Manufacturer		Type testing No.	EAPR-GS-7437/11	A A
		Date of testing	21.06.2011	AEAPRIL
Model	Bion 32	Location	Achensee	LBA Musterprüfstelle Gleitschirm - Motorschirm - Fallschirm

EAPR e.V - Marktstr. 11 - D-87730 Bad Grönenbach - Germany

	Minimum take off we	eight	Maximum take off weight		
Testpilot	Mike Küng	A	Hannes Tschofen	8	
Harness	Academy-Equipment	120	Academy Test Equipment		
Pilot's take off weight	90 kg		200 kg		

Classification

B

est-criteria		Minimum take off weight	Evaluation	Maximum take off weight	Evaluation
1. Inflation / take-off - 4.1.1					
Rising behavior		Smooth, easy and constant rising A Smooth, easy and constant rising		Smooth, easy and constant rising	А
Special take off technique required		No	А	No	A
2. Landing - 4.1.2					
Special landing technique required		No	А	No	A
3. Speeds in straight flight - 4.1.3					
Trim speed more than 30km/h Y		Yes	А	Yes	Α
Speed range using the controls larger than 10km/h		Yes	А	Yes	А
Minimum speed		Less than 25 km/h	А	Less than 25 km/h	Α
4. Control movement - 4.1.4					
Max. weight in flight up to 80kg			-		-
Max. weight in flight 80 to 100kg		Increasing > 60cm	А		-
Max. weight in flight greater than 100kg			-	Increasing >65 cm	А
5. Pitch stability exiting accelerated flight - 4.1.	5				·
Dive forward angle on exit		Dive forward less than 30°	А	Dive forward less than 30°	A
Collapse occurs		No	А	No	Α
6. Pitch stability operating controls during acce	elerated fl	ght - 4.1.6			
Collapse occurs		No	А	No	Α
7. Roll stability and damping - 4.1.7					
Oscillations		Reducing	A	Reducing	A
8. Stability in gentle spirals - 4.1.8					
Tendency to return to straight flight		Spontaneous exit	A	Spontaneous exit	A
9. Behaviour in a steeply banked turn - 4.1.9					
Sink rate after two turns		Up to 12m/s	A	More than 14m/s	В
10. Symmetric front collapse - 4.1.10					
Entry	-	Rocking back less than 45°	A	Rocking back less than 45°	A
Recovery	trim speed	Spontaneous in less than 3 sec	А	Spontaneous in less than 3 sec	А
Dive forward angle on exit	Ë	0° - 30° Keeping course	A	0° - 30° Keeping course	A
Cascade occurs	t	No	А	No	A
Entry	pe	Rocking back less than 45°	A	Rocking back less than 45°	A
Recovery	accelerated	Spontaneous in less than 3 sec	А	Spontaneous in less than 3 sec	А
Dive forward angle on exit	acce	0° - 30° Keeping course	А	0° - 30° Keeping course	A
Cascade occurs	10	No	A	No	A

11. Exiting deep stall (parachutal stall) - 4.1.11									
Deep stall achieved		Yes			1	Yes			
· · ·				•				•	
Recovery		Spontaneous in less than 3 sec			A	Spontaneous in less than 3 sec 0° - 30°			A
Dive forward angle on exit		0° - 30°			A				A
Change of course Cascade occurs		Changing course No	e less than 45°		A	Changing course No	e less than 45°		A A
12. High angle of attack recovery - 4.1.12		110				110			
					•				•
Recovery		Spontaneous in less than 3 sec		A	Spontaneous in	less than 3 sec		A	
Cascade occurs		No			А	No			A
13. Recovery from a developed full stall - 4.1.1	3	1				-			
Dive forward angle on exit Collapse		0° - 30° No collapse			A	0° - 30° No collapse			A
Collapse Cascade occurs (other than collapse)		No collapse			A	No			A
Rocking backward		Less than 45°		A	Less than 45°		A		
Line tension		Most lines tight			А	Most lines tight			A
14. Asymmetric collapse (trim speed) - 4.1.14	-								
Change of course until re-inflation	a,	< 90°	Dive or roll angle	15° - 45°	А	< 90°	Dive or roll angle	0° - 15°	А
	d, apse								
Re-inflation behavior	trim speed, max 50% collapse	Spontaneous re-	inflation		A	Spontaneous re-	inflation		A
Total change of course	trim s x 50%	Less than 360°			А	Less than 360°			А
Collapse on the opposite side occurs	tri ax {	No			A	No			A
Twist occurs Cascade occurs	E	No No			A	No No			A
			Dire	00 450			Dive	159 450	
Change of course until re-inflation	ose	90° - 180°	Dive or roll angle	0° - 15°	A	< 90°	Dive or roll angle	15° - 45°	A
Re-inflation behavior	trim speed, max 75% collapse	Spontaneous re-	inflation		А	Spontaneous re-	inflation		А
Total change of course	i speed, % colla	Less than 360°			A	Less than 360°			A
Collapse on the opposite side occurs	trim x 75	No			A	No			A
Twist occurs	may	No			А	No			A
Cascade occurs		No			А	No			A
Change of course until re-inflation		90° - 180°	Dive or roll angle	0° - 15°	А	< 90°	Dive or roll angle	0° - 15°	А
	accelerated, max 50% collapse	30 - 100	Dive of foil angle	0 - 13	^	< 30	Dive of foil aligie	0 - 15	^
Re-inflation behavior	ated	Spontaneous re-	inflation		А	Spontaneous re-	inflation		А
Total change of course	eler: 0% o	Less than 360°			A	Less than 360°			A
Collapse on the opposite side occurs	acc x 5(No			A	No			A
Twist occurs	ma	No			А	No			А
Cascade occurs		No			A	No			A
Change of course until re-inflation	Se	90° - 180°	Dive or roll angle	15° - 45°	В	90° - 180°	Dive or roll angle	15° - 45°	В
Re-inflation behavior	accelerated, max 75% collapse	Spontaneous re-	inflation		А	Spontaneous re-	inflation		А
Total change of course	eler; 5% (Less than 360°			A	Less than 360°			A
Collapse on the opposite side occurs	acc ax 7	No			А	No			Α
Twist occurs	ma	No No			A	No No			A
Cascade occurs 15. Directional control with a maintained asymmetry	notrio col				A	INO			A
Able to keep course straight		Yes			A	Yes			A
180° turn away from the collapsed side possible in	10					Yes			
Amount of control range between turn and stall or spin		Yes		A			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 - 4.1.16		[1			
Spin occurs		No			А	No			A
17. Low speed spin tendency - 4.1.17		L NL				L M.			
Spin occurs		No			A	No			A
18. Recovery from a developed spin - 4.1.18		T				1			
Spin rotation angle after release		Stops spinning in less than 90°			А	Stops spinning in	n less than 90°		А
Cascade occurs		No			A	No			A
19. B-line-stall - 4.1.19							less than 15°		A
19. B-line-stall - 4.1.19 Change of course before release		Changing course	less than 45°		A	Changing course	1633 than 45		
			e less than 45° with straight span		A A		with straight span		A
Change of course before release			with straight span				with straight span		A A
Change of course before release Behaviour before release Recovery		Remains stable v	with straight span		A A	Remains stable v	with straight span		A
Change of course before release Behaviour before release		Remains stable s	with straight span		A	Remains stable v Spontaneous in l	with straight span		
Change of course before release Behaviour before release Recovery Dive forward angle on exit		Remains stable of Spontaneous in 1	with straight span		A A A	Remains stable v Spontaneous in 1 0° - 30°	with straight span		A
Change of course before release Behaviour before release Recovery Dive forward angle on exit Cascade occurs 20. Big ears - 4.1.20		Remains stable v Spontaneous in l 0° - 30° No	with straight span		A A A A	Remains stable v Spontaneous in 1 0° - 30° No	with straight span		A A A
Change of course before release Behaviour before release Recovery Dive forward angle on exit Cascade occurs 20. Big ears - 4.1.20 Entry procedure		Remains stable v Spontaneous in 1 0° - 30° No Special device re	with straight span		A A A A A	Remains stable v Spontaneous in 1 0° - 30° No	with straight span		A A A A
Change of course before release Behaviour before release Recovery Dive forward angle on exit Cascade occurs 20. Big ears - 4.1.20 Entry procedure Behaviour during big ears		Remains stable of Spontaneous in I 0° - 30° No Special device re Stable flight	with straight span ess than 3 sec equired		A A A A A A	Remains stable v Spontaneous in I 0° - 30° No Special device re Stable flight	with straight span		A A A A
Change of course before release Behaviour before release Recovery Dive forward angle on exit Cascade occurs 20. Big ears - 4.1.20 Entry procedure		Remains stable v Spontaneous in 1 0° - 30° No Special device re	with straight span ess than 3 sec equired		A A A A A	Remains stable v Spontaneous in 1 0° - 30° No	with straight span		A A A A
Change of course before release Behaviour before release Recovery Dive forward angle on exit Cascade occurs 20. Big ears - 4.1.20 Entry procedure Behaviour during big ears		Remains stable of Spontaneous in I 0° - 30° No Special device re Stable flight	with straight span ess than 3 sec equired		A A A A A A	Remains stable v Spontaneous in I 0° - 30° No Special device re Stable flight	with straight span		A A A A
Change of course before release Behaviour before release Recovery Dive forward angle on exit Cascade occurs 20. Big ears - 4.1.20 Entry procedure Behaviour during big ears Recovery		Remains stable of Spontaneous in I 0° - 30° No Special device re Stable flight Spontaneous in I	with straight span ess than 3 sec equired		A A A A A A	Remains stable v Spontaneous in I 0° - 30° No Special device re Stable flight Spontaneous in I	with straight span		A A A A A A
Change of course before release Behaviour before release Recovery Dive forward angle on exit Cascade occurs 20. Big ears - 4.1.20 Entry procedure Behaviour during big ears Recovery Dive forward angle on exit 21. Big Ears in accelerated flight - 4.1.21		Remains stable of Spontaneous in I 0° - 30° No Special device re Stable flight Spontaneous in I 0° - 30°	with straight span ess than 3 sec equired ess than 3 sec		A A A A A A A A	Remains stable of Spontaneous in I 0° - 30° No Special device re Stable flight Spontaneous in I 0° bis 30°	with straight span less than 3 sec equired less than 3 sec		A A A A A A A A
Change of course before release Behaviour before release Recovery Dive forward angle on exit Cascade occurs 20. Big ears - 4.1.20 Entry procedure Behaviour during big ears Recovery Dive forward angle on exit 21. Big Ears in accelerated flight - 4.1.21 Entry procedure		Remains stable of Spontaneous in I 0° - 30° No Special device re Stable flight Spontaneous in I 0° - 30° Special device re	with straight span ess than 3 sec equired ess than 3 sec		A A A A A A A A A	Remains stable of Spontaneous in I 0° - 30° No Special device re Stable flight Spontaneous in I 0° bis 30° Special device re	with straight span less than 3 sec equired less than 3 sec		A A A A A A A A
Change of course before release Behaviour before release Recovery Dive forward angle on exit Cascade occurs 20. Big ears - 4.1.20 Entry procedure Behaviour during big ears Recovery Dive forward angle on exit 21. Big Ears in accelerated flight - 4.1.21 Entry procedure Behaviour during big ears		Remains stable of Spontaneous in I 0° - 30° No Special device re Stable flight Spontaneous in I 0° - 30° Special device re Stable flight	with straight span ess than 3 sec equired ess than 3 sec equired		A A A A A A A A A A	Remains stable v Spontaneous in I 0° - 30° No Special device re Stable flight Spontaneous in I 0° bis 30° Special device re Stable flight	with straight span		A A A A A A A A A A
Change of course before release Behaviour before release Recovery Dive forward angle on exit Cascade occurs 20. Big ears - 4.1.20 Entry procedure Behaviour during big ears Recovery Dive forward angle on exit 21. Big Ears in accelerated flight - 4.1.21 Entry procedure		Remains stable of Spontaneous in I 0° - 30° No Special device re Stable flight Spontaneous in I 0° - 30° Special device re	with straight span ess than 3 sec equired ess than 3 sec equired		A A A A A A A A A	Remains stable of Spontaneous in I 0° - 30° No Special device re Stable flight Spontaneous in I 0° bis 30° Special device re	with straight span		A A A A A A A A
Change of course before release Behaviour before release Recovery Dive forward angle on exit Cascade occurs 20. Big ears - 4.1.20 Entry procedure Behaviour during big ears Recovery Dive forward angle on exit 21. Big Ears in accelerated flight - 4.1.21 Entry procedure Behaviour during big ears Recovery Dive forward angle on exit		Remains stable of Spontaneous in I 0° - 30° No Special device re Stable flight Spontaneous in I 0° - 30° Special device re Stable flight	with straight span ess than 3 sec equired ess than 3 sec equired		A A A A A A A A A A	Remains stable v Spontaneous in I 0° - 30° No Special device re Stable flight Spontaneous in I 0° bis 30° Special device re Stable flight	with straight span		A A A A A A A A A A
Change of course before release Behaviour before release Recovery Dive forward angle on exit Cascade occurs 20. Big ears - 4.1.20 Entry procedure Behaviour during big ears Recovery Dive forward angle on exit 21. Big Ears in accelerated flight - 4.1.21 Entry procedure Behaviour during big ears Recovery	tor while	Remains stable of Spontaneous in 1 0° - 30° No Special device re Stable flight Spontaneous in 1 0° - 30° Special device re Stable flight Spontaneous in 1	with straight span ess than 3 sec equired ess than 3 sec equired		A A A A A A A A A A A A	Remains stable v Spontaneous in I 0° - 30° No Special device re Stable flight Spontaneous in I 0° bis 30° Special device re Stable flight Spontaneous in I	with straight span		A A A A A A A A A A A A

22. Behaviour exiting a steep spiral - 4.1.22				
Tendency to return to straight flight	Spontaneous exit	А	Spontaneous exit	A
Turn angle to recover normal flight	Less than 720°, spontaneous recovery	А	Less than 720°, spontaneous recovery	А
23. Alternative means of directional control - 4	.1.23			
180° turn achievable in 20 sec	Yes	А	Yes	А
Stall or spin occurs	No	A	No	A
24. Any other flight procedure and/or configura	ation described in the user's manual - 4.1.24			
Procedure works as descibed		NA		NA
Procedure suitable for novice pilots		NA		NA
Cascade occurs		NA		NA
25. Remarks of testpilot:				
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