FTR - Flight Test Report

Manufacturer	Swing Flugsportgeräte GmbH An der Leiten 4 D-82290 Landsberied	**Type testing No.**	**EAPR-GS-0563/16**
		serial number	**296-99127**
Model	**Apus RS 14**	**Location**	**Monte Baldo**
Comment			**Gardasee**

Messen | Prüfen | Bewerten

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

Date of testing 28.10.2016	**Minimum take off weight 55 kg**		**Maximum take off weight 90 kg**	
Testpilot			**Mike Küng**	
Harness	**EAPR Testequipment**		**EAPR-Testequipment**	
Pilot's take off weight	**65 kg**		**90 kg**	

Classification	**D**

Test-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, no pilot correction required	A	Smooth, easy and constant rising, no pilot correction required	A
Special take off technique required		No	A	No	A
2. Landing - 4.4.2					
Special landing technique required		No	A	No	A
3. Speeds in straight flight - 4.4.3					
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		25 km/h to 30 km/h	B	25 km/h to 30 km/h	B
4. Control movement - 4.4.4					
Max. weight in flight up to 80kg		Increasing 40cm - 55cm	C		-
Max. weight in flight 80 to 100kg			-	Increasing 35cm - 45cm	D
Max. weight in flight greater than 100kg			-		-
5. Pitch stability exiting accelerated flight - 4.4.5					
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 - 4.4.6					
Collapse occurs		No	A	No	A
7. Roll stability and damping - 4.4.7					
Oscillations		Reducing	A	Reducing	A
8. Stability in gentle spirals - 4.4.8					
Tendency to return to straight flight		Spontaneous exit	A	Spontaneous exit	A
9. Behaviour exiting a fully developed spiral dive - 4.4.9					
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
10. Symmetric front collapse - 4.4.10					
Folding lines used		No		No	
Entry	trim speed - 30%	Rocking back less than 45°	A	Rocking back less than 45°	A
Recovery	trim speed - 30%	Spontaneous in less than 3 sec	A	Spontaneous in less than 3 sec	A
Dive forward angle on exit	trim speed - 30%	30° - 60° Keeping course	B	30° - 60° Entering a turn of less than 90°	B
Cascade occurs	trim speed - 30%	No	A	No	A
Entry	trim speed > 50%	Rocking back less than 45°	A	Rocking back less than 45°	A
Recovery	trim speed > 50%	Spontaneous in less than 3 sec	A	Spontaneous in less than 3 sec	A
Dive forward angle on exit	trim speed > 50%	30° - 60° Keeping course	B	30° - 60° Entering a turn of less than 90°	B
Cascade occurs	trim speed > 50%	No	A	No	A
Entry	accelerated > 50%	Rocking back less than 45°	A	Rocking back less than 45°	A
Recovery	accelerated > 50%	Spontaneous in less than 3 sec	A	Spontaneous in less than 3 sec	A
Dive forward angle on exit	accelerated > 50%	30° - 60° Entering a turn of less than 90°	B	30° - 60° Entering a turn of less than 90°	B
Cascade occurs	accelerated > 50%	No	A	No	A
11. Exiting deep stall (parachutal stall) - 4.4.11					
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		30° - 60°	B	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	60° - 90°			C
Collapse		No collapse			A	No collapse			A
Cascade occurs (other than collapse)		No			A	No			A
Rocking backward		Greater than 45°			C	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	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	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	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 75% collapse	90° - 180°	Dive or roll angle	60° - 90°	D	180° - 360°	Dive or roll angle	60° - 90°	D
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		25% to 50% of the symmetric control travel			C	25% to 50% of the symmetric control travel			C
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 90° to 180°			C	Stops spinning in less than 90°			A
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	60° - 90°			C
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 less than 3 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 accelarator 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 descibed					NA				NA
Procedure suitable for novice pilots					NA				NA
Cascade occurs					NA				NA
24. Remarks of testpilot:									