




FTR - Flight Test Report

Dieser Prüfbericht darf ohne schriftliche Zustimmung der EAPR nicht, auch nicht auszugsweise, vervielfältigt werden.

Manufacturer	 MAC PARA TECHNOLOGY Telefon 2615 CH-756 Roznov pod Radhostem	Type testing No.	EAPR-GS-0267/14
		serial number	3124-4046
Model	Elan 24	Location	Achensee
			Schruns



Rev. 2.1 - 10.05.2013
 EAPR GmbH - Marktstr. 11
 D-87730 Bad Grönenbach - Germany

Date of testing	19.-21.06.2014	Minimum take off weight 70 kg	Maximum take off weight 90 kg
Testpilot			Hannes Tschofen 
Harness		EAPR-Testequipment	Academy Test Equipment
Pilot's take off weight		70 kg	90 kg

Classification	C
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Test-criteria	Minimum take off weight	Evaluation	Maximum take off weight	Evaluation
1. Inflation / take-off - 4.1.1				
Rising behavior	Smooth, easy and constant rising	A	Smooth, easy and constant rising	A
Special take off technique required	No	A	No	A
2. Landing - 4.1.2				
Special landing technique required	No	A	No	A
3. Speeds in straight flight - 4.1.3				
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	25 km/h to 30 km/h	B
4. Control movement - 4.1.4				
Max. weight in flight up to 80kg		-		-
Max. weight in flight 80 to 100kg	Increasing 45cm - 60cm	C	Increasing 45cm - 60cm	C
Max. weight in flight greater than 100kg		-		-
5. Pitch stability exiting accelerated flight - 4.1.5				
Dive forward angle on exit	Dive forward less than 30°	A	Dive forward less than 30°	A
Collapse occurs	No	A	No	A
6. Pitch stability operating controls during accelerated flight - 4.1.6				
Collapse occurs	No	A	No	A
7. Roll stability and damping - 4.1.7				
Oscillations	Reducing	A	Reducing	A
8. Stability in gentle spirals - 4.1.8				
Tendency to return to straight flight	Spontaneous exit	A	Spontaneous exit	A
9. Behaviour in a steeply banked turn - 4.1.9				
Sink rate after two turns	More than 14m/s	B	More than 14m/s	B
10. Symmetric front collapse - 4.1.10				
Entry	Rocking back less than 45°	A	Rocking back less than 45°	A
Recovery	Spontaneous in less than 3 sec	A	Spontaneous in less than 3 sec	A
Dive forward angle on exit	0° - 30° Entering a turn of less than 90°	A	0° - 30° Entering a turn of less than 90°	A
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	0° - 30° Entering a turn of less than 90°	A	0° - 30° Entering a turn of less than 90°	A
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	15° - 45°	A	< 90°	Dive or roll angle	15° - 45°	A
Re-inflation behavior		Spontaneous re-inflation		A	Spontaneous re-inflation		A		
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° - 180°	Dive or roll angle	45° - 60°	C	90° - 180°	Dive or roll angle	45° - 60°	C
Re-inflation behavior		Spontaneous re-inflation		A	Spontaneous re-inflation		A		
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	accelerated, max 50% collapse	< 90°	Dive or roll angle	15° - 45°	A	< 90°	Dive or roll angle	15° - 45°	A
Re-inflation behavior		Spontaneous re-inflation		A	Spontaneous re-inflation		A		
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	accelerated, max 75% collapse	90° - 180°	Dive or roll angle	45° - 60°	C	90° - 180°	Dive or roll angle	45° - 60°	C
Re-inflation behavior		Spontaneous re-inflation		A	Spontaneous re-inflation		A		
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		
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	More than 50% of the symmetric control travel	A	More than 50% of the symmetric control travel	A					
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 90° to 180°	C	Stops spinning in 90° to 180°	C					
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	0° - 30°	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	Spontaneous in 3 to 5 sec	B	Spontaneous in 3 to 5 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	Spontaneous in 3 to 5 sec	A	Spontaneous in 3 to 5 sec	A					
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	720° to 1080°, spontaneous recovery	C	720° to 1080°, spontaneous recovery	C
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:				
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