


# FTR - Flight Test Report

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

Manufacturer	 Swing Flugsportgeräte GmbH An der Leiten 4 D-82290 Landsberied	Type testing No.	EAPR-GS-0559/16
		serial number	99140
Model	Apus RS - 18	Location	Gardasee
Comment			Gardasee



Rev. 2.3 - 26.11.2014  
 EAPR GmbH - Marktstr. 11  
 D-87730 Bad Grönenbach - Germany

Date of testing	11.10.2016	Minimum take off weight 70 kg	Maximum take off weight 110 kg
Testpilot	Mike Küng		Pascal Purin
Harness	EAPR-Testequipment		EAPR-Testequipment
Pilot's take off weight	70 kg		110 kg

Classification	C
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Test-criteria	Minimum take off weight	Evaluation	Maximum take off weight	Evaluation		
<b>1. Inflation / take-off - 4.4.1</b>						
Rising behavior	Smooth, easy and constant rising, no pilot correction required	A	Smooth, easy and constant rising, no pilot correction required	A		
Special take off technique required	No	A	No	A		
<b>2. Landing - 4.4.2</b>						
Special landing technique required	No	A	No	A		
<b>3. Speeds in straight flight - 4.4.3</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	25 km/h to 30 km/h	B		
<b>4. Control movement - 4.4.4</b>						
Max. weight in flight up to 80kg		-		-		
Max. weight in flight 80 to 100kg		-		-		
Max. weight in flight greater than 100kg	Increasing >65 cm	A	Increasing 50cm - 65cm	C		
<b>5. Pitch stability exiting accelerated flight - 4.4.5</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 - 4.4.6</b>						
Collapse occurs	No	A	No	A		
<b>7. Roll stability and damping - 4.4.7</b>						
Oscillations	Reducing	A	Reducing	A		
<b>8. Stability in gentle spirals - 4.4.8</b>						
Tendency to return to straight flight	Spontaneous exit	A	Spontaneous exit	A		
<b>9. Behaviour exiting a fully developed spiral dive - 4.4.9</b>						
Initial response of glider (first 180°)	No immediate reaction	B	No immediate reaction	B		
Tendency to return to straight flight	Spontaneous exit	A	Spontaneous exit	A		
Turn angle to recover normal flight	720° to 1080°, spontaneous recovery	B	1080° to 1440°, spontaneous recovery	C		
<b>10. Symmetric front collapse - 4.4.10</b>						
Folding lines used	No		No			
Entry	trim speed < 30%	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	30° - 60°   Keeping course	B
		Cascade occurs	No	A	No	A
Entry	trim speed > 30%	Rocking back less than 45°	A	Rocking back less than 45°	A	
		Recovery	Spontaneous in 3 to 5 sec	B	Spontaneous in less than 3 sec	A
		Dive forward angle on exit	0° - 30°   Entering a turn of less than 90°	A	30° - 60°   Keeping course	B
		Cascade occurs	No	A	No	A
Entry	accelerated > 50%	Rocking back less than 45°	A	Rocking back less than 45°	A	
		Recovery	Spontaneous in 3 to 5 sec	B	Spontaneous in less than 3 sec	A
		Dive forward angle on exit	30° - 60°   Entering a turn of less than 90°	B	30° - 60°   Keeping course	B
		Cascade occurs	No	A	No	A
<b>11. Exiting deep stall (parachutal stall) - 4.4.11</b>						
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	30° - 60°	B		
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 - 4.4.12									
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 - 4.4.13									
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) - 4.4.14									
Folding lines used	No				No				
Change of course until re-inflation	trim speed, max 50% collapse	< 90°	Dive or roll angle	15° - 45°	A	90° - 180°	Dive or roll angle	15° - 45°	B
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	15° - 45°	B	180° - 360°	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° - 180°	Dive or roll angle	15° - 45°	B	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 75% collapse	90° - 180°	Dive or roll angle	15° - 45°	B	180° - 360°	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 - 4.4.15									
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 - 4.4.16									
Spin occurs	No			A	No			A	
17. Low speed spin tendency - 4.4.17									
Spin occurs	No			A	No			A	
18. Recovery from a developed spin - 4.4.18									
Spin rotation angle after release	Stops spinning in less than 90°			A	Stops spinning in 90° to 180°			C	
Cascade occurs	No			A	No			A	
19. B-line-stall - 4.4.19									
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	30° - 60°			A	0° - 30°			A	
Cascade occurs	No			A	No			A	
20. Big ears - 4.4.20									
Entry procedure	Standard technique			A	Standard technique			A	
Behaviour during big ears	Stable flight			A	Stable flight			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° bis 30°			A	
21. Big Ears in accelerated flight - 4.4.21									
Entry procedure	Standard technique			A	Standard technique			A	
Behaviour during big ears	Stable flight			A	Stable flight			A	
Recovery	Spontaneous in 3 to 5 sec			A	Spontaneous in less than 3 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	
23. Alternative means of directional control - 4.4.22									
180° turn achievable in 20 sec	Yes			A	Yes			A	
Stall or spin occurs	No			A	No			A	
23. Any other flight procedure and/or configuration described in the user's manual - 4.4.23									
Procedure works as described				NA				NA	
Procedure suitable for novice pilots				NA				NA	
Cascade occurs				NA				NA	
24. Remarks of testpilot:									