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Thurnheer Claude

AIR TURQUOISE SA certified by

Flight test report: EN

ISO 9001
BUREAU VERITAS
Certification

Manufacturer Sky Paragliders a.s. Certification number PG_0819.2013
Address Okružní 39 Date of flight test 18. 11. 2013

Test pilot Dupont Philippe

73911 Frýdlant nad Ostravicí

Czech Republic

Representative None Place of test Villeneuve

Glider model Argos M Classification C

Trimmer no

Dive forward angle on exit / Change of course

Cascade occurs

With accelerator

Entry

Recovery

	s Sup'Air - Altiplume S		Niviuk - Hamak M	
Total weight in flight (kg	j) 75		90	
Inflation/Take-off	Α			
ising behaviour	Smooth, easy and constant rising	Α	Smooth, easy and constant rising	Α
pecial take off technique required	No	Α	No	Α
Landing	Α			
pecial landing technique required	No	Α	No	Α
Speed in straight flight	A			
rim speed more than 30 km/h	Yes	Α	Yes	Α
peed range using the controls larger than 10 km/h	Yes	Α	Yes	Α
inimum speed	Less than 25 km/h	Α	Less than 25 km/h	Α
Control movement	С			
ax. weight in flight up to 80 kg				
ymmetric control pressure / travel	Increasing / greater than 55 cm	Α	not available	0
ax. weight in flight 80 kg to 100 kg				
ymmetric control pressure / travel	not available	0	Increasing / 45 cm to 60 cm	С
ax. weight in flight greater than 100 kg				
ymmetric control pressure / travel	not available	0	not available	0
Pitch stability exiting accelerated flight	A			
ive forward angle on exit	Dive forward less than 30°	Α	Dive forward less than 30°	Α
ollapse occurs	No	Α	No	Α
Pitch stability operating controls during accelerated ght	Α			
ollapse occurs	No	Α	No	Α
Roll stability and damping	Α			
scillations	Reducing	Α	Reducing	Α
Stability in gentle spirals	Α			
endency to return to straight flight	Spontaneous exit	Α	Spontaneous exit	Α
Behaviour in a steeply banked turn	В			
nk rate after two turns	More than 14 m/s	В	More than 14 m/s	В
). Symmetric front collapse	С			
ntry	Rocking back less than 45°	Α	Rocking back less than 45°	Α
ecovery	Spontaneous in less than 3 s	Α	Spontaneous in less than 3 s	Α

Dive forward 0° to 30° / Keeping

Rocking back less than 45°

Spontaneous in less than 3 s

course

No

Α

course

No

Α

Α

С

Α

Dive forward 0° to 30° / Keeping

Rocking back greater than 45°

Spontaneous in less than 3 s

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
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	В			,,
Dive forward angle on exit	Dive forward 30° to 60°	В	Dive forward 30° to 60°	В
Collapse	No collapse	A	No collapse	A
Cascade occurs (other than collapses)	No	Α	No	Α
	Less than 45°		Less than 45°	
Rocking back		A		A
Line tension	Most lines tight	Α	Most lines tight	Α
14. Asymmetric collapse	С			
With 50% collapse				
Change of course until re-inflation / Maximum dive forward or roll angle	Less than 90° / Dive or roll angle 0° to 15°	А	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				
Change of course until re-inflation / Maximum dive forward or roll angle	180° to 360° / Dive or roll angle 15° to 45°	С	180° to 360° / Dive or roll angle 15° to 45°	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	No	Α
Twist occurs	No	Α	No	Α
Cascade 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°	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	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	Less than 90° / Dive or roll angle 60° to 90°	С	90° to 180° / Dive or roll angle 60° to 90°	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	No No	Α
Twist occurs	No	A	No	A
Cascade occurs	No	Α	No	Α
	A	A	NO	A
15. Directional control with a maintained asymmetric 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	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	Standard technique	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	Standard technique	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]	25		25	
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				