| Manufacturer | \sim | Type testing No. | EAPR-GS-7512/12 | |
|--------------|-----------|------------------|-----------------|--|
| | | Date of testing | 14.01.2011 | AEAPR |
| Model | ION 2 XXS | Location | Schrunz | LBA Musterprüfstelle Gleitschirm - Motorschirm - Fallschirr |

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

| | Minimum take off weight | Maximum take off weight |
|-------------------------|-------------------------|-------------------------|
| Testpilot | Daniela Martin | Hannes Tschofen |
| Harness | EAPR Equipment | Academy light |
| Pilot's take off weight | 55 kg | 75 kg |

Classification

В



| Test-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 | | А | Smooth, easy and constant rising | | А | |
| Special take off technique required | | No | | A | No | | A | |
| 2. Landing - 4.1.2 | | | | | | | | |
| Special landing technique required | No | | A | No | | A | | |
| 3. Speeds in straight flight - 4.1.3 | | • | | | | | | |
| Trim speed more than 30km/h Yes | | | Yes A | | | Yes | | |
| Speed range using the controls larger than 10km/h | | Yes | | А | Yes | | А | |
| Minimum speed | | Less than 25 kr | n/h | A | Less than 25 km/ | A | | |
| 4. Control movement - 4.1.4 | | | | | | | | |
| Max. weight in flight up to 80kg | | Increasing | > 55cm | А | Increasing | > 55cm | А | |
| Max. weight in flight 80 to 100kg | | | | - | | | - | |
| Max. weight in flight greater than 100kg | | | | - | | | - | |
| 5. Pitch stability exiting accelerated flight - 4.1 | .5 | • | | | | | | |
| Dive forward less than 30° | | | A | Dive forward less | than 30° | А | | |
| Collapse occurs | | No | | А | No | | А | |
| 6. Pitch stability operating controls during acc | elerated f | light - 4.1.6 | | | | | | |
| Collapse occurs | | No | | А | No | | А | |
| 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 e | xit | A | Spontaneous exit | t | A | | |
| 9. Behaviour in a steeply banked turn - 4.1.9 | | | | | | | | |
| Sink rate after two turns | | 12m/s to 14m/s | | A | More than 14m/s | | В | |
| 10. Symmetric front collapse - 4.1.10 | | | | | | | | |
| Entry | 7 | Rocking back le | ess than 45° | А | Rocking back les | s than 45° | А | |
| Recovery | trim speed | Spontaneous in | less than 3 sec | А | Spontaneous in le | ess than 3 sec | А | |
| Dive forward angle on exit | Ē | 0° - 30° | Keeping course | Α | 0° - 30° | Keeping course | A | |
| Cascade occurs | t | No | | A | No | | А | |
| Entry | q | Rocking back le | ess than 45° | A | Rocking back les | s than 45° | A | |
| Recovery | accelerated | · · | less than 3 sec | А | Spontaneous in l | ess than 3 sec | А | |
| Dive forward angle on exit | acce | 0° - 30° | Keeping course | A | | Keeping course | A | |
| Cascade occurs | 0 | No | | A | No | | А | |

| 11. Exiting deep stall (parachutal stall) - 4.1.11 | 1 | | | | | | | | | |
|--|----------------------------------|---|---------------------|----------------|----------------------------|---|--------------------------|-----------|----------------------------|--|
| 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 No | e less than 45° | | A | Changing course No | e less than 45° | | A A | |
| 12. High angle of attack recovery - 4.1.12 | | 140 | | | A | | | | A | |
| | | 0 | | | | | | | | |
| 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 - 4.1.1 | 3 | | | | | | | | | |
| Dive forward angle on exit | | 0° - 30° | | | A | 0° - 30° | | | A | |
| Collapse Cascade occurs (other than collapse) | | No collapse | | | A | No collapse No | | | A A | |
| Rocking backward | | No Less than 45° | | | A | Less than 45° | | | A | |
| Line tension | | Most lines tight | | | A | Most lines tight | | | A | |
| 14. Asymmetric collapse (trim speed) - 4.1.14 | | | | | | | | | | |
| Change of course until re-inflation | | < 90° | Dive or roll angle | 0° - 15° | А | < 90° | Dive or roll angle | 0° - 15° | А | |
| Change of course until re-initation | bse | < 90 | Dive of foil aligie | 0 - 15 | A | < 90 | Dive of foil aligie | 0 - 15 | A | |
| Re-inflation behavior | trim speed, max 50% collapse | Spontaneous re- | -inflation | | А | Spontaneous re- | -inflation | | А | |
| Total change of course | spe 0% c | Less than 360° | | | А | Less than 360° | | | A | |
| Collapse on the opposite side occurs | trim x 50 | No | | | A | No | | | A | |
| Twist occurs | ma | No | | | Α | No | | | А | |
| Cascade occurs | | No | T | 1 | A | No | 1 | 1 | A | |
| Change of course until re-inflation | Φ | 90° - 180° | Dive or roll angle | 0° - 15° | А | 90° - 180° | Dive or roll angle | 15° - 45° | В | |
| | trim speed, max 75% collapse | | 1 | 1 | | | I | 1 | | |
| Re-inflation behavior | peec | Spontaneous re- | -inflation | | A | Spontaneous re- | -inflation | | A | |
| Total change of course | ,2% | Less than 360° | | | А | Less than 360° | | | А | |
| Collapse on the opposite side occurs | trii ax 7 | No | | | A | No | | | A | |
| Twist occurs Cascade occurs | Ë | No No | | | A | No No | | | A | |
| | | 110 | | | A | 110 | I | | A | |
| Change of course until re-inflation | Ð | < 90° | Dive or roll angle | 0° - 15° | А | < 90° | Dive or roll angle | 0° - 15° | А | |
| | accelerated, max 50% collapse | _ | | | | | | | | |
| Re-inflation behavior | accelerated x 50% colla | Spontaneous re- | -inflation | | A | Spontaneous re- | Spontaneous re-inflation | | A | |
| Total change of course | cele 50% | Less than 360° | | | Α | Less than 360° | | | А | |
| Collapse on the opposite side occurs | ax 5 | No | | | A | No | | | A | |
| Twist occurs | Ë | No | | | A | No | | | A | |
| Cascade occurs | | No | I | | A | No | 1 | | 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 | |
| | accelerated x 75% colla | | inidion | | | Less than 360° | | | | |
| Total change of course Collapse on the opposite side occurs | ccel 75 | Less than 360° No No | | | A | No No | | | A A | |
| Twist occurs | a max | | | | A | | | | A | |
| Cascade occurs | | No | | | А | No | | | А | |
| 15. Directional control with a maintained asym | metric col | llapse - 4.1.15 | | | | | | | | |
| Able to keep course straight | | Yes | | | А | Yes | | | A | |
| 180° turn away from the collapsed side possible in | n 10 sec | Yes | | | А | Yes | | | А | |
| | | | | | | | | | | |
| Amount of control range between turn and stall or spin More than 50% of the symmetric control travel | | | | A | More than 50% of | of the symmetric of | control travel | A | | |
| 16. Trim speed spin tendency - 4.1.16 | | | | | | | | | | |
| Spin occurs | | No | | | Α | No | | | A | |
| 17. Low speed spin tendency - 4.1.17 | | | | | | | | | | |
| Spin occurs | | No | | | А | No | | | А | |
| 18. Recovery from a developed spin - 4.1.18 | | | | | | | | | | |
| Spin rotation angle after release | | Stops spinning i | in less than 90° | | А | Stops spinning i | n less than 90° | | А | |
| | | | | | | Stops spinning in less than 90° | | | | |
| Cascade occurs No | | | | A | No | | | A | | |
| 19. B-line-stall - 4.1.19 | | Changing | a loss than 45% | | | Changing and | a loss than 45° | | | |
| Change of course before release | | Changing cours | | | A | Changing cours | | | A | |
| Behaviour before release | | Remains stable | with straight span | | A | Remains stable with straight span | | | | |
| Recovery | | | А | Spontancous :- | less than 2 and | | А | | | |
| Necovery | | | iess unan 3 Sec | | | Spontaneous in less than 3 sec | | | | |
| | | 0° - 30° | | | A | 0° - 30° | | | A | |
| Dive forward angle on exit | | No | | | A | No | | | A | |
| Cascade occurs | | | | | | | | | | |
| ÷ | | 1 | | | | | | | | |
| Cascade occurs | | Special device re | equired | | A | Special device re | equired | | А | |
| Cascade occurs 20. Big ears - 4.1.20 | | Special device re Stable flight | equired | | A | Special device re Stable flight | equired | | A | |
| Cascade occurs 20. Big ears - 4.1.20 Entry procedure Behaviour during big ears | | Stable flight | - | | A | Stable flight | | | A | |
| Cascade occurs 20. Big ears - 4.1.20 Entry procedure Behaviour during big ears Recovery | | Stable flight Spontaneous in | - | | A | Stable flight Spontaneous in | | | A A | |
| Cascade occurs 20. Big ears - 4.1.20 Entry procedure Behaviour during big ears Recovery Dive forward angle on exit | | Stable flight | - | | A | Stable flight | | | A | |
| Cascade occurs 20. Big ears - 4.1.20 Entry procedure Behaviour during big ears Recovery | | Stable flight Spontaneous in | - | | A | Stable flight Spontaneous in | | | A A | |
| Cascade occurs 20. Big ears - 4.1.20 Entry procedure Behaviour during big ears Recovery Dive forward angle on exit | | Stable flight Spontaneous in | less than 3 sec | | A | Stable flight Spontaneous in | less than 3 sec | | A A | |
| 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 | | Stable flight Spontaneous in 0° - 30° Special device re | less than 3 sec | | A A A | Stable flight Spontaneous in 0° bis 30° Special device re | less than 3 sec | | A A A A | |
| 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 | | Stable flight Spontaneous in 0° - 30° Special device re Stable flight | less than 3 sec | | A A A A A | Stable flight Spontaneous in 0° bis 30° Special device re Stable flight | less than 3 sec | | A A A A A | |
| 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 | | Stable flight Spontaneous in 0° - 30° Special device ru Stable flight Spontaneous in | less than 3 sec | | A A A | Stable flight Spontaneous in 0° bis 30° Special device re Stable flight Spontaneous in | less than 3 sec | | A A A A | |
| 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 | | Stable flight Spontaneous in 0° - 30° Special device re Stable flight | less than 3 sec | | A A A A A | Stable flight Spontaneous in 0° bis 30° Special device re Stable flight | less than 3 sec | | A A A A A | |
| 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 | ator while | Stable flight Spontaneous in 0° - 30° Special device ru Stable flight Spontaneous in | less than 3 sec | | A A A A A A | Stable flight Spontaneous in 0° bis 30° Special device re Stable flight Spontaneous in | less than 3 sec | | A A A A A A | |

| 22. Behaviour exiting a steep spiral - 4.1.22 | | | | | |
|--|---|--|---|---------------|--|
| Tendency to return to straight flight | Spontaneous exit | Spontaneous exit A Spontaneous exit | | | |
| Turn angle to recover normal flight | Less than 720°, spontaneous recovery | Less than 720°, spontaneous recovery A | | А | |
| 23. Alternative means of directional control - | 1.1.23 | | | | |
| 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 configur | 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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