




Manufacturer		Type testing No.	EAPR-GS-7451/11
		Date of testing	11.08.2011
Model	Marvel 27	Location	Achensee



EAPR e.V - Marktstr. 11 - D-87730 Bad Grönenbach - Germany

	<b>Minimum take off weight</b>	<b>Maximum take off weight</b>
Testpilot	Mike Küng 	Tschofen Johannes 
Harness	Academy-Equipment	Academy Test Equipment
Pilot's take off weight	90 kg	110 kg

Classification	C
----------------	---



Test-criteria	Minimum take off weight	Evaluation	Maximum take off weight	Evaluation
<b>1. Inflation / take-off - 4.1.1</b>				
Rising behavior	Smooth, easy and constant rising	A	Smooth, easy and constant rising	A
Special take off technique required	No	A	No	A
<b>2. Landing - 4.1.2</b>				
Special landing technique required	No	A	No	A
<b>3. Speeds in straight flight - 4.1.3</b>				
Trim speed more than 30km/h	Yes	A	Yes	A
Speed range using the controls larger than 10km/h	Yes	A	Yes	A
Minimum speed	Less than 25 km/h	A	Less than 25 km/h	A
<b>4. Control movement - 4.1.4</b>				
Max. weight in flight up to 80kg		-		-
Max. weight in flight 80 to 100kg	Increasing 45cm - 60cm	C		-
Max. weight in flight greater than 100kg		-	Increasing 50cm - 65cm	C
<b>5. Pitch stability exiting accelerated flight - 4.1.5</b>				
Dive forward angle on exit	Dive forward less than 30°	A	Dive forward less than 30°	A
Collapse occurs	No	A	No	A
<b>6. Pitch stability operating controls during accelerated flight - 4.1.6</b>				
Collapse occurs	No	A	No	A
<b>7. Roll stability and damping - 4.1.7</b>				
Oscillations	Reducing	A	Reducing	A
<b>8. Stability in gentle spirals - 4.1.8</b>				
Tendency to return to straight flight	Spontaneous exit	A	Spontaneous exit	A
<b>9. Behaviour in a steeply banked turn - 4.1.9</b>				
Sink rate after two turns	More than 14m/s	B	More than 14m/s	B
<b>10. Symmetric front collapse - 4.1.10</b>				
Entry	Rocking back less than 45°	A	Rocking back less than 45°	A
Recovery	Spontaneous in 3 to 5 sec	B	Spontaneous in 3 to 5 sec	B
Dive forward angle on exit	30° - 60°   Entering a turn of less than 90°	B	30° - 60°   Entering a turn of 90° to 180°	C
Cascade occurs	No	A	No	A
Entry	Rocking back less than 45°	A	Rocking back less than 45°	A
Recovery	Spontaneous in 3 to 5 sec	B	Spontaneous in 3 to 5 sec	B
Dive forward angle on exit	30° - 60°   Entering a turn of 90° to 180°	C	30° - 60°   Entering a turn of 90° to 180°	C
Cascade occurs	No	A	No	A

11. Exiting deep stall (parachutal stall) - 4.1.11									
Deep stall achieved	Yes				Yes				
Recovery	Spontaneous in less than 3 sec			A	Spontaneous in less than 3 sec			A	
Dive forward angle on exit	0° - 30°			A	0° - 30°			A	
Change of course	Changing course less than 45°			A	Changing course less than 45°			A	
Cascade occurs	No			A	No			A	
12. High angle of attack recovery - 4.1.12									
Recovery	Spontaneous in less than 3 sec			A	Spontaneous in less than 3 sec			A	
Cascade occurs	No			A	No			A	
13. Recovery from a developed full stall - 4.1.13									
Dive forward angle on exit	30° - 60°			B	30° - 60°			B	
Collapse	No collapse			A	No collapse			A	
Cascade occurs (other than collapse)	No			A	No			A	
Rocking backward	Less than 45°			A	Less than 45°			A	
Line tension	Most lines tight			A	Most lines tight			A	
14. Asymmetric collapse (trim speed) - 4.1.14									
Change of course until re-inflation	trim speed, max 50% collapse	< 90°	Dive or roll angle	0° - 15°	A	< 90°	Dive or roll angle	0° - 15°	A
Re-inflation behavior		Inflates in less than 3 sec from start of pilot action			C	Inflates in less than 3 sec from start of pilot action			C
Total change of course		Less than 360°			A	Less than 360°			A
Collapse on the opposite side occurs		No			A	No			A
Twist occurs		No			A	No			A
Cascade occurs	No			A	No			A	
Change of course until re-inflation	trim speed, max 75% collapse	< 90°	Dive or roll angle	15° - 45°	A	< 90°	Dive or roll angle	15° - 45°	A
Re-inflation behavior		Inflates in less than 3 sec from start of pilot action			C	Inflates in less than 3 sec from start of pilot action			C
Total change of course		Less than 360°			A	Less than 360°			A
Collapse on the opposite side occurs		No			A	Yes, no turn reversal			C
Twist occurs		No			A	No			A
Cascade occurs	No			A	No			A	
Change of course until re-inflation	accelerated, max 50% collapse	< 90°	Dive or roll angle	15° - 45°	A	< 90°	Dive or roll angle	15° - 45°	A
Re-inflation behavior		Inflates in less than 3 sec from start of pilot action			C	Inflates in less than 3 sec from start of pilot action			C
Total change of course		Less than 360°			A	Less than 360°			A
Collapse on the opposite side occurs		No			A	Yes, no turn reversal			C
Twist occurs		No			A	No			A
Cascade occurs	No			A	No			A	
Change of course until re-inflation	accelerated, max 75% collapse	< 90°	Dive or roll angle	45° - 60°	C	90° - 180°	Dive or roll angle	60° - 90°	C
Re-inflation behavior		Inflates in less than 3 sec from start of pilot action			C	Inflates in less than 3 sec from start of pilot action			C
Total change of course		Less than 360°			A	Less than 360°			A
Collapse on the opposite side occurs		No			A	Yes, no turn reversal			C
Twist occurs		No			A	No			A
Cascade occurs	No			A	No			A	
15. Directional control with a maintained asymmetric collapse - 4.1.15									
Able to keep course straight	Yes			A	Yes			A	
180° turn away from the collapsed side possible in 10 sec	Yes			A	Yes			A	
Amount of control range between turn and stall or spin	25% to 50% of the symmetric control travel			C	25% to 50% of the symmetric control travel			C	
16. Trim speed spin tendency - 4.1.16									
Spin occurs	No			A	No			A	
17. Low speed spin tendency - 4.1.17									
Spin occurs	No			A	No			A	
18. Recovery from a developed spin - 4.1.18									
Spin rotation angle after release	Stops spinning in less than 90°			A	Stops spinning in less than 90°			A	
Cascade occurs	No			A	No			A	
19. B-line-stall - 4.1.19									
Change of course before release	Changing course less than 45°			A	Changing course less than 45°			A	
Behaviour before release	Remains stable with straight span			A	Remains stable with straight span			A	
Recovery	Spontaneous in less than 3 sec			A	Spontaneous in less than 3 sec			A	
Dive forward angle on exit	0° - 30°			A	30° - 60°			A	
Cascade occurs	No			A	No			A	
20. Big ears - 4.1.20									
Entry procedure	Special device required			A	Special device required			A	
Behaviour during big ears	Stable flight			A	Stable flight			A	
Recovery	Recovery through pilot action in less than a further 3 sec			B	Recovery through pilot action in less than a further 3 sec			B	
Dive forward angle on exit	0° - 30°			A	0° bis 30°			A	
21. Big Ears in accelerated flight - 4.1.21									
Entry procedure	Special device required			A	Special device required			A	
Behaviour during big ears	Stable flight			A	Stable flight			A	
Recovery	Recovery through pilot action in less than a further 3 sec			B	Recovery through pilot action in less than a further 3 sec			B	
Dive forward angle on exit	0° - 30°			A	0° bis 30°			A	
Behaviour immediately after releasing the accelerator while maintaining big ears	Stable flight			A	Stable flight			A	

22. Behaviour exiting a steep spiral - 4.1.22				
Tendency to return to straight flight	Spontaneous exit	A	Spontaneous exit	A
Turn angle to recover normal flight	Less than 720°, spontaneous recovery	A	Less than 720°, spontaneous recovery	A
23. Alternative means of directional control - 4.1.23				
180° turn achievable in 20 sec	Yes	A	Yes	A
Stall or spin occurs	No	A	No	A
24. Any other flight procedure and/or configuration described in the user's manual - 4.1.24				
Procedure works as described		NA		NA
Procedure suitable for novice pilots		NA		NA
Cascade occurs		NA		NA
25. Remarks of testpilot:				
Copyright Ralf Antz 2010		This Flight Test Report was generated automatically and is valid without signature		