Turn angle to recover normal flight



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

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Manufacturer	Niviuk Gliders / Air Games S.L.	Certification number		PG_0946.2015	
Address	C. Del Ter, 6 – Nave D 17165 La Cellera de Ter Girona Spain	Date of flight test		19. 05. 2015	
Glider model	Peak 4 23	Classification		D	
Serial number	Peak 4 1-23	Representative		None	
Trimmer		Place of test		Villeneuve	
THIIIIICI	no	Flace of lest		villerieuve	
Test pilot		Thurnheer Claude		Berruex Gilles	
Harness		Niviuk - Hamak M		Supair - Access M	
Harness to risers di	stance (cm)	43		43	
Distance between ri	• •	44		46	
	• •				
Total weight in fligh	t (Kg)	85		105	
1. Inflation/Take-off		С			
Rising behaviour		Overshoots, shall be slowed	С	Overshoots, shall be slowed down	С
		down to avoid a front collapse		to avoid a front collapse	
Special take off technique	required	No	Α	No	Α
2. Landing		A			
Special landing technique		No	Α	No	Α
3. Speed in straight fligh		В			
Trim speed more than 30 km/h		Yes	A	Yes	A
Speed range using the controls larger than 10 km/h		Yes	A	Yes	A
Minimum speed		25 km/h to 30 km/h	В	25 km/h to 30 km/h	В
4. Control movement		C			
Max. weight in flight up t	o 80 kg				
Symmetric control pressure / travel		not available	0	not available	0
Max. weight in flight 80 kg to 100 kg			_		•
Symmetric control pressur	e / travel	Increasing / 45 cm to 60 cm	С	not available	0
Max. weight in flight grea	ater than 100 kg				
Symmetric control pressur	e / travel	not available	0	Increasing / 50 cm to 65 cm	С
5. Pitch stability exiting a	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 operatin flight	g controls during accelerated	Α			
Collapse occurs		No	Α	No	Α
7. Roll stability and dam	ping	A			
Oscillations		Reducing	Α	Reducing	Α
8. Stability in gentle spira		A		0 1	
Tendency to return to strai		Spontaneous exit	Α	Spontaneous exit	Α
9. Behaviour exiting a fu		D Immediate increase in rate of	0	Immediate increase in rate of turn	<u> </u>
Initial response of glider (fi		Immediate increase in rate of turn	C	Immediate increase in rate of turn	С
Tendency to return to strai	ght flight	Turn remains constant (g force constant, rate of turn constant)	D	Turn remains constant (g force constant, rate of turn constant)	D
	1.00	MARKE 11 - 4 41 -	_	1 A C C C	

D With pilot action

With pilot action

10. Symmetric front collapse	U			
Approximately 30 % chord				
Entry	Rocking back less than 45°	Α	Rocking back less than 45°	Α
Recovery	Spontaneous in 3 s to 5 s	В	Spontaneous in 3 s to 5 s	В
Dive forward angle on exit Change of course	Dive forward 0° to 30° Keeping course	A	Dive forward 30° to 60° Keeping course	В
Cascade occurs	No	Α	No	Α
Folding lines used	Yes	D	Yes	D
-				
At least 50% chord				
Entry	Rocking back less than 45°	Α	Rocking back less than 45°	Α
Recovery	Recovery through pilot action in less than a further 3 s	D	Recovery through pilot action in less than a further 3 s	D
Dive forward angle on exit / Change of course	Dive forward 30° to 60° / Keeping course	В	Dive forward 30° to 60° / Keeping course	В
Cascade occurs	No	Α	No	Α
Folding lines used	Yes	D	Yes	D
With accelerator				
Entry	Rocking back greater than 45°	С	Rocking back greater than 45°	С
Recovery	Spontaneous in 3 s to 5 s	В	Recovery through pilot action in	D
Dive forward angle on exit / Change of course	Dive forward 0° to 30° / Keeping	A	less than a further 3 s Dive forward 30° to 60° / Entering a	В
Dive forward angle on exit? Onlinge of course	course		turn of less than 90°	Ь
Cascade occurs	No	Α	No	Α
Folding lines used	Yes	D	Yes	D
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	С			
Recovery	Spontaneous in less than 3 s	Α	Spontaneous in 3 s to 5 s	С
Cascade occurs	No	Α	No	Α
13. Recovery from a developed full stall	В			
Dive forward angle on exit	Dive forward 0° to 30°	Α	Dive forward 30° to 60°	В
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	D			
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	Α
Twist occurs	spontaneous reinflation)	۸	reinflation)	٨
Twist occurs Cascade occurs	No No	A	No No	Α Δ
		A D	Yes	A D
Folding lines used	Yes	ט	। ८०	D
Large asymmetric collapse		_		_
Change of course until re-inflation / Maximum dive forward or roll angle	90° to 180° / Dive or roll angle 45° to 60°	C	90° to 180° / Dive or roll angle 45° to 60°	C .
Re-inflation behaviour	Spontaneous re-inflation	Α	Spontaneous re-inflation	A
Total change of course	Less than 360°	Α	Less than 360°	Α

D

10. Symmetric front collapse

Collapse on the opposite side occurs	No (or only a small number of	Α	No (or only a small number of	Α
	collapsed cells with a spontaneous reinflation)		collapsed cells with a spontaneous reinflation)	
Twist occurs	No	Α	No	Α
Cascade occurs	No	Α	No	Α
Folding lines used	Yes	D	Yes	D
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	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	D	Yes	D
Large asymmetric collapse with fully activated accelerator		_	4000 4 0000 4 D: H	-
Change of course until re-inflation / Maximum dive forward or roll angle	90° to 180° / Dive or roll angle 60° to 90°	D	180° to 360° / Dive or roll angle 60° to 90°	D
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	Yes, no turn reversal	С
Twist occurs	No	Α	No	Α
Cascade occurs	No	Α	No	Α
Folding lines used	Yes	D	Yes	D
15. Directional control with a maintained asymmetric	A			
collapse	V		V	
Able to keep course	Yes	A	Yes	A
180° turn away from the collapsed side possible in 10 s	Yes More than 50 % of the	A	Yes	A
Amount of control range between turn and stall or spin	symmetric control travel	Α	More than 50 % of the symmetric control travel	Α
16. Trim speed spin tendency	A			
Spin occurs	No	Α	No	Α
17. Low speed spin tendency	D		V	_
Spin occurs	Yes	D	Yes	D
18. Recovery from a developed spin	D	_	Otana animaina in 00% ta 400%	_
Spin rotation angle after release	Stops spinning in 180° to 360°	D	Stops spinning in 90° to 180°	В
Cascade occurs 19. B-line stall	No 0	Α	No	Α
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	A	U	not available	U
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	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
Behaviour immediately after releasing the accelerator while	Stable flight	Α	Stable flight	Α

22. Alternative means of directional control	Α		
180° turn achievable in 20 s	Yes	A Yes	Α
Stall or spin occurs	No	A No	Α
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