## AIR TURQUOISE SA | PARA-TEST.COM

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test laboratory for paragliders, paraglider harnesses and paraglider reserve parachutes

Manufacturer



Certification number PG\_2289.2023

## Flight test report: EN 926-2:2013+A1:2021\*

**Mac Para Technology** 

Manadataroi	wac Para Technolog	ıy	Certification num	DCI	FG_2209.2023	
Address Televizní 2615			Flight test		23.11.2023	
	756 61 Roznov pod R	adhostem				
	Czech Republic					
Glider model	VERVE 30		Classification		С	
Serial number	4130-2527		Representative		None	
Trimmer	no		Place of test		Villeneuve	
Folding lines used	yes		1 1400 01 1001		VIIIOTIOUVO	
r olding lines asea	yes					
Test pilot		Alexandre Jofr	resa		Anselm Rauh	
Harness		Advance Thun	AG Success 4 M		Niviuk Makan L	
Harness to risers di	stance [cm]	43			41	
Distance between ri	sers [cm]	48			48	
Total weight in fligh		115			129	
Total Weight in high	, [va]	113			129	
1. Inflation/Take-off		C				
Rising behaviour		Overshoots, shall be s collapse	slowed down to avoid a front	С	Overshoots, shall be slowed down to avoid a front collapse	С
Special take off technique	required	No		Α	No	Α
	'					
2. Landing		Α				
Special landing technique	required	No		Α	No	Α
O Our and the advantagle of fill sub-		_				
3. Speed in straight flight		В				
Trim speed more than 30 k	km/h	Yes		Α	not available	0
Speed range using the controls larger than 10 km/h		Yes		Α	not available	0
-pgggg						
Minimum speed		Less than 25 km/h		Α	25 km/h to 30 km/h	В
4. Control movement		A				
Max. weight in flight up t	o 80 ka					
Symmetric control pressure / travel		not available 0		0	not available	0
- <b>,</b>	-,					
Max. weight in flight 80 k	g to 100 kg					
Symmetric control pressure / travel		not available		0	not available	0
May walahtia filahti	stor than 100 km					
Max. weight in flight grea	=	Leanner's a formation the	05		Languagian Constanting OF an	
Symmetric control pressure	e / travel	Increasing / greater th	an 65 cm	Α	Increasing / greater than 65 cm	Α
5. Pitch stability exiting a	accelerated flight	Α				
Dive forward angle on exit		Dive forward less than	1 30°	Α	Dive forward less than 30°	Α
ŭ						
Collapse occurs		No		Α	No	Α
6 Ditch stability angulation	ag controls during	^				
<ol><li>Pitch stability operating accelerated flight</li></ol>	ig controls auring	Α				
Collapse occurs		No		Α	No	Α
7. Roll stability and damping		Α				
Oscillations		Reducing		Α	Reducing	Α
8. Stability in gentle spira	als	A				
Tendency to return to strai		Spontaneous exit		Α	Spontaneous exit	Α
rondondy to roturn to strai	an man	-1			•	
						_

Tendemory to return to straight flight   Software services of the service of the services of	9. Behaviour exiting a fully developed spiral dive	В			
10. Symmetric front collapse	Initial response of glider (first 180°)	No immediate reaction	В	No immediate reaction	В
No. Symmetric front collapse   C	Tendency to return to straight flight		Α		Α
Approximately 30 % chord         Activity         Rodeing basic less than 40°         4         Rocomptack less than 40°         A           Recovery         Sportameous in less than 3 s         A         Sportameous in less than 3 s         A         Sportameous in less than 3 s         A           Dive forward anglis on exit Change of course         Pow forward of 10 30° / Resping course         A         No         A           Cascade occurs         Fooding basic less than 40°         A         No         A           Folding lines used         Fooding basic less than 40°         A         Rocoregy basic less than 40°         A           Recovery         Sportameous in less than 3 s         A         Rocoregy basic less than 40°         A           Polding lines used         Yes         A         No         A           Cascade occurs         Yes         A         No         A           Folding lines used         Yes         A         No         A           Recovery         Sportameous in less than 40°         A         Rocoreg back less than 40°         A           Recovery         Sportameous in less than 3 s         A         Sportameous in less than 3 s         A           Cascade occurs         No         No         No         No         No <td>Turn angle to recover normal flight</td> <td>720° to 1 080°, spontaneous recovery</td> <td>В</td> <td>720° to 1 080°, spontaneous recovery</td> <td>В</td>	Turn angle to recover normal flight	720° to 1 080°, spontaneous recovery	В	720° to 1 080°, spontaneous recovery	В
Sportaneous in less than 3 s	•	С			
Dive forward angle on exit Change of course    No   No   No   No   No   No   No   N	Entry	Rocking back less than 45°	Α	Rocking back less than 45°	Α
Cascade occurs	Recovery	Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α
Folding lines used   Yes   C   Yes   C   Rocking back less than 45°   A   A   Rocking back less than 45°   A   A   Rocking back less than 45°   A   A   A   Rocking back less than 45°   A   A   Rocking back less than 45°   A   A   Rocking back less than 45°   A	Dive forward angle on exit Change of course	Dive forward 0° to 30° / Keeping course	Α	Dive forward 0° to 30° / Keeping course	Α
At least 50% chord  Entry Rocking back less than 45° A Rocking back less than 45° A Sporttaneous in less than 3 a A Sporttaneous in less than 3 a A Dive forward on 10 30° / Keeping course keep Khan 3 a A Dive forward on 10 30° / Keeping course keep Khan 3 a A Dive forward on 10 30° / Keeping course keep Khan 3 a A Dive forward on 10 30° / Keeping course keep Khan 3 a A Dive forward on 10 30° / Keeping course keep Khan 3 a A Dive forward on 10 30° / Keeping course keep Khan 3 a A Dive forward on 10 30° / Keeping course keep Khan 3 a A Dive forward on 10 30° / Keeping course keep Khan 4 a A Dive forward on 10 30° / Keeping course keep Khan 4 a A Dive forward on 10 30° / Keeping course keep Khan 4 a A Dive forward on 10 30° / Keeping course keep Khan 4 a A Dive forward on 10 30° / Keeping course keep Khan 4 a A Dive forward on 10 30° / Keeping course keep Khan 4 a A Dive forward on 10 30° / Keeping course keep Khan 4 a A Dive forward on 10 30° / Keeping course keep Khan 4 a A Dive for	Cascade occurs	No	Α	No	Α
Entry         Rocking back less than 45"         A         Rocking back less than 45"         A           Recovery         Spontaneous in less than 3 s         A         Spontaneous in less than 3 s         A           Dive forward angle on exit / Change of course         Dive forward 0" to 30" / Keeping course         A         Dive forward 0" to 30" / Keeping course         A           Folding lines used         Yes         C         Yes         A           With accelerator         Entry         Rocking back less than 45"         A         Rocking back less than 45"         A           Recovery         Spontaneous in less than 3 s         A         Rocking back less than 45"         A           Dive forward angle on exit / Change of course         Dive forward 0" to 30" / Keeping course         A         No         A           Cascade occurs         No         A         No         A         No         A           Cascade occurs         No         A         Yes         A         Yes         A           Cascade occurs         A         Yes         A         Yes         A         A           Recovery         Point femous that set than 3 s         A         Yes         A         A           Change of course         Cascade occurs	Folding lines used	Yes	С	Yes	С
Dive forward angle on exit / Change of course Dive forward 0° to 30° / Keeping course A Dive forward 0° to 30° / Keeping course A Dive forward 0° to 30° / Keeping course A Dive forward 0° to 30° / Keeping course C Variance C Varian		Rocking back less than 45°	Α	Rocking back less than 45°	Α
Cascade occurs  No	Recovery	Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α
Folding lines used	Dive forward angle on exit / Change of course	Dive forward 0° to 30° / Keeping course	Α	Dive forward 0° to 30° / Keeping course	Α
With accelerator  Entry Rocking back less than 45° A Rocking back less than 45° A Spontaneous in less than 3 s A Spontaneous in less than 3 s A Dive forward angle on exit / Change of course Dive forward 0° to 30° / Keeping course A Dive forward 30° to 80° / Keeping course B Dive forward 10° to 30° / Keeping course A Dive forward 30° to 80° / Keeping course B Dive forward 10° to 30° / Keeping course B Dive forward 30° to 80° / Keeping course B Dive for	Cascade occurs	No	Α	No	Α
Entry Recovery Recovery Spontaneous in less than 45° A Rocking back less than 45° A Rocking back less than 45° A Recovery Spontaneous in less than 3 s A Spontaneous in less than 3 s A Dive forward angle on exit / Change of course Dive forward 0° to 30° / Keeping course A Dive forward 30° to 60° / Keeping course B A Rocking lines used No A No A No A No A Recovery Pres A Pres A Pres A Pres A Pres A Recovery Dive forward 10° to 30° A No A No A No A Recovery A R	Folding lines used	Yes	С	Yes	С
Recovery Spontaneous in less than 3 s A Spontaneous in less than 3 s A Dive forward 30° to 60° / Keeping course B Cascade occurs No A No	With accelerator				
Dive forward angle on exit / Change of course  Dive forward 0° to 30° / Keeping course  A Dive forward 30° to 60° / Keeping course  B Cascade occurs  No A No A No A  Folding lines used  Yes C Yes C  11. Exiting deep stall (parachutal stall) Deep stall achieved  Yes A Yes A Yes A  Recovery  Spontaneous in less than 3 s A Spontaneous in less than 3 s A Dive forward 0° to 30° A  Dive forward angle on exit  Dive forward 0° to 30° A Dive forward 0° to 30° A Dive forward 0° to 30° A  Change of course  Changing course less than 45° A No A  12. High angle of attack recovery Recovery  No A Spontaneous in less than 3 s A Spontaneous in less than 3 s A Spontaneous in less than 3 s A No A  13. Recovery Spontaneous in less than 3 s A No A No A  13. Recovery from a developed full stall Dive forward 30° to 60° B Dive forward 30° to 60° B Dive forward 30° to 60° A B Collapse  No collapse  No collapse	Entry	Rocking back less than 45°	Α	Rocking back less than 45°	Α
Cascade occurs  No  No  No  A  No  No  A  No  No  A  No  Folding lines used  Yes  C  Yes  C  Yes  C  T  11. Exiting deep stall (parachutal stall) Deep stall achieved  Yes  A  Recovery  Spontaneous in less than 3 s  A  Dive forward angle on exit  Changing course less than 45°  A  Cascade occurs  No  No  A  T  12. High angle of attack recovery Recovery  Spontaneous in less than 3 s  A  Spontaneous in less than 45°  A  No  A  No  A  T  13. Recovery from a developed full stall Dive forward 30° to 60°  B  Dive forward angle on exit  No collapse  No collapse  A  No collapse  A  No collapse  A  No collapse	Recovery	Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α
Folding lines used  Yes  C Yes  C Yes  C  11. Exiting deep stall (parachutal stall) Deep stall achieved  Yes  A Yes  A Yes  A Spontaneous in less than 3 s  A Spontaneous in less than 3 s  A Spontaneous in less than 3 s  A Dive forward angle on exit  Dive forward 0° to 30°  C Changing course  C Changing course less than 45°  A Dive forward 0° to 30°  A Dive forward 0° to 30°  A Changing course less than 45°  A Changing course less than 45°  A No  12. High angle of attack recovery Recovery  A Spontaneous in less than 3 s  A No  Cascade occurs  No  No  A	Dive forward angle on exit / Change of course	Dive forward 0° to 30° / Keeping course	Α	Dive forward 30° to 60° / Keeping course	В
11. Exiting deep stall (parachutal stall) Deep stall achieved Yes A Yes A Recovery Spontaneous in less than 3 s A Dive forward angle on exit Dive forward 0° to 30° A Change of course Changing course less than 45° A Cascade occurs No A Cascade occurs B Cascade occurs A Cascade occurs B Cascade occurs A Cascade occurs B Cascade occurs A Cascade occurs B Collapse B Collapse A Co	Cascade occurs	No	Α	No	Α
Deep stall achieved Yes A Yes A Yes A Recovery Spontaneous in less than 3 s A Spontaneous in less than 3 s A Dive forward on to 30° A Dive forward on to 30° A Dive forward on to 30° A Change of course Research A Cascade occurs No A No	Folding lines used	Yes	С	Yes	С
Recovery Spontaneous in less than 3 s A Spontaneous in less than 3 s A  Dive forward angle on exit Dive forward 0° to 30° A  Change of course Changing course less than 45° A Changing course less than 45° A  Cascade occurs No A No A No A  12. High angle of attack recovery A Spontaneous in less than 3 s A  Cascade occurs No A No A Spontaneous in less than 3 s A  Cascade occurs No A No A No A  13. Recovery from a developed full stall Dive forward 30° to 60° B  Dive forward angle on exit No collapse A No collapse A	- · · · · · · · · · · · · · · · · · · ·		٨	Vez	<b>A</b>
Dive forward angle on exit  Dive forward 0° to 30°  A Dive forward 0° to 30°  A Change of course  Changing course less than 45°  A No  A No  A Spontaneous in less than 3 s  A Spontaneous in less than 3 s  A No  A No  A No  Cascade occurs  No  No  No  A No  B No  Collapse					
Change of course  Changing course less than 45° A Cascade occurs  No A  12. High angle of attack recovery Recovery  No Spontaneous in less than 3 s A Cascade occurs  No A Spontaneous in less than 3 s A Cascade occurs  No A  13. Recovery from a developed full stall Dive forward angle on exit  Dive forward 30° to 60° B Collapse  No collapse  A Changing course less than 45° A No Ch					
Cascade occurs  No A  12. High angle of attack recovery Recovery  No Spontaneous in less than 3 s A  Cascade occurs  No No A  No A  No A  No A  Dive forward 30° to 60° B  Collapse  No collapse  A  No collapse  A  No collapse  A  No collapse					
12. High angle of attack recovery Recovery  Spontaneous in less than 3 s  A Spontaneous in less than 3 s  A Spontaneous in less than 3 s  A Cascade occurs  No  No  A  No  A  No  B  Dive forward angle on exit  Dive forward 30° to 60°  B  No collapse  A No collapse  A No collapse	Change of course				
Recovery Spontaneous in less than 3 s A Spontaneous in less than 3 s A  Cascade occurs No A No A  13. Recovery from a developed full stall B  Dive forward angle on exit Dive forward 30° to 60° B  Collapse A No collapse A	Cascade occurs	No	Α	No	Α
13. Recovery from a developed full stall Dive forward angle on exit  Dive forward 30° to 60°  B Dive forward 30° to 60°  B Dive forward 30° to 60°  A No collapse  A No collapse			Α	Spontaneous in less than 3 s	Α
Dive forward angle on exit  Dive forward 30° to 60°  B Dive forward 30° to 60°  B Collapse  A No collapse  A	Cascade occurs	No	Α	No	Α
			В	Dive forward 30° to 60°	В
Cascade occurs (other than collapses)  No  A  No  A	Collapse	No collapse	Α	No collapse	Α
	Cascade occurs (other than collapses)	No	Α	No	Α

Rocking back	Less than 45°	Α	Less than 45°	Α
Line tension	Most lines tight	Α	Most lines tight	Α
14. Asymmetric collapse Small asymmetric collapse	С			
Change of course until re-inflation / Maximum dive forward or roll angle	Less than 90° / Dive or roll angle 0° to 15°	Α	Less than 90° / Dive or roll angle 15° to 45°	Α
Re-inflation behaviour	Spontaneous re-inflation	Α	Spontaneous re-inflation	Α
Total change of course	Less than 360°	Α	Less than 360°	Α
Collapse on the opposite side occurs	No (or only a small number of collapsed cells with a spontaneous reinflation)	Α	No (or only a small number of collapsed cells with a spontaneous reinflation)	Α
Twist occurs	No	Α	No	Α
Cascade occurs	No	Α	No	Α
Folding lines used	Yes	С	Yes	С
Large asymmetric collapse				
Change of course until re-inflation / Maximum dive forward or roll angle	90° to 180° / Dive or roll angle 15° to 45°	В	90° to 180° / Dive or roll angle 15° to 45°	В
Re-inflation behaviour	Spontaneous re-inflation	Α	Spontaneous re-inflation	Α
Total change of course	Less than 360°	Α	Less than 360°	Α
Collapse on the opposite side occurs	No (or only a small number of collapsed cells with a spontaneous reinflation)	Α	No (or only a small number of collapsed cells with a spontaneous reinflation)	Α
Twist occurs	No	Α	No	Α
Cascade occurs	No	Α	No	Α
Folding lines used	Yes	С	Yes	С
Small asymmetric collapse with fully activated accelerator				
Change of course until re-inflation / Maximum dive forward or roll angle	Less than 90° / Dive or roll angle 15° to 45°	Α	Less than 90° / Dive or roll angle 15° to 45°	Α
Re-inflation behaviour	Spontaneous re-inflation	Α	Spontaneous re-inflation	Α
Total change of course	Less than 360°	Α	Less than 360°	Α
Collapse on the opposite side occurs	No (or only a small number of collapsed cells with a spontaneous reinflation)	Α	No (or only a small number of collapsed cells with a spontaneous reinflation)	Α
Twist occurs	No	Α	No	Α
Cascade occurs	No	Α	No	Α
Folding lines used	Yes	С	Yes	С
Large asymmetric collapse with fully activated accelerator				
Change of course until re-inflation / Maximum dive forward or roll angle	90° to 180° / Dive or roll angle 15° to 45°	В	90° to 180° / Dive or roll angle 45° to 60°	С
Re-inflation behaviour	Spontaneous re-inflation	Α	Spontaneous re-inflation	Α
Total change of course	Less than 360°	Α	Less than 360°	Α
Collapse on the opposite side occurs	No (or only a small number of collapsed cells with a spontaneous reinflation)	Α	No (or only a small number of collapsed cells with a spontaneous reinflation)	Α
Twist occurs	No	Α	No	Α
Cascade occurs	No	Α	No	Α

Folding lines used	Yes	С	Yes	С
15. Directional control with a maintained asymmetric collapse	A			
Able to keep course	Yes	Α	Yes	Α
180° turn away from the collapsed side possible in 10 s	Yes	Α	Yes	Α
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
16. Trim speed spin tendency	Α			
Spin occurs	No	Α	No	Α
17. Low speed spin tendency Spin occurs	A No	٨	No	Α
Spiri occurs		^	No	
18. Recovery from a developed spin	В			_
Spin rotation angle after release	Stops spinning in 90° to 180°	В	Stops spinning in 90° to 180°	В
Cascade occurs	No	Α	No	Α
19. B-line stall	0			
Change of course before release	not available	0	not available	0
Behaviour before release	not available	0	not available	0
Recovery	not available	0	not available	0
Dive forward angle on exit	not available	0	not available	0
Cascade occurs	not available	0	not available	0
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. Alternative means of directional control	A			
180° turn achievable in 20 s	Yes	Α	Yes	Α
Stall or spin occurs	No	Α	No	Α
23. Any other flight procedure and/or configuration described in the user's manual	A			
Procedure works as described	Yes	Α	Yes	Α
Procedure suitable for novice pilots	Yes	Α	Yes	Α
Cascade occurs	No	А	No	Α