FTR - Flight Test Report

Manufacturer	ICARO PARAGLIDERS Hochriess traße 1 D-83126 Flints bach	**Type testing No.**	**EAPR-GS-0544/16**
		serial number	
Model	**Gravis L**	**Location**	**Schruns**
Comment			**Gerlitzen, Ossiacher See**

EAPR Messen | Prüfen | Bewerten

Rev. 2.3 - 26.11.2014

EAPR GmbH - Marktstr. 11
D-87730 Bad Grönenbach - Germany

Date of testing 22.08.2016	**Minimum take off weight 90 kg**		**Maximum take off weight 115 kg**	
Testpilot	**Hannes Tschofen**		**Anselm Rauh**	
Harness	**EAPR Equipment**		**EAPR schwer**	
Pilot's take off weight	**115 kg**		**115 kg**	

Classification	**B**

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	Less than 25 km/h	A	Less than 25 km/h	A
4. Control movement - 4.4.4				
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 >65 cm	A
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	720° to 1080°, spontaneous recovery	B
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%)	0° - 30° Keeping course	A	0° - 30° Keeping course	A
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%)	0° - 30° Entering a turn of less than 90°	A	0° - 30° Keeping course	A
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%)	0° - 30° Entering a turn of less than 90°	A	0° - 30° Entering a turn of less than 90°	A
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	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 - 4.4.12									
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		0° - 30°			A	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	0° - 15°	A	< 90°	Dive or roll angle	15° - 45°	A
Re-inflation behavior	trim speed, max 50% collapse	Spontaneous re-inflation			A	Spontaneous re-inflation			A
Total change of course	trim speed, max 50% collapse	Less than 360°			A	Less than 360°			A
Collapse on the opposite side occurs	trim speed, max 50% collapse	No			A	No			A
Twist occurs	trim speed, max 50% collapse	No			A	No			A
Cascade occurs	trim speed, max 50% collapse	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	trim speed, max 75% collapse	Spontaneous re-inflation			A	Spontaneous re-inflation			A
Total change of course	trim speed, max 75% collapse	Less than 360°			A	Less than 360°			A
Collapse on the opposite side occurs	trim speed, max 75% collapse	No			A	No			A
Twist occurs	trim speed, max 75% collapse	No			A	No			A
Cascade occurs	trim speed, max 75% collapse	No			A	No			A
Change of course until re-inflation	accelerated, max 50% collapse	< 90°	Dive or roll angle	0° - 15°	A	< 90°	Dive or roll angle	15° - 45°	A
Re-inflation behavior	accelerated, max 50% collapse	Spontaneous re-inflation			A	Spontaneous re-inflation			A
Total change of course	accelerated, max 50% collapse	Less than 360°			A	Less than 360°			A
Collapse on the opposite side occurs	accelerated, max 50% collapse	No			A	No			A
Twist occurs	accelerated, max 50% collapse	No			A	No			A
Cascade occurs	accelerated, max 50% collapse	No			A	No			A
Change of course until re-inflation	accelerated, max 75% collapse	90° - 180°	Dive or roll angle	15° - 45°	B	90° - 180°	Dive or roll angle	15° - 45°	B
Re-inflation behavior	accelerated, max 75% collapse	Spontaneous re-inflation			A	Spontaneous re-inflation			A
Total change of course	accelerated, max 75% collapse	Less than 360°			A	Less than 360°			A
Collapse on the opposite side occurs	accelerated, max 75% collapse	No			A	No			A
Twist occurs	accelerated, max 75% collapse	No			A	No			A
Cascade occurs	accelerated, max 75% collapse	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 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		0° - 30°			A	0° - 30°			A
Cascade occurs		No			A	No			A
20. Big ears - 4.4.20									
Entry procedure		Special device required			A	Special device required			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		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 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:									