than 45"         A         Less than 45"         A           Line tension         Most lines tight         A         Less than 45"         A           Line tension         Less than 50"         A         Less than 50" / Dive or roll angle of course until re-inflation / Maximum dive forward of langle         Less than 90" / Dive or roll angle of to 15" for 45"	12. High angle of attack recovery	A			
13.   Recovery from a developed full stall   Dive forward 0° to 30°   A   Dive forward 0° to 30°   A   Dive forward 0° to 30°   A   Cocilapse   No collapse   A   No collapse   A   No collapse   A   Rocking back   Less than 45°   A   Less than 45°   A   Rocking back   Less than 45°   A   Less than 45°   A   Rocking back   Less than 45°   A   Less than 45°   A   Rocking back   Less than 50°   Dive or roll angle   Rocking of course   Less than 90° / Dive or roll angle   Rocking of course   Less than 90° / Dive or roll angle   Rocking back   Less than 90° / Dive or roll angle   Rocking of course   Less than 360°   A   Less than 360°   A   Rocking back   Less than 360°   A   Less than 360°   A   Rocking back   A   Rocking back   Less than 360°   A   Rocking back	Recovery	Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α
13.   Recovery from a developed full stall   Dive forward 0° to 30°   A   Dive forward 0° to 30°   A   Dive forward 0° to 30°   A   Cascade occurs (other than collapses)   No   No   A   No   No   No   A   No   No	•	·	Α	•	Α
Dive forward angle on exit					
Collapse			Α	Dive forward 0° to 30°	Α
Rocking back	The state of the s				
Rocking back					
Line tension         Most lines tight         A         Most lines tight         A         Most lines tight         A           14. Asymmetric collapse         C					
14. Asymmetric collapse   C   With 50% collapse   C   C   C   C   C   C   C   C   C					
With 50% callapse         Authon 50% callapse         Change of course until re-inflation / Maximum dive forward or langle of 15° to 45°         Less than 90° / Dive or roll angle of 15° to 45°         A Less than 90° / Dive or roll angle of 15° to 45°         A Less than 90° / Dive or roll angle of 15° to 45°         A Spontaneous re-inflation         A Spontaneous re-inflation         A Less than 360°         A Vo         A Vo<		<u> </u>		wost inles ugnt	^
Change of course until re-inflation / Maximum dive forward or roll angle (15° to 45°)         Less than 90° / Dive or roll angle (15° to 45°)         Less than 90° / Dive or roll angle (15° to 45°)         A less than 360° / Dive or roll angle (15° to 45°)         A less than 360°		C			
15" to 45"   15" to 45"   15" to 15"   15"	,	Lace there 00° / Division relligions	۸	Long them 00° / Diverge and Long to 0°	^
Re-inflation behaviour Total change of course Less than 360° No A Less than 360° A No			А		А
Total change of course  Less than 360° A Less than 360° A No	<u> </u>		Α		Α
Collapse on the opposite side occurs No No A		•		•	
Twist occurs         No         A         No         A           Cascade occurs         No         A         No         A           With 75% collpase         Ochange of course until re-inflation / Maximum dive forward or roll angle langle	-				
Cascade occurs     No     A     No     A       With 75% collapse     Change of course until re-inflation / Maximum dive forward or loil angle of langle     90° to 180° / Dive or roll angle 15° to 45°     B     90° to 180° / Dive or roll angle 15° to 45°     B       Re-inflation behaviour     Spontaneous re-inflation     A     Spontaneous re-inflation     A       Total change of course     Less than 360°     A     Less than 360°     A       Collapse on the opposite side occurs     No     A     No     A       Twist occurs     No     A     No     A       Cascade occurs     No     A     No     A       With 50% collapse and accelerator     Total change of course until re-inflation / Maximum dive forward or langle 15° to 45°     B     Less than 90° / Dive or roll angle 15° to 45°     A       Re-inflation behaviour     Spontaneous re-inflation     A     Spontaneous re-inflation     A       Total change of course     Less than 360°     A     No     A       Collapse on the opposite side occurs     No     A     No     A       With 75% collapse and accelerator     No     A     No     A       Change of course until re-inflation / Maximum dive forward or roll angle 15° to 90°     Total change of course until re-inflation / Maximum dive forward or roll angle 15° to 90°     A     No					
With 75% collapse         With 75% collapse         B         90° to 180° / Dive or roll angle 15° to 45° to 45° to 45° to 45°         B           Re-inflation behaviour         Spontaneous re-inflation         A         Spontaneous re-inflation         A           Total change of course         Less than 360°         A         Less than 360°         A           Collapse on the opposite side occurs         No         A         No         A           Twist occurs         No         A         No         A           Cascade occurs         No         A         No         A           With 50% collapse and accelerator         No         A         No         A           Change of course until re-inflation / Maximum dive forward or roll angle angle 15° to 45°         B         Less than 90° / Dive or roll angle 15° to 45°         B           Re-inflation behaviour         Spontaneous re-inflation         A         Spontaneous re-inflation         A           Total change of course         Less than 360°         A         Less than 360°         A           Collapse on the opposite side occurs         No         A         No         A           Change of course until re-inflation / Maximum dive forward or roll angle 15° to 45°         No         A         No         A         No <t< td=""><td></td><td></td><td></td><td></td><td></td></t<>					
Change of course until re-inflation / Maximum dive forward or roll angle 15° to 45° to 45°.       B to 45° to 45° to 45°.       B to 45° to 45°.       B to 45°. <td></td> <td>NO</td> <td>А</td> <td>NO</td> <td>A</td>		NO	А	NO	A
roll angle         15" to 45"         to 45°           Re-inflation behaviour         Spontaneous re-inflation         A Spontaneous re-inflation         A Spontaneous re-inflation           7 total change of course         Less than 360°         A Less than 360°         A Collapse on the opposite side occurs         No         A No         A No         A Twist occurs         No         A N	·	00% to 400% / Division and I ample	_	00% to 400% / Diversity and 45%	_
Total change of course  Less than 360° A Less than 360° A No			В		В
Collapse on the opposite side occurs  No No A No A No A No A No A No A Cascade occurs No No A No A No A No A No A No A Cascade occurs No No A	Re-inflation behaviour	•	Α	Spontaneous re-inflation	Α
Twist occurs  No  No  A  No  No  A  No  No	Total change of course	Less than 360°	Α	Less than 360°	Α
Cascade occurs  With 50% collapse and accelerator  Change of course until re-inflation / Maximum dive forward or roll angle of course until re-inflation / Maximum dive forward or roll angle 15° to 45°  Re-inflation behaviour  Total change of course  Less than 360°  A Less than 360°  A Less than 360°  A No  Collapse on the opposite side occurs  No  No  A No  Cascade occurs  No  No  A No  A No  A  With 75% collapse and accelerator  Change of course until re-inflation / Maximum dive forward or roll angle for to 180° / Dive or roll angle for to 45°  Re-inflation behaviour  Change of course until re-inflation / Maximum dive forward or roll angle for to 90° to 180° / Dive or roll angle for to 45°  Re-inflation behaviour  Change of course until re-inflation / Maximum dive forward or roll angle for to 90° to 180° / Dive or roll angle for to 45°  Re-inflation behaviour  Change of course until re-inflation / Maximum dive forward or roll angle for to 90° to 180° / Dive or roll angle for to 45°  Re-inflation behaviour  A Spontaneous re-inflation  A Spontaneous re-inflation  A Collapse on the opposite side occurs  No  A Less than 360°  A Spontaneous re-inflation  A No  A Spontaneous re-inflation  A Spontaneous re-inflation  A No  A No  A No  A No  A No  A No  A	Collapse on the opposite side occurs	No	Α	No	Α
With 50% collapse and accelerator         Change of course until re-inflation / Maximum dive forward or roll angle       90° to 180° / Dive or roll angle 15° to 45°       B. Less than 90° / Dive or roll angle 15° to 45°       A         Re-inflation behaviour       Spontaneous re-inflation       A       Spontaneous re-inflation       A         Total change of course       Less than 360°       A       Less than 360°       A         Collapse on the opposite side occurs       No       A       No       A         Twist occurs       No       A       No       A         Cascade occurs       No       A       No       A         With 75% collapse and accelerator       Change of course until re-inflation / Maximum dive forward or roll angle of course until re-inflation / Maximum dive forward or roll angle for to 90°       Do to 180° / Dive or roll angle for to 45°       B         Re-inflation behaviour       Spontaneous re-inflation       A       Spontaneous re-inflation       A         <	Twist occurs	No	Α	No	Α
Change of course until re-inflation / Maximum dive forward or roll angle 15° to 45° 15°	Cascade occurs	No	Α	No	Α
roll angle 15° to 45°	With 50% collapse and accelerator				
Total change of course  Less than 360°  A Less than 360°  A Collapse on the opposite side occurs  No  No  A No  A No  Cascade occurs  No  No  A No  A No  Cascade occurs  No  With 75% collapse and accelerator  Change of course until re-inflation / Maximum dive forward or roll angle for to 90° to 180° / Dive or roll angle  Re-inflation behaviour  Spontaneous re-inflation  A Spontaneous re-inflation  A Spontaneous re-inflation  A Collapse on the opposite side occurs  No  A No  A No  A No  A No  A Spontaneous re-inflation  A Collapse on the opposite side occurs  No  A	•	ŭ .	В		Α
Collapse on the opposite side occurs  No  No  A  No  A  No  A  No  A  Cascade occurs  No  No  A  No  A  No  A  No  A  No  A  With 75% collapse and accelerator  Change of course until re-inflation / Maximum dive forward or roll angle  Re-inflation behaviour  Spontaneous re-inflation  A  Collapse on the opposite side occurs  No  A  Collapse on the opposite side occurs  No  A  Collapse on the opposite side occurs  No  A  Total change of course  Collapse on the opposite side occurs  No  A  No  A  No  A  Twist occurs  No  A  No  A  No  A  Total change of course  Collapse on the opposite side occurs  No  A  Total change of course  Collapse on the opposite side occurs  No  A  No  A  No  A  Twist occurs  No  A  No  A  No  A  No  A  A  No  A  A  A  No  A  A  A  A  A  No  A  A  A  No  A  A  A  No  A  A  A  A  No  A  A  A  A  No  A  A  A  A  No  A  A  A  A  A  A  A  A  A  A  A  A  A	Re-inflation behaviour	Spontaneous re-inflation	Α	Spontaneous re-inflation	Α
Twist occurs  No A No	Total change of course	Less than 360°	Α	Less than 360°	Α
Twist occurs  No A No	Collapse on the opposite side occurs	No	Α	No	Α
With 75% collapse and accelerator  Change of course until re-inflation / Maximum dive forward or roll angle angle  Re-inflation behaviour  Total change of course  Collapse on the opposite side occurs  No  No  A  Cascade occurs  No  A  Cascade occurs  A  15. Directional control with a maintained asymmetric collapse  Able to keep course  Able to keep course  Yes  A  Amount of control range between turn and stall or spin  You to 180° / Dive or roll angle 15° B to 45°  Spontaneous re-inflation  A  Spontaneous re-inflation  A  A No  A Less than 360°  A Less than 360°  A No  A No  A No  A No  A No  A  Yes  A  Yes  A  More than 50 % of the symmetric  A  More than 50 % of the symmetric  A  More than 50 % of the symmetric  A		No	Α	No	Α
Change of course until re-inflation / Maximum dive forward or roll angle follows to 180° / Dive or roll angle follows to 90° to 180° / Dive or roll angle follows to 45° to 45°  Re-inflation behaviour  Total change of course  Less than 360°  No  No  A  No  A  No  Cascade occurs  No  No  A  Collapse  A  Collapse  A  Conscided occurs  No  A  Conscided occurs  No  A  Conscided occurs  No  A  Collapse  A  Collapse  A  Collapse  A  Collapse  No  A  No  A  No  A  No  A  No  A  No  A  A  Cascade occurs  A  Collapse  A  Collapse  A  Collapse  A  No  A  A  A  A  A  A  A  A  A  A  A  A  A	Cascade occurs	No	Α	No	Α
Change of course until re-inflation / Maximum dive forward or roll angle follows to 180° / Dive or roll angle follows to 90° to 180° / Dive or roll angle follows to 45° to 45°  Re-inflation behaviour  Total change of course  Less than 360°  No  No  A  No  A  No  Cascade occurs  No  No  A  Collapse  A  Collapse  A  Conscided occurs  No  A  Conscided occurs  No  A  Conscided occurs  No  A  Collapse  A  Collapse  A  Collapse  A  Collapse  No  A  No  A  No  A  No  A  No  A  No  A  A  Cascade occurs  A  Collapse  A  Collapse  A  Collapse  A  No  A  A  A  A  A  A  A  A  A  A  A  A  A	With 75% collapse and accelerator				
Re-inflation behaviour  Spontaneous re-inflation A Spontaneous re-inflation A Less than 360° A Less than 360° A Less than 360° A Collapse on the opposite side occurs No A			С		В
Total change of course  Less than 360°  A Less than 360°  A No  A No  A No  A No  Cascade occurs  No  No  A	-		Δ		Δ
Collapse on the opposite side occurs  No A No A No A No A No A No A Cascade occurs No A No A No A No A  15. Directional control with a maintained asymmetric collapse A A No A  A No A No A No A No A No A N		•		•	
Twist occurs  No A No	-				
Cascade occurs  No A No					
A Superctional control with a maintained asymmetric collapse  Able to keep course  Able to keep course  Yes  A Yes  A Yes  A Yes  A More than 50 % of the symmetric  A More than 50 % of the symmetric  A					
collapse  Able to keep course  Yes  A Yes  A 180° turn away from the collapsed side possible in 10 s  Amount of control range between turn and stall or spin  More than 50 % of the  A More than 50 % of the symmetric  A			А	INU	А
Able to keep course Yes A Yes A 180° turn away from the collapsed side possible in 10 s Yes A Yes A Yes A Yes A More than 50 % of the symmetric A		^			
180° turn away from the collapsed side possible in 10 s  Yes  A Yes  A More than 50 % of the symmetric A	Able to keep course	Yes	Α	Yes	Α
Amount of control range between turn and stall or spin  More than 50 % of the  A More than 50 % of the symmetric A		Yes	Α	Yes	Α
		More than 50 % of the	Α	More than 50 % of the symmetric	Α
		symmetric control travel		control travel	

16. Trim speed spin tendency	A			
Spin occurs	No	Α	No	Α
17. Low speed spin tendency	A			
Spin occurs	No	Α	No	Α
18. Recovery from a developed spin	Α			
Spin rotation angle after release	Stops spinning in less than 90°	Α	Stops spinning in less than 90°	Α
Cascade occurs	No	Α	No	Α
19. B-line stall	A			
Change of course before release	Changing course less than 45°	Α	Changing course less than 45°	Α
Behaviour before release	Remains stable with straight span	Α	Remains stable with straight span	Α
Recovery	Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α
Dive forward angle on exit	Dive forward 0° to 30°	Α	Dive forward 0° to 30°	Α
Cascade occurs	No	Α	No	Α
20. Big ears	Α			
Entry procedure	Dedicated controls	Α	Dedicated controls	Α
Behaviour during big ears	Stable flight	Α	Stable flight	Α
Recovery	Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α
Dive forward angle on exit	Dive forward 0° to 30°	Α	Dive forward 0° to 30°	Α
21. Big ears in accelerated flight	A			
Entry procedure	Dedicated controls	Α	Dedicated controls	Α
Behaviour during big ears	Stable flight	Α	Stable flight	Α
Recovery	Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α
Dive forward angle on exit	Dive forward 0° to 30°	Α	Dive forward 0° to 30°	Α
Behaviour immediately after releasing the accelerator while maintaining big ears	Stable flight	Α	Stable flight	Α
22. Behaviour exiting a steep spiral	Α			
Tendency to return to straight flight	Spontaneous exit	Α	Spontaneous exit	Α
Turn angle to recover normal flight	Less than 720°, spontaneous recovery	Α	Less than 720°, spontaneous recovery	Α
Sink rate when evaluating spiral stability [m/s]	18		18	
23. Alternative means of directional control	A			
180° turn achievable in 20 s	Yes	Α	Yes	Α
Stall or spin occurs	No	Α	No	Α
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				