




# FTR - Flight Test Report

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

Manufacturer	 Hochtreesstraße 1 D-89126 Flimsbach	Type testing No.	EAPR-GS-0566/16
		serial number	
Model	Gravis M	Location	Schruns
Comment			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 weight		80 kg		105 kg	

Classification	B
----------------	---



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	Less than 25 km/h	A		
<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 >65 cm	A		
<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	720° to 1080°, spontaneous recovery	B		
<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°   Keeping course	A	0° - 30°   Keeping course	A
		Cascade occurs	No	A	No	A
Entry	trim speed > 50%	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°   Keeping course	A	0° - 30°   Keeping course	A
		Cascade occurs	No	A	No	A
Entry	accelerated > 50%	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°   Keeping course	A	0° - 30°   Keeping course	A
		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	0° - 30°	A		
Change of course	Changing course less than 45°	A	Changing course less than 45°	A		
Cascade occurs	No	A	No	A		

<b>12. High angle of attack recovery - 4.4.12</b>									
Recovery	Spontaneous in less than 3 sec			A	Spontaneous in less than 3 sec			A	
Cascade occurs	No			A	No			A	
<b>13. Recovery from a developed full stall - 4.4.13</b>									
Dive forward angle on exit	0° - 30°			A	0° - 30°			A	
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	
<b>14. Asymmetric collapse (trim speed) - 4.4.14</b>									
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	0° - 15°	A
		Spontaneous re-inflation			A	Spontaneous re-inflation			A
Re-inflation behavior	trim speed, max 50% collapse	Less than 360°			A	Less than 360°			A
Total change of course		No			A	No			A
Collapse on the opposite side occurs	trim speed, max 75% collapse	No			A	No			A
Twist occurs		No			A	No			A
Cascade occurs	trim speed, max 75% collapse	No			A	No			A
Change of course until re-inflation		< 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		Less than 360°			A	Less than 360°			A
Collapse on the opposite side occurs	accelerated, max 50% collapse	No			A	No			A
Twist occurs		No			A	No			A
Cascade occurs	accelerated, max 50% collapse	No			A	No			A
Change of course until re-inflation		< 90°	Dive or roll angle	15° - 45°	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		Less than 360°			A	Less than 360°			A
Collapse on the opposite side occurs	accelerated, max 75% collapse	No			A	No			A
Twist occurs		No			A	No			A
Cascade occurs	accelerated, max 75% collapse	No			A	No			A
Change of course until re-inflation		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		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
<b>15. Directional control with a maintained asymmetric collapse - 4.4.15</b>									
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	
<b>16. Trim speed spin tendency - 4.4.16</b>									
Spin occurs	No			A	No			A	
<b>17. Low speed spin tendency - 4.4.17</b>									
Spin occurs	No			A	No			A	
<b>18. Recovery from a developed spin - 4.4.18</b>									
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	
<b>19. B-line-stall - 4.4.19</b>									
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	
<b>20. Big ears - 4.4.20</b>									
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	
<b>21. Big Ears in accelerated flight - 4.4.21</b>									
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	
<b>23. Alternative means of directional control - 4.4.22</b>									
180° turn achievable in 20 sec	Yes			A	Yes			A	
Stall or spin occurs	No			A	No			A	
<b>23. Any other flight procedure and/or configuration described in the user's manual - 4.4.23</b>									
Procedure works as described				NA				NA	
Procedure suitable for novice pilots				NA				NA	
Cascade occurs				NA				NA	
<b>24. Remarks of testpilot:</b>									