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Villeneuve

AIR TURQUOISE SA certified by

Flight test report: EN

None

ISO 9001
BUREAU VERITAS
Certification

Manufacturer	Aéros LTD	Certification number	PG_0571.2012
Address	5, Post-Volynskaja str. 03061 Kiev Ukraine	Date of flight test	11. 09. 2012

Place of test

Glider model Mirage M Classification C

Trimmer no

Representative

Special landing technique required B Trim speed more than 30 km/h Speed range using the controls larger than 10 km/h Yes A Yes A Yes A Yes A Minimum speed Less than 25 km/h A Less than 26 km/h A Less than					
Total weight in flight (kg) 85 100 100 11 110	Test pilo	t Thurnheer Claude		Berruex Gilles	
Total weight in flight (kg) 85 100 100 11 110	Harness	Sup' Air - Access M		Sup' Air - Alptiplume M	
Rising behaviour Smooth, easy and constant rising A Smooth, easy and constant rising A Smooth, easy and constant rising A Special take of technique required No A No A No A Special landing technique required No A No A No A Special landing technique required No A No A No A Special landing technique required No No A Special landing required		·			
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Minimum speed Less than 25 km/h A 25 km/h to 30 km/h B 4. Control movement Max. weight in flight up to 80 kg Symmetric control pressure / travel not available 0 not availabl	Speed range using the controls larger than 10 km/h	Yes	Α	Yes	Α
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Symmetric control pressure / travel Max. weight in flight greater than 100 kg Symmetric control pressure / travel not available 0 spive forward less than 30° A Dive forward less than 30° A No A Reducing A Reducing A Reducing A Stability in gentle spirals A Spontaneous exit B Sink rate after two turns B Sink rate after two turns B Cotty Cotty B Co	•				
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Symmetric control pressure / travel not available 0 not available 10 not available 0 not available 10 not av		3		3	
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6. Pitch stability operating controls during accelerated flight Collapse occurs No No A No A No A 7. Roll stability and damping Oscillations Reducing A 8. Stability in gentle spirals A Tendency to return to straight flight Spontaneous exit A 9. Behaviour in a steeply banked turn B Sink rate after two turns More than 14 m/s B 10. Symmetric front collapse Entry Rocking back less than 45° Spontaneous in less than 3 s A Spontaneous in less than 45° A Rocking back less than 45°		No	Α	No	
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9. Behaviour in a steeply banked turn Sink rate after two turns More than 14 m/s B More than 14 m/s B More than 14 m/s B 10. Symmetric front collapse B Entry Rocking back less than 45° A Rocking back less than 45° A Spontaneous in less than 3 s A Dive forward angle on exit / Change of course Dive forward 0° to 30° / Keeping course Cascade occurs No A No A Rocking back less than 45° A	8. Stability in gentle spirals	Α			
Sink rate after two turns More than 14 m/s B More than 14 m/s B 10. Symmetric front collapse B Entry Rocking back less than 45° A 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 Cascade occurs No A No A With accelerator Entry Rocking back less than 45° A	Tendency to return to straight flight	Spontaneous exit	Α	Spontaneous exit	Α
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course course Cascade occurs No A With accelerator Entry Rocking back less than 45° A course A No A Rocking back less than 45° A Rocking back less than 45° A	Recovery	Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α
With accelerator Entry Rocking back less than 45° A Rocking back less than 45° A	Dive forward angle on exit / Change of course		Α		Α
Entry Rocking back less than 45° A Rocking back less than 45° A	Cascade occurs	No	Α	No	Α
·	With accelerator				
Recovery Spontaneous in 3 s to 5 s B Spontaneous in less than 3 s A	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 0° to 30° / Keeping course	Α	Dive forward 30° to 60° / Keeping course	В
Cascade occurs	No	Α	No	Α
11. Exiting deep stall (parachutal stall)	A			
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	Α	Spontaneous in less than 3 s	Α
Cascade occurs	No	Α	No	Α
13. Recovery from a developed full stall	Α			
Dive forward angle on exit	Dive forward 0° to 30°	Α	Dive forward 0° to 30°	Α
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	C		wost intes tight	
With 50% collapse	•			
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 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	Α	No	Α
Twist occurs	No	Α	No	Α
Cascade occurs	No	Α	No	Α
With 75% collapse	110	, ,	110	,,
Change of course until re-inflation / Maximum dive forward or roll angle	90° to 180° / Dive or roll angle 45° to 60°	С	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	Yes, no turn reversal	С	No No	Α
Twist occurs	No	Α	No	Α
Cascade occurs	No	Α	No	Α
With 50% collapse and accelerator	140		110	^
Change of course until re-inflation / Maximum dive forward or roll angle	Less than 90° / Dive or roll angle 15° to 45°	Α	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	Α	No	Α
Twist occurs	No	Α	No	Α
Cascade occurs	No	Α	No	Α
With 75% collapse and accelerator		, ,		,,
Change of course until re-inflation / Maximum dive forward or roll angle	90° to 180° / Dive or roll angle 45° to 60°	С	180° to 360° / 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	Α	Yes, no turn reversal	С
Twist occurs	No	Α	No	A
Cascade occurs	No	Α	No	Α
15. Directional control with a maintained asymmetric	A	,,		,,
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
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	С			
Change of course before release	Changing course less than 45°	Α	Changing course more than 45°	С
Behaviour before release	Remains stable with straight span	Α	Remains stable without straight span	С
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 30° to 60°	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	A			
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]	17		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				