Manufacturer	Mac Para	Type testing No.	EAPR-GS-7164/09
Address	756 61 Roznov pod Radhostem - CZ	Date of testing	19.02 - 02.04.2009
Model	Progress 25	Location	Madeira/Achensee



European Academy of Parachute Rigging e.V - Luitpoldstr. 30 - D87700 Memmingen - Germany Under approval of EPTA European Paraglider Testlaboratory Alicane

	Minimum take off weight	Maximum take off weight		
Testpilot	Wibke Becker	Johannes Tschofen		
Harness	Academy	Academy		
Pilot's take off weight	70 kg	90 kg		

Classification	Α
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The second section		Minimum to Land Control of	Evelvetion	Martin and a grant of a	Fuelvetion	
st-criteria		Minimum take off weight	Evaluation	Maximum take off weight	Evaluation	
1. Inflation / take-off - 4.4.1						
Rising behavior		Smooth, easy and constant rising	Α	Smooth, easy and constant rising	А	
Special take off technique required		No	Α	No	А	
2. Landing - 4.4.2						
Special landing technique required		No	А	No	А	
3. Speeds in straight flight - 4.4.3						
Trim speed more than 30km/h		Yes	А	Yes		
Speed range using the controls larger than 10km/	h	Yes	А	Yes	А	
Minimum speed		Less than 25 km/h	А	Less than 25 km/h	А	
4. Control movement - 4.4.4						
Max. weight in flight up to 80kg		Increasing > 55cm	Α		-	
Max. weight in flight 80 to 100kg			-	Increasing > 60cm	А	
Max. weight in flight greater than 100kg			-		-	
5. Pitch stability exiting accelerated flight - 4.4	1.5					
Dive forward angle on exit	, ,		A	Dive forward less than 30°	А	
Collapse occurs		No	A	No	A	
6. Pitch stability operating controls during acc	elerated f	light - 4.4.6				
Collapse occurs		No	А	No	А	
7. Roll stability and damping - 4.4.7						
Oscillations		Reducing	А	Reducing	A	
8. Stability in gentle spirals - 4.4.8						
Tendency to return to straight flight		Spontaneous exit	А	Spontaneous exit	А	
9. Behaviour in a steeply banked turn - 4.4.9						
Sink rate after two turns		Up to 12m/s	Α	Up to 12m/s	А	
10. Symmetric front collapse - 4.4.10						
Entry		Rocking back less than 45°	Α	Rocking back less than 45°	А	
Recovery	trim speed	Spontaneous in less than 3 sec	А	Spontaneous in less than 3 sec	А	
Dive forward angle on exit		0° - 30° Keeping course	А	0° - 30° Keeping course	А	
Cascade occurs		1 =	No	А	No	А
Entry	d	Rocking back less than 45°	A	Rocking back less than 45°	Α	
Recovery	rate	Spontaneous in less than 3 sec	A	Spontaneous in less than 3 sec	A	
Dive forward angle on exit	accelerated	0° - 30° Keeping course	Α	0° - 30° Keeping course	A	
Cascade occurs	ğ	No	Α	No	А	

44 Eviting doop stall (parachutal stall) 4.4.44									
11. Exiting deep stall (parachutal stall) - 4.4.11  Deep stall achieved Yes				Yes					
Deep stall achieved									
Recovery	overy		less than 3 sec		Α	Spontaneous in	less than 3 sec		Α
Dive forward angle on exit		0° - 30°			Α	0° - 30°			Α
Change of course  Cascade occurs		Changing course	e less than 45°		A	Changing course No	e less than 45°		A
12. High angle of attack recovery - 4.4.12		INO			А	INO			А
12. Flight aligie of attack recovery - 4.4.12		T .				ı			
Recovery		Spontaneous in	less than 3 sec		Α	Spontaneous in	less than 3 sec		Α
Cascade occurs		No			Α	No			Α
13. Recovery from a developed full stall - 4.4.1	3								
Dive forward angle on exit		0° - 30°			Α	0° - 30°			Α
Collapse		No collapse			A	No collapse			A
Cascade occurs (other than collapse)  Rocking backward		No Less than 45°			A	No Less than 45°			A
Line tension		Most lines tight			A	Most lines tight			A
14. Asymmetric collapse (trim speed) - 4.4.14									
Change of course until re inflation		< 90°	Dive or roll angle	0° - 15°	^	< 90°	Dive or roll angle	0° - 15°	۸
Change of course until re-inflation	bse	< 90"	Dive or roll angle	0 15-	А	< 90	Dive or roll angle	015-	А
Re-inflation behavior	trim speed, max 50% collapse	Spontaneous re-	-inflation		Α	Spontaneous re	-inflation		Α
Total change of course	trim speed, x 50% colla	Less than 360°			A	Less than 360°			A
Collapse on the opposite side occurs	x 50	No			A	No			A
Twist occurs	ma	No			Α	No			А
Cascade occurs		No	Ī	1	Α	No	T		Α
Change of course until re-inflation	Φ	90° - 180°	Dive or roll angle	0° - 15°	Α	< 90°	Dive or roll angle	15° - 45°	Α
	trim speed, max 75% collapse	_	<u> </u>	1		<u> </u>	<u> </u>		
Re-inflation behavior	Deec Co	Spontaneous re-	-inflation		Α	Spontaneous re	-inflation		Α
Total change of course	m st	Less than 360°			Α	Less than 360°			Α
Collapse on the opposite side occurs	trii ax 7	No			Α	No			Α
Twist occurs  Cascade occurs	É	No No			A	No No			A
Castage octurs		140		1	А	140			Α
Change of course until re-inflation	Ф	90° - 180°	Dive or roll angle	0° - 15°	Α	< 90°	Dive or roll angle	0° - 15°	Α
	accelerated, max 50% collapse								
Re-inflation behavior	accelerated, x 50% collap	Spontaneous re-	-inflation		Α	Spontaneous re	-inflation		Α
Total change of course	cele	Less than 360°			Α	Less than 360°			Α
Collapse on the opposite side occurs	ax (	No			A	No No			A
Twist occurs  Cascade occurs	Ε	No No			A	No No			A
								450 450	
Change of course until re-inflation	Se	90° - 180°	Dive or roll angle	0° - 15°	Α	< 90°	Dive or roll angle	15° - 45°	Α
Re-inflation behavior	ited, ollap	Spontaneous re-	-inflation		Α	Spontaneous re	-inflation		Α
Total change of course	elera % o	Less than 360°			A	Less than 360°		Α	
Collapse on the opposite side occurs	accelerated, max 75% collapse				A	No No			A
Twist occurs	max s	No		A	No			A	
Cascade occurs		No			Α	No			Α
15. Directional control with a maintained asymi	metric col	llapse - 4.4.15							
Able to keep course straight		Yes			Α	Yes			Α
180° turn away from the collapsed side possible in 10 sec Yes		Α	Yes		Α				
		More than 50% of the symmetric control travel				More than 50% of the symmetric control travel			
Amount of control range between turn and stall or	spin	More than 50% (	of the symmetric of	control travel	А	More than 50%	of the symmetric o	ontrol travel	Α
16. Trim speed spin tendency - 4.4.16									
Spin occurs		No			Α	No			Α
17. Low speed spin tendency - 4.4.17									
Spin occurs		No			А	No			Α
18. Recovery from a developed spin - 4.4.18									
Spin rotation angle after release		Stops spinning in less than 90°			Α	Stops spinning i	n less than 90°		Α
Cascade occurs		No			A	No			A
19. B-line-stall - 4.4.19		1							
Change of course before release		Changing course	e less than 45°		А	Changing cours	e less than 45°		А
<u> </u>					A				
Behaviour before release	Behaviour before release		Remains stable with straight span			Remains stable with straight span			А
Recovery		Spontaneous in less than 3 sec			Α	Spontaneous in less than 3 sec			Α
Dive forward angle on exit			A	0° - 30°			A		
Once forward angle on exit U° - 30°  Cascade occurs No		A	No			A			
20. Big ears - 4.4.20									
Entry procedure		Special davias	equired		А	Special davias	equired		۸
• •	Special device required			Special device r	equileu		Α		
Behaviour during big ears		Stable flight		А	Stable flight			Α	
Recovery		Spontaneous in less than 3 sec		А	Spontaneous in less than 3 sec			Α	
Dive forward angle on exit		0° - 30°	•		А	0° bis 30°			А
21. Big Ears in accelerated flight - 4.4.21			I						
		Special desiles	oguirod		Λ	Special desile	oguirod		
Entry procedure		Special device re	equired		Α	Special device r	equired		Α
		Special device re	equired		A	Special device r	equired		A
Entry procedure			·						
Entry procedure Behaviour during big ears		Stable flight	·		A	Stable flight			A
Entry procedure  Behaviour during big ears  Recovery	ator while	Stable flight  Spontaneous in	·		A	Stable flight Spontaneous in			A A

22. Behaviour exiting a steep spiral - 4.4.22				
Tendency to return to straight flight	Spontaneous exit	А	Spontaneous exit	A
Turn angle to recover normal flight	Less than 720°, spontaneous recovery	Α	Less than 720°, spontaneous recovery	
23. Alternative means of directional control - 4	.4.23			
180° turn achievable in 20 sec	Yes	А	Yes	Α
Stall or spin occurs	No	Α	No	Α
24. Any other flight procedure and/or configura	ation described in the user's manual - 4.4.24			
Procedure works as descibed		NA		NA
Procedure suitable for novice pilots		NA		NA
Cascade occurs		NA		NA
25. Remarks of testpilot:				
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