FTR - Flight Test Report

Manufacturer	3 S	Type testing No.	EAPR-GS-0566/16		
	Hochriess traße 1 D-83126 Flints bach	serial number			
Model	Gravis M	Landin	Schruns		
Comment		Location	Schruns		



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 80 kg			Maximum take off weight 105 kg			
Testpilot		Hannes Tschofen			Pascal Purin			
Harness		EAPR-Equipment			EAPR-Equipment			
Pilot's take off weigl	ht	80	kg		105	kg	2	





Special take off technique required No A 2. Landing - 4.4.2 Special landing technique required No A 3. Speeds in straight flight - 4.4.3 Trim speed more than 30km/h Yes A Speed range using the controls larger than 10km/h Yes A Minimum speed 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 5. Pitch stability exiting accelerated flight - 4.4.5 Dive forward angle on exit Dive forward less than 30° A	No
Rising behavior no pilot correction required A Special take off technique required No A 2. Landing - 4.4.2 Special landing technique required No A 3. Speeds in straight flight - 4.4.3 Trim speed more than 30km/h Yes A Speed range using the controls larger than 10km/h Yes A Minimum speed Less than 25 km/h A 4. Control movement - 4.4.4 Max. weight in flight up to 80kg	No
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4. Control movement - 4.4.4 Max. weight in flight up to 80kg	-
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Dive forward angle on exit Dive forward less than 30° A Collapse occurs No A	
Collapse occurs No A	
	Dive forward less than 30° A
6. Pitch stability operating controls during accelerated flight - 4.4.6	No A
, ,gg	
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 Rocking back less than 45° A	Rocking back less than 45° A
Recovery Spontaneous in less than 3 sec	Spontaneous in less than 3 sec A
	0° - 30° Keeping course A
Cascade occurs No A	No A
Entry Rocking back less than 45° A Sportageous in less than 3 cec	Rocking back less than 45° A
Sportial edus in less triair 3 sec	Spontaneous in less than 3 sec
Dive forward arigin of exit	0° - 30° Keeping course A
Cascade occurs - No A	No A
	Rocking back less than 45° A
Recovery Spontaneous in less than 3 sec A	Spontaneous in less than 3 sec A
	0° - 30° Keeping course 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	Constanting in lang them 2 and
	Spontaneous in less than 3 sec A
	0° - 30° A
Cascade occurs No A	

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12. High angle of attack recovery - 4.4.12									
Recovery		Spontaneous in less than 3 sec A			Α	Spontaneous in		А	
Cascade occurs		No		A	No			А	
13. Recovery from a developed full stall - 4.4.13		140							
Dive forward angle on exit		0° - 30°		A	0° - 30°			A	
Collapse Cascade occurs (other than collapse)		No collapse No			A A	No collapse No			A
Rocking backward		Less than 45°			A	Less than 45°			A
Line tension		Most lines tight			А	Most lines tight			А
14. Asymmetric collapse (trim speed) - 4.4.14		Lau				Lvi			
Folding lines used		No			No	I			
Change of course until re-inflation	bse	< 90°	Dive or roll angle	0° - 15°	Α	< 90°	Dive or roll angle	0° - 15°	Α
Re-inflation behavior	trim speed, max 50% collapse	Spontaneous re-inflation			Α	Spontaneous re	Α		
Total change of course	trim speed x 50% colla	Less than 360°			А	Less than 360°			Α
Collapse on the opposite side occurs	ax 5	No No		A	No No			A	
Twist occurs Cascade occurs	-	No No		A	No No			A	
Change of course until re-inflation		< 90°	Dive or roll angle	15° - 45°	Α	< 90°	Dive or roll angle	15° - 45°	Α
	, apse								
Re-inflation behavior	peed soll	Spontaneous re	-inflation		Α	Spontaneous re	-inflation		Α
Total change of course	trim speed <75% colla	Less than 360°		A	Less than 360°			A	
Collapse on the opposite side occurs Twist occurs	trim speed, max 75% collapse	No No		A	No No			A	
Cascade occurs		No		A	No			A	
Change of course until re-inflation		< 90°	Dive or roll angle	15° - 45°	А	< 90°	Dive or roll angle	15° - 45°	А
Change of course until re-inflation	, pse	< 90.	Dive or roir angle	10" - 45"	A	< 90.	DIVE OF FOIL ANGIE	10" - 45"	А
Re-inflation behavior	accelerated, max 50% collapse	Spontaneous re	-inflation		Α	Spontaneous re	-inflation		Α
Total change of course	celer 50%	Less than 360°			А	Less than 360°			Α
Collapse on the opposite side occurs Twist occurs	ao nax 5	No No			A	No No			A
Cascade occurs	_	No			A	No			A
Change of course until re-inflation		90° - 180°	Dive or roll angle	15° - 45°	В	90° - 180°	Dive or roll angle	15° - 45°	В
	accelerated, max 75% collapse		1						
Re-inflation behavior	arate coll	Spontaneous re	-inflation		Α	Spontaneous re	-inflation		Α
Total change of course	accelerated x 75% colla	Less than 360°			A	Less than 360°			A
Collapse on the opposite side occurs Twist occurs	шах	No No			A	No No			A
Cascade occurs		No			A	No			A
15. Directional control with a maintained asym	metric co	llapse - 4.4.15							
Able to keep course straight		Yes			А	Yes			Α
180° turn away from the collapsed side possible in	0° turn away from the collapsed side possible in 10 sec		Yes			Yes			Α
Amount of control range between turn and stall or	spin	More than 50% of the symmetric control travel			Α	More than 50%	Α		
-		1			,,	1			, ,
16. Trim speed spin tendency - 4.4.16 Spin occurs		No			A	No			l A
17. Low speed spin tendency - 4.4.17		140			1.0				
Spin occurs		No		Α	No			А	
18. Recovery from a developed spin - 4.4.18									
Spin rotation angle after release		Stops spinning in less than 90°		Α	Stops spinning in less than 90°			Α	
Cascade occurs		No		A	No			A	
19. B-line-stall - 4.4.19		140			140				
Change of course before release		Changing course less than 45°		А	Changing course less than 45°			А	
Behaviour before release		Remains stable with straight span		Α	Remains stable	with straight span		Α	
		- '							
Recovery		Spontaneous in less than 3 sec		Α	Spontaneous in less than 3 sec			Α	
Dive forward angle on exit Cascade occurs		0° - 30° No		A	0° - 30°			A A	
20. Big ears - 4.4.20		. 10			А	. 10			A
		Consist de la	roquiro -		_	Consist de la	roquiro d		
Entry procedure		Special device required		A	Special device required			A	
Behaviour during big ears		Stable flight		A	Stable flight			A	
		Spontaneous in less than 3 sec		Α	Spontaneous in less than 3 sec			Α	
Recovery			less than 3 sec						Α
Recovery Dive forward angle on exit		Spontaneous in	less than 3 sec		А	0° bis 30°			
Recovery			less than 3 sec		A	0° bis 30°			Α
Recovery Dive forward angle on exit					A	0° bis 30° Special device r	required		A
Recovery Dive forward angle on exit 21. Big Ears in accelerated flight - 4.4.21		0° - 30°					required		
Recovery Dive forward angle on exit 21. Big Ears in accelerated flight - 4.4.21 Entry procedure		0° - 30° Special device i	required		А	Special device r			А
Recovery Dive forward angle on exit 21. Big Ears in accelerated flight - 4.4.21 Entry procedure Behaviour during big ears		0° - 30° Special device i	required		A A	Special device r			A A
Recovery Dive forward angle on exit 21. Big Ears in accelerated flight - 4.4.21 Entry procedure Behaviour during big ears Recovery Dive forward angle on exit Behaviour immediately after releasing the accelerations.	ator while	Special device of Stable flight Spontaneous in 0° - 30°	required		A A A	Special device r Stable flight Spontaneous in 0° bis 30°			A A A
Recovery Dive forward angle on exit 21. Big Ears in accelerated flight -4.4.21 Entry procedure Behaviour during big ears Recovery Dive forward angle on exit Behaviour immediately after releasing the accelar maintaining big ears		Special device i Stable flight Spontaneous in	required		A A A	Special device r Stable flight Spontaneous in			A A A
Recovery Dive forward angle on exit 21. Big Ears in accelerated flight - 4.4.21 Entry procedure Behaviour during big ears Recovery Dive forward angle on exit Behaviour immediately after releasing the accelar maintaining big ears 23. Alternative means of directional control - 4.		Special device of Stable flight Spontaneous in 0° - 30° Stable flight	required		A A A A	Special device r Stable flight Spontaneous in 0° bis 30° Stable flight			A A A
Recovery Dive forward angle on exit 21. Big Ears in accelerated flight -4.4.21 Entry procedure Behaviour during big ears Recovery Dive forward angle on exit Behaviour immediately after releasing the accelar maintaining big ears		Special device of Stable flight Spontaneous in 0° - 30°	required		A A A	Special device r Stable flight Spontaneous in 0° bis 30°			A A A
Recovery Dive forward angle on exit 21. Big Ears in accelerated flight - 4.4.21 Entry procedure Behaviour during big ears Recovery Dive forward angle on exit Behaviour immediately after releasing the accelar maintaining big ears 23. Alternative means of directional control - 4 180° turn achievable in 20 sec Stall or spin occurs	4.4.22	0° - 30° Special device t Stable flight Spontaneous in 0° - 30° Stable flight Yes	required 3 to 5 sec		A A A A	Special device r Stable flight Spontaneous in 0° bis 30° Stable flight			A A A A
Recovery Dive forward angle on exit 21. Big Ears in accelerated flight - 4.4.21 Entry procedure Behaviour during big ears Recovery Dive forward angle on exit Behaviour immediately after releasing the accelar maintaining big ears 23. Alternative means of directional control - 4 180° turn achievable in 20 sec Stall or spin occurs 23. Any other flight procedure and/or configure	4.4.22	0° - 30° Special device t Stable flight Spontaneous in 0° - 30° Stable flight Yes	required 3 to 5 sec	223	A A A A A	Special device of Stable flight Spontaneous in 0° bis 30° Stable flight			A A A A A
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Recovery Dive forward angle on exit 21. Big Ears in accelerated flight - 4.4.21 Entry procedure Behaviour during big ears Recovery Dive forward angle on exit Behaviour immediately after releasing the accelar maintaining big ears 23. Alternative means of directional control - 4 180° turn achievable in 20 sec Stall or spin occurs 23. Any other flight procedure and/or configure Procedure works as descibed	4.4.22	0° - 30° Special device t Stable flight Spontaneous in 0° - 30° Stable flight Yes	required 3 to 5 sec	23	A A A A A	Special device of Stable flight Spontaneous in 0° bis 30° Stable flight			A A A A A

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