

Air Turquoise SA Rte du Pré-au-Comte 8 | CH-1844 Villeneuve tel. +41 21 965 65 65 | mobile +41 79 202 52 30 info@para-test.com

Flight test report: EN 926-2:2013

Flight test rep	OIC. EN 020 2.2010				
Manufacturer	MCC Aviation SA	Certification number		PG_0940.2015	
Address	La Tuilière 1091 Grandvaux Switzerland	Date of flight test		27. 03. 2015	
Glider model	Beluga 3 38 pro	Classification		В	
Serial number	31-1430	Representative		None	
Trimmer	yes: closed	Place of test		Villeneuve	
Hilline	yes. closed	Flace of lest		Villerieuve	
Test pilot		Thurnheer Claude		Zoller Alain	
Harness		Advance - Bi pro 2		Advance - Bi pro 2	
Harness to risers di	stance (cm)	44		44	
	, ,				
Distance between ri	` '	55		55	
Total weight in fligh	t (kg)	120		200	
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		A			
Special landing technique	required	No	Α	No	Α
3. Speed in straight fligh	t	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 t	to 80 kg				
Symmetric control pressur	e / travel	not available	0	not available	0
Max. weight in flight 80 k	ra to 100 ka				
Symmetric control pressur	-	not available	0	not available	0
Max. weight in flight grea	<u>=</u>				
Symmetric control pressur		Increasing / greater than 65 cm	Α	Increasing / greater than 65 cm	Α
5. Pitch stability exiting a	- The state of the	0			
Dive forward angle on exit					_
		not available	0	not available	0
Collapse occurs		not available	0	not available	0
•	ng controls during accelerated				
6. Pitch stability operatir		not available			
6. Pitch stability operating	ng controls during accelerated	not available 0	0	not available	0
6. Pitch stability operating flight Collapse occurs 7. Roll stability and dam Oscillations	ng controls during accelerated	not available 0 not available	0	not available	0
6. Pitch stability operating flight Collapse occurs 7. Roll stability and dam Oscillations 8. Stability in gentle spirit	ng controls during accelerated ping	not available not available A	0	not available	0
6. Pitch stability operating flight Collapse occurs 7. Roll stability and damy Oscillations 8. Stability in gentle spirated and the collapse occurs.	ng controls during accelerated ping als ight flight	not available o not available A Reducing A Spontaneous exit	0	not available	0
6. Pitch stability operating flight Collapse occurs 7. Roll stability and damy Oscillations 8. Stability in gentle spir. Tendency to return to strain 9. Behaviour exiting a further flight.	ng controls during accelerated ping als ght flight Ily developed spiral dive	not available 0 not available A Reducing A Spontaneous exit A	0 0 A	not available not available Reducing Spontaneous exit	0 0 A
6. Pitch stability operating flight Collapse occurs 7. Roll stability and dam Oscillations 8. Stability in gentle spir. Tendency to return to strain 9. Behaviour exiting a furth linitial response of glider (finds)	ping als ight flight lly developed spiral dive irst 180°)	not available not available A Reducing A Spontaneous exit A Immediate reduction of rate of turn	0 0 A	not available not available Reducing Spontaneous exit Immediate reduction of rate of turn	0 0 A
6. Pitch stability operating flight Collapse occurs 7. Roll stability and damy Oscillations 8. Stability in gentle spir. Tendency to return to strain 9. Behaviour exiting a further flight.	ping als ight flight lly developed spiral dive irst 180°)	not available 0 not available A Reducing A Spontaneous exit A Immediate reduction of rate of	0 0 A A	not available not available Reducing Spontaneous exit	0 0 A A
6. Pitch stability operating flight Collapse occurs 7. Roll stability and dam Oscillations 8. Stability in gentle spir. Tendency to return to strain 9. Behaviour exiting a furth limital response of glider (fitting)	ping als ight flight lly developed spiral dive irst 180°)	not available not available A Reducing A Spontaneous exit A Immediate reduction of rate of turn Spontaneous exit (g force decreasing, rate of turn	0 0 A A	not available not available Reducing Spontaneous exit Immediate reduction of rate of turn Spontaneous exit (g force	0 0 A A

10. Symmetric front collapse	A			
Approximately 30 % chord				
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 0° to 30° Keeping course	Α	Dive forward 0° to 30° Keeping course	Α
Cascade occurs	No	Α	No	Α
Folding lines used	No	Α	No	Α
At least 50% chord				
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 0° to 30° / Keeping course	Α	Dive forward 0° to 30° / Keeping course	Α
Cascade occurs	No	Α	No	Α
Folding lines used	No	Α	No	Α
With accelerator				
Entry	not available	0	not available	0
Recovery	not available	0	not available	0
Dive forward angle on exit / Change of course	not available	0	not available	0
Cascade occurs	not available	0	not available	0
Folding lines used	Not available	0	Not available	0
11. Exiting deep stall (parachutal stall)	Α			
Deep stall achieved	Yes	Α	Yes	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
Change of course	Changing course less than 45°	Α	Changing course less than 45°	Α
Cascade occurs	No	Α	No	Α
12. High angle of attack recovery	A			
Recovery	Spontaneous in less than 3 s	A	Spontaneous in less than 3 s	A
Cascade occurs	No B	Α	No	Α
13. Recovery from a developed full stall Dive forward angle on exit	Dive forward 0° to 30°	Α	Dive forward 30° to 60°	В
Collapse	No collapse	Α	No collapse	A
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	В		3	
Carell accommodate as Hanne				
Small asymmetric collapse 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 0° to 15°	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	Α	No (or only a small number of collapsed cells with a spontaneous reinflation)	Α
Twist occurs	spontaneous reinflation)			
	No	Α	No	Α
Cascade occurs		A A	No No	A A
Cascade occurs Folding lines used	No			
	No No	Α	No	Α
Folding lines used	No No	Α	No	Α
Folding lines used Large asymmetric collapse Change of course until re-inflation / Maximum dive forward or	No No No 90° to 180° / Dive or roll angle	A A	No No 90° to 180° / Dive or roll angle 15°	A A
Folding lines used Large asymmetric collapse Change of course until re-inflation / Maximum dive forward or roll angle	No No No 90° to 180° / Dive or roll angle 15° to 45°	A A B	No No 90° to 180° / Dive or roll angle 15° to 45°	A A B

Twist occurs	No	Α	No	Α
Cascade occurs	No	Α	No	Α
Folding lines used	No	Α	No	Α
Small asymmetric colleges with fully activated applicator				
Small asymmetric collapse with fully activated accelerator		0	net eveileble	0
Change of course until re-inflation / Maximum dive forward or roll angle	not available	0	not available	0
Re-inflation behaviour	not available	0	not available	0
Total change of course	not available	0	not available	0
Collapse on the opposite side occurs	not available	0	not available	0
Twist occurs	not available	0	not available	0
Cascade occurs	not available	0	not available	0
Folding lines used	Not available	0	Not available	0
Large asymmetric collapse with fully activated accelerator				
Change of course until re-inflation / Maximum dive forward or roll angle	not available	0	not available	0
Re-inflation behaviour	not available	0	not available	0
Total change of course	not available	0	not available	0
Collapse on the opposite side occurs	not available	0	not available	0
Twist occurs	not available	0	not available	0
Cascade occurs	not available	0	not available	0
Folding lines used	Not available	0	Not available	0
15. Directional control with a maintained asymmetric	Α			
collapse				
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	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
Spin occurs 17. Low speed spin tendency	No A	A	No	A
·		A	No No	A
17. Low speed spin tendency	A			
17. Low speed spin tendency Spin occurs	A No			
17. Low speed spin tendency Spin occurs 18. Recovery from a developed spin	A No A	A	No	A
17. Low speed spin tendency Spin occurs 18. Recovery from a developed spin Spin rotation angle after release	A No A Stops spinning in less than 90°	A	No Stops spinning in less than 90°	A
17. Low speed spin tendency Spin occurs 18. Recovery from a developed spin Spin rotation angle after release Cascade occurs	A No A Stops spinning in less than 90° No	A	No Stops spinning in less than 90°	A
17. Low speed spin tendency Spin occurs 18. Recovery from a developed spin Spin rotation angle after release Cascade occurs 19. B-line stall	A No A Stops spinning in less than 90° No A	A A A	No Stops spinning in less than 90° No	A A A
17. Low speed spin tendency Spin occurs 18. Recovery from a developed spin Spin rotation angle after release Cascade occurs 19. B-line stall Change of course before release	A No A Stops spinning in less than 90° No A Changing course less than 45°	A A A	No Stops spinning in less than 90° No Changing course less than 45°	A A A
17. Low speed spin tendency Spin occurs 18. Recovery from a developed spin Spin rotation angle after release Cascade occurs 19. B-line stall Change of course before release	A No A Stops spinning in less than 90° No A Changing course less than 45° Remains stable with straight	A A A	No Stops spinning in less than 90° No Changing course less than 45°	A A A
17. Low speed spin tendency Spin occurs 18. Recovery from a developed spin Spin rotation angle after release Cascade occurs 19. B-line stall Change of course before release Behaviour before release	A No A Stops spinning in less than 90° No A Changing course less than 45° Remains stable with straight span	A A A	No Stops spinning in less than 90° No Changing course less than 45° Remains stable with straight span	A A A A
17. Low speed spin tendency Spin occurs 18. Recovery from a developed spin Spin rotation angle after release Cascade occurs 19. B-line stall Change of course before release Behaviour before release Recovery	A No A Stops spinning in less than 90° No A Changing course less than 45° Remains stable with straight span Spontaneous in less than 3 s	A A A A A	No Stops spinning in less than 90° No Changing course less than 45° Remains stable with straight span Spontaneous in less than 3 s	A A A A
17. Low speed spin tendency Spin occurs 18. Recovery from a developed spin Spin rotation angle after release Cascade occurs 19. B-line stall Change of course before release Behaviour before release Recovery Dive forward angle on exit	A No A Stops spinning in less than 90° No A Changing course less than 45° Remains stable with straight span Spontaneous in less than 3 s Dive forward 0° to 30°	A A A A A	No Stops spinning in less than 90° No Changing course less than 45° Remains stable with straight span Spontaneous in less than 3 s Dive forward 0° to 30°	A A A A A
17. Low speed spin tendency Spin occurs 18. Recovery from a developed spin Spin rotation angle after release Cascade occurs 19. B-line stall Change of course before release Behaviour before release Recovery Dive forward angle on exit Cascade occurs	A No A Stops spinning in less than 90° No A Changing course less than 45° Remains stable with straight span Spontaneous in less than 3 s Dive forward 0° to 30° No	A A A A A	No Stops spinning in less than 90° No Changing course less than 45° Remains stable with straight span Spontaneous in less than 3 s Dive forward 0° to 30°	A A A A A
17. Low speed spin tendency Spin occurs 18. Recovery from a developed spin Spin rotation angle after release Cascade occurs 19. B-line stall Change of course before release Behaviour before release Recovery Dive forward angle on exit Cascade occurs 20. Big ears	A No A Stops spinning in less than 90° No A Changing course less than 45° Remains stable with straight span Spontaneous in less than 3 s Dive forward 0° to 30° No A	A A A A A	No Stops spinning in less than 90° No Changing course less than 45° Remains stable with straight span Spontaneous in less than 3 s Dive forward 0° to 30° No	A A A A A A
17. Low speed spin tendency Spin occurs 18. Recovery from a developed spin Spin rotation angle after release Cascade occurs 19. B-line stall Change of course before release Behaviour before release Recovery Dive forward angle on exit Cascade occurs 20. Big ears Entry procedure	A No A Stops spinning in less than 90° No A Changing course less than 45° Remains stable with straight span Spontaneous in less than 3 s Dive forward 0° to 30° No A Dedicated controls	A A A A A A	No Stops spinning in less than 90° No Changing course less than 45° Remains stable with straight span Spontaneous in less than 3 s Dive forward 0° to 30° No Dedicated controls	A A A A A A
17. Low speed spin tendency Spin occurs 18. Recovery from a developed spin Spin rotation angle after release Cascade occurs 19. B-line stall Change of course before release Behaviour before release Recovery Dive forward angle on exit Cascade occurs 20. Big ears Entry procedure Behaviour during big ears	A No A Stops spinning in less than 90° No A Changing course less than 45° Remains stable with straight span Spontaneous in less than 3 s Dive forward 0° to 30° No A Dedicated controls Stable flight	A A A A A A A	No Stops spinning in less than 90° No Changing course less than 45° Remains stable with straight span Spontaneous in less than 3 s Dive forward 0° to 30° No Dedicated controls Stable flight	A A A A A A
17. Low speed spin tendency Spin occurs 18. Recovery from a developed spin Spin rotation angle after release Cascade occurs 19. B-line stall Change of course before release Behaviour before release Recovery Dive forward angle on exit Cascade occurs 20. Big ears Entry procedure Behaviour during big ears Recovery	A No A Stops spinning in less than 90° No A Changing course less than 45° Remains stable with straight span Spontaneous in less than 3 s Dive forward 0° to 30° No A Dedicated controls Stable flight Spontaneous in less than 3 s	A A A A A A A A	No Stops spinning in less than 90° No Changing course less than 45° Remains stable with straight span Spontaneous in less than 3 s Dive forward 0° to 30° No Dedicated controls Stable flight Spontaneous in less than 3 s	A A A A A A A A
17. Low speed spin tendency Spin occurs 18. Recovery from a developed spin Spin rotation angle after release Cascade occurs 19. B-line stall Change of course before release Behaviour before release Recovery Dive forward angle on exit Cascade occurs 20. Big ears Entry procedure Behaviour during big ears Recovery Dive forward angle on exit	A No A Stops spinning in less than 90° No A Changing course less than 45° Remains stable with straight span Spontaneous in less than 3 s Dive forward 0° to 30° No A Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30°	A A A A A A A A	No Stops spinning in less than 90° No Changing course less than 45° Remains stable with straight span Spontaneous in less than 3 s Dive forward 0° to 30° No Dedicated controls Stable flight Spontaneous in less than 3 s	A A A A A A A A
17. Low speed spin tendency Spin occurs 18. Recovery from a developed spin Spin rotation angle after release Cascade occurs 19. B-line stall Change of course before release Behaviour before release Recovery Dive forward angle on exit Cascade occurs 20. Big ears Entry procedure Behaviour during big ears Recovery Dive forward angle on exit 21. Big ears in accelerated flight	A No A Stops spinning in less than 90° No A Changing course less than 45° Remains stable with straight span Spontaneous in less than 3 s Dive forward 0° to 30° No A Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30°	A A A A A A A A A	No Stops spinning in less than 90° No Changing course less than 45° Remains stable with straight span Spontaneous in less than 3 s Dive forward 0° to 30° No Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30°	A A A A A A A A
17. Low speed spin tendency Spin occurs 18. Recovery from a developed spin Spin rotation angle after release Cascade occurs 19. B-line stall Change of course before release Behaviour before release Recovery Dive forward angle on exit Cascade occurs 20. Big ears Entry procedure Behaviour during big ears Recovery Dive forward angle on exit 21. Big ears in accelerated flight Entry procedure	A No A Stops spinning in less than 90° No A Changing course less than 45° Remains stable with straight span Spontaneous in less than 3 s Dive forward 0° to 30° No A Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30° O not available	A A A A A A A A A A A A A A A A A A A	No Stops spinning in less than 90° No Changing course less than 45° Remains stable with straight span Spontaneous in less than 3 s Dive forward 0° to 30° No Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30° not available	A A A A A A A A A
17. Low speed spin tendency Spin occurs 18. Recovery from a developed spin Spin rotation angle after release Cascade occurs 19. B-line stall Change of course before release Behaviour before release Recovery Dive forward angle on exit Cascade occurs 20. Big ears Entry procedure Behaviour during big ears Recovery Dive forward angle on exit 21. Big ears in accelerated flight Entry procedure Behaviour during big ears	A No A Stops spinning in less than 90° No A Changing course less than 45° Remains stable with straight span Spontaneous in less than 3 s Dive forward 0° to 30° No A Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30° O not available not available	A A A A A A A A A A A A A A A A A A A	No Stops spinning in less than 90° No Changing course less than 45° Remains stable with straight span Spontaneous in less than 3 s Dive forward 0° to 30° No Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30° not available not available	A A A A A A A A A A A A A A A A A A A
17. Low speed spin tendency Spin occurs 18. Recovery from a developed spin Spin rotation angle after release Cascade occurs 19. B-line stall Change of course before release Behaviour before release Recovery Dive forward angle on exit Cascade occurs 20. Big ears Entry procedure Behaviour during big ears Recovery Dive forward angle on exit 21. Big ears in accelerated flight Entry procedure Behaviour during big ears Recovery Dive forward angle on exit	A No A Stops spinning in less than 90° No A Changing course less than 45° Remains stable with straight span Spontaneous in less than 3 s Dive forward 0° to 30° No A Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30° O not available not available	A A A A A A A O O O	No Stops spinning in less than 90° No Changing course less than 45° Remains stable with straight span Spontaneous in less than 3 s Dive forward 0° to 30° No Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30° not available not available not available	A A A A A A A A A A A A A A A A A A A
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17. Low speed spin tendency Spin occurs 18. Recovery from a developed spin Spin rotation angle after release Cascade occurs 19. B-line stall Change of course before release Behaviour before release Recovery Dive forward angle on exit Cascade occurs 20. Big ears Entry procedure Behaviour during big ears Recovery Dive forward angle on exit 21. Big ears in accelerated flight Entry procedure Behaviour during big ears Recovery Dive forward angle on exit Entry procedure Behaviour during big ears Recovery Dive forward angle on exit Behaviour immediately after releasing the accelerator while	A No A Stops spinning in less than 90° No A Changing course less than 45° Remains stable with straight span Spontaneous in less than 3 s Dive forward 0° to 30° No A Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30° o not available not available not available not available	A A A A A A A A A A A A A A A A A A A	No Stops spinning in less than 90° No Changing course less than 45° Remains stable with straight span Spontaneous in less than 3 s Dive forward 0° to 30° No Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30° not available not available not available not available	A A A A A A A A A A A A A A A A A A A
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17. Low speed spin tendency Spin occurs 18. Recovery from a developed spin Spin rotation angle after release Cascade occurs 19. B-line stall Change of course before release Behaviour before release Recovery Dive forward angle on exit Cascade occurs 20. Big ears Entry procedure Behaviour during big ears Recovery Dive forward angle on exit 21. Big ears in accelerated flight Entry procedure Behaviour during big ears Recovery Dive forward angle on exit 21. Big ears in accelerated flight Entry procedure Behaviour during big ears Recovery Dive forward angle on exit Behaviour immediately after releasing the accelerator while maintaining big ears 22. Alternative means of directional control	A No A Stops spinning in less than 90° No A Changing course less than 45° Remains stable with straight span Spontaneous in less than 3 s Dive forward 0° to 30° No A Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30° o not available flight not available not available not available not available	A A A A A A A A A A A A A A A A A A A	No Stops spinning in less than 90° No Changing course less than 45° Remains stable with straight span Spontaneous in less than 3 s Dive forward 0° to 30° No Dedicated controls Stable flight Spontaneous in less than 3 s Dive forward 0° to 30° not available not available not available not available not available not available	A A A A A A A A A A A A A A A A A A A

23. 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

24. Comments of test pilot

Comments