

Paragliders Shock- and sustained loading test

Inspection certificat number:

PG_1575.2019

revision 01

Test Report

Manufacturer data

Manufacturer name: Sky Paragliders a.s.
 Representative: Michal Sotek
 Street: Okruzni 39
 Post code / place: 73911 Frydlant n.O.
 Country: Czech Republic

Sample data

Name: Apollo 2 light
 Size: XL
 Maximum weight in flight [kg]: 125
 Serial number: 2359-11-1273
 Date of reception: 27.09.2018

Test data

Test Atmosphere AGL

| | | | |
|----------------|-------------------|-------|------------|
| Place of test: | Yverdon (airport) | 5 | [°C] |
| Date of test: | 27.09.2018 | 73 | RH [%] |
| Inspector: | Alain Zoller | 979.9 | [hPA] |
| | | 0.1 | Wind [m/s] |

Shock loading test result ⁽¹⁾

Weak link used [daN]: 1000
 Visual inspection: No visible damage Results: **POSITIVE**
 Uncertainty k=2 [%] ⁽²⁾ 10

Weak link



| Instruments | Validity | Manufacturer | s/n |
|---------------------|------------|--------------|-----|
| Weak link | 2020 | Tost | n/a |
| Cable | 2020 | Rotex | n/a |
| Geos n° 11 Skywatch | 08.05.2019 | JDC elec. | 22 |

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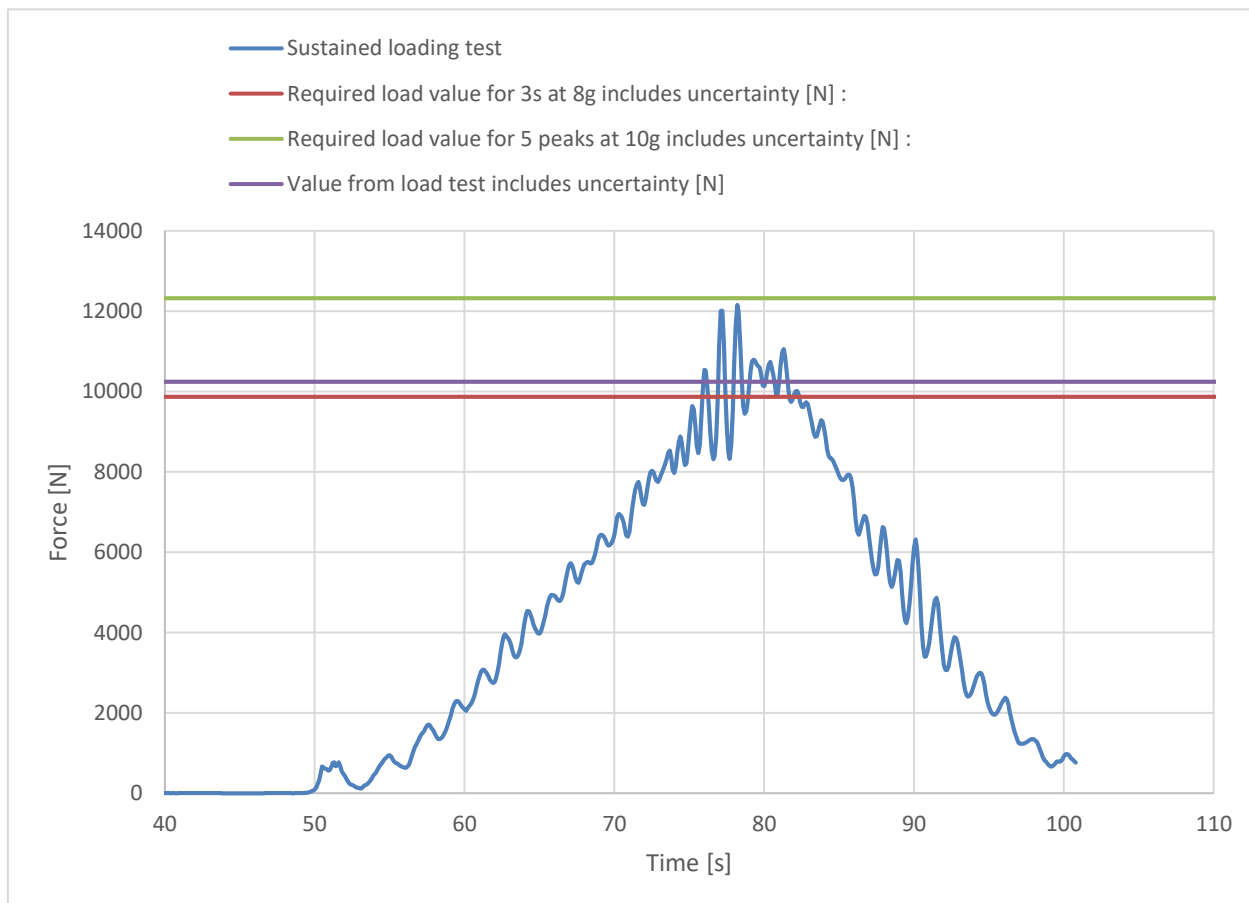
Sustained loading test results ⁽³⁾

Result : **POSITIVE**
 Calculated max load value with 3 sec or five peaks [kg] : **130.49**

Required sustained loading test results ⁽⁴⁾

Required load value for 3s at 8g [N] : **9810.00**
 Required load value for 5 peaks at 10g [N] : **12262.50**
 Required load value for 3s at 8g includes uncertainty [N] : **9869.23**
 Required load value for 5 peaks at 10g includes uncertainty [N] : **12321.73**
 Uncertainty K=2 [%] : **0.487**

Graphic sustained loading diagram





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Detailed sustained loading test results

Calculated cumulative duration at max load [s] : **3.2**

Calculated max load value duration of 3 sec. [N] : **1280.10**

Calculated max load value duration of 3 sec. [kg] : **130.49**

Calculated max load value with five peaks [N] : **n/a**

Calculated max load value with five peaks [kg] : **n/a**

Calculated max load value with 3 sec or five peaks [N] : **1280.10**

Calculated max load value with 3 sec or five peaks [kg] : **130.49**

| Instruments | Manufacturer | Type nr. | S/N |
|--------------------|--------------|--------------|----------|
| Load sensor | HBM | 1-S9M/50KN-1 | 31314652 |
| Geos n°11 Skywatch | JDC | Geos n° 11 | 0022 |

The validation of this test report is given by the signature of the test manager on inspection certificate 71.8.1

Air Turquoise SA has thoroughly tested the sample of paraglider mentioned above and certifies its conformity with the standards **EN 926-1:2015 chapter 4.4, 4.5 | LTF NFL II-91/09 chapter 3**

(1) The paraglider is subjected to a shock load . Shock load is limited using a weak link according to the weight range of glider. The weak link breaks or 5 s has elapsed since the start of the shock load. The wing is then visually inspected for damage.

(2) Weak link value include the uncertainty for weight range test values / The uncertainty state is the expanded uncertainty obtained by multiplying the standard uncertainty by the coverage factor $k = 2$. The value of the measurand lies within the assigned range of values with a probability of 95%.

(3) The test specimen (sample) is attached to the electronic sensors on the tow vehicle.

A controller is positioned on the tow vehicle in order to operate the paraglider control lines to stabilize the wing.

The speed of the vehicle is increased as gradually as possible, enabling the controller to obtain satisfactory stabilisation of the flight path of the paraglider.

When the paraglider has stabilized, the speed is increased gradually until either:

- a) the measured load exceeds a load factor of eight times the maximum total weight in flight recommended by the manufacturer, for a minimum cumulative duration of 3 s; or
- b) five peaks separated by at least 0,3 s are obtained above ten times the maximum total weight in flight recommended by the manufacturer, in one run.

(4) The calculated value include the value minus the uncertainty / The uncertainty stated is the expanded uncertainty obtained by multiplying the standard uncertainty by the coverage factor $k = 2$. The value of the measurand lies within the assigned range of values with a probability of 95%.

Flight test report: EN 926-2:2013 & LTF 91/09

| | | | |
|--------------------|---|-----------------------|--------------|
| Manufacturer | Sky Paragliders a.s. | Certification number | PG_1571.2019 |
| Address | Okružní 39 73911 Frýdlant nad Ostravicí Czech Republic | Flight test | 07.03.2016 |
| Glider model | Apollo 2 light XS | Classification | B |
| Serial number | 2151-11-0605 | Representative | None |
| Trimmer | no | Place of test | Villeneuve |
| Folding lines used | no | | |

| | | |
|--|--|-------------------|
| Test pilot | Light pilot under Air Turquoise supervision | Claude Thurnheer |
| Harness | Flugsau - XX-Lite | Flugsau - XX-Lite |
| Harness to risers distance (cm) | 40 | 40 |
| Distance between risers (cm) | 40 | 40 |
| Total weight in flight (kg) | 55 | 73 |

| | | | | |
|--|--|---|--|---|
| 1. Inflation/Take-off | A | | | |
| Rising behaviour | Smooth, easy and constant rising | A | Smooth, easy and constant rising | A |
| Special take off technique required | No | A | No | A |
| 2. Landing | A | | | |
| Special landing technique required | No | A | No | A |
| 3. Speed in straight flight | B | | | |
| Trim speed more than 30 km/h | Yes | A | Yes | A |
| Speed range using the controls larger than 10 km/h | Yes | A | Yes | A |
| Minimum speed | 25 km/h to 30 km/h | B | 25 km/h to 30 km/h | B |
| 4. Control movement | A | | | |
| Max. weight in flight up to 80 kg | | | | |
| Symmetric control pressure / travel | Increasing / greater than 55 cm | A | Increasing / greater than 55 cm | A |
| Max. weight in flight 80 kg to 100 kg | | | | |
| Symmetric control pressure / travel | not available | 0 | not available | 0 |
| Max. weight in flight greater than 100 kg | | | | |
| Symmetric control pressure / travel | not available | 0 | not available | 0 |
| 5. Pitch stability exiting accelerated flight | A | | | |
| 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 | A | | | |
| Collapse occurs | No | A | No | A |
| 7. Roll stability and damping | A | | | |
| Oscillations | Reducing | A | Reducing | A |
| 8. Stability in gentle spirals | A | | | |
| Tendency to return to straight flight | Spontaneous exit | A | Spontaneous exit | A |
| 9. Behaviour exiting a fully developed spiral dive | A | | | |
| Initial response of glider (first 180°) | Immediate reduction of rate of turn | A | Immediate reduction of rate of turn | A |
| Tendency to return to straight flight | Spontaneous exit (g force decreasing, rate of turn decreasing) | A | Spontaneous exit (g force decreasing, rate of turn decreasing) | A |
| Turn angle to recover normal flight | Less than 720°, spontaneous recovery | A | Less than 720°, spontaneous recovery | A |
| 10. Symmetric front collapse | B | | | |
| Approximately 30 % chord | Rocking back less than 45° | A | Rocking back less than 45° | A |

| | | | | |
|--|--|---|--|---|
| Recovery | Spontaneous in less than 3 s | A | Spontaneous in less than 3 s | A |
| Dive forward angle on exit Change of course | Dive forward 0° to 30° Keeping course | A | Dive forward 0° to 30° Keeping course | A |
| Cascade occurs | No | A | No | A |
| Folding lines used | No | | No | |
| At least 50% chord | | | | |
| Entry | Rocking back less than 45° | A | Rocking back less than 45° | A |
| Recovery | Spontaneous in less than 3 s | A | Spontaneous in 3 s to 5 s | B |
| Dive forward angle on exit / Change of course | Dive forward 0° to 30° / Entering a turn of less than 90° | A | Dive forward 0° to 30° / Keeping course | A |
| Cascade occurs | No | A | No | A |
| Folding lines used | No | | No | |
| With accelerator | | | | |
| Entry | Rocking back less than 45° | A | Rocking back less than 45° | A |
| Recovery | Spontaneous in 3 s to 5 s | B | Spontaneous in 3 s to 5 s | B |
| Dive forward angle on exit / Change of course | Dive forward 0° to 30° / Entering a turn of less than 90° | A | Dive forward 0° to 30° / Keeping course | A |
| Cascade occurs | No | A | No | A |
| Folding lines used | No | | No | |
| 11. Exiting deep stall (parachutal stall) | | | | |
| Deep stall achieved | Yes | A | Yes | A |
| Recovery | Spontaneous in less than 3 s | A | Spontaneous in less than 3 s | A |
| Dive forward angle on exit | Dive forward 0° to 30° | A | Dive forward 0° to 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 | | | | |
| Recovery | Spontaneous in less than 3 s | A | Spontaneous in less than 3 s | A |
| Cascade occurs | No | A | No | A |
| 13. Recovery from a developed full stall | | | | |
| Dive forward angle on exit | Dive forward 0° to 30° | A | Dive forward 0° to 30° | A |
| Collapse | No collapse | A | No collapse | A |
| Cascade occurs (other than collapses) | No | A | No | A |
| Rocking back | Less than 45° | A | Less than 45° | A |
| Line tension | Most lines tight | A | Most lines tight | A |
| 14. Asymmetric collapse | | | | |
| Small asymmetric collapse | | | | |
| Change of course until re-inflation / Maximum dive forward or roll angle | Less than 90° / Dive or roll angle 15° to 45° | A | Less than 90° / Dive or roll angle 0° to 15° | A |
| Re-inflation behaviour | 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 (or only a small number of collapsed cells with a spontaneous re-inflation) | A | No (or only a small number of collapsed cells with a spontaneous re-inflation) | A |
| Twist occurs | No | A | No | A |
| Cascade occurs | No | A | No | A |
| Folding lines used | No | | No | |
| Large asymmetric collapse | | | | |
| Change of course until re-inflation / Maximum dive forward or roll angle | Less than 90° / Dive or roll angle 15° to 45° | A | 90° to 180° / Dive or roll angle 15° to 45° | B |
| Re-inflation behaviour | 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 (or only a small number of collapsed cells with a spontaneous re-inflation) | A | No (or only a small number of collapsed cells with a spontaneous re-inflation) | A |
| Twist occurs | No | A | No | A |
| Cascade occurs | No | A | No | A |
| Folding lines used | No | | No | |
| Small asymmetric collapse with fully activated accelerator | | | | |
| Change of course until re-inflation / Maximum dive forward or roll angle | Less than 90° / Dive or roll angle 15° to 45° | A | Less than 90° / Dive or roll angle 15° to 45° | A |
| Re-inflation behaviour | 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 (or only a small number of collapsed cells with a spontaneous re-inflation) | A | No (or only a small number of collapsed cells with a spontaneous re-inflation) | A |
| Twist occurs | No | A | No | A |
| Cascade occurs | No | A | No | A |
| Folding lines used | No | | No | |
| Large asymmetric collapse with fully activated accelerator | | | | |
| Change of course until re-inflation / Maximum dive forward or roll angle | 90° to 180° / Dive or roll angle 15° to 45° | B | 90° to 180° / Dive or roll angle 15° to 45° | B |
| Re-inflation behaviour | 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 (or only a small number of collapsed cells with a spontaneous re-inflation) | A | No (or only a small number of collapsed cells with a spontaneous re-inflation) | A |
| Twist occurs | No | A | No | A |
| Cascade occurs | No | A | No | A |
| Folding lines used | No | | No | |
| 15. Directional control with a maintained asymmetric collapse | | | | |
| Able to keep course | Yes | A | Yes | A |
| 180° turn away from the collapsed side possible in 10 s | 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 | | | | |
| Spin occurs | No | A | No | A |
| 17. Low speed spin tendency | | | | |
| Spin occurs | No | A | No | A |
| 18. Recovery from a developed spin | | | | |
| 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 | | | | |
| 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 s | A | Spontaneous in less than 3 s | A |
| Dive forward angle on exit | Dive forward 0° to 30° | A | Dive forward 0° to 30° | A |
| Cascade occurs | No | A | No | A |
| 20. Big ears | | | | |
| Entry procedure | Dedicated controls | A | Dedicated controls | A |
| Behaviour during big ears | Stable flight | A | Stable flight | A |
| Recovery | Spontaneous in less than 3 s | A | Recovery through pilot action in less than a further 3 s | B |
| Dive forward angle on exit | Dive forward 0° to 30° | A | Dive forward 0° to 30° | A |
| 21. Big ears in accelerated flight | | | | |
| Entry procedure | Dedicated controls | A | Dedicated controls | A |
| Behaviour during big ears | Stable flight | A | Stable flight | A |
| Recovery | Recovery through pilot action in less than a further 3 s | B | Recovery through pilot action in less than a further 3 s | B |
| Dive forward angle on exit | Dive forward 0° to 30° | A | Dive forward 0° to 30° | A |
| Behaviour immediately after releasing the accelerator while maintaining big ears | Stable flight | A | Stable flight | A |
| 22. Alternative means of directional control | | | | |
| 180° turn achievable in 20 s | 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 | | | | |
| Procedure works as described | not available | 0 | not available | 0 |
| Procedure suitable for novice pilots | not available | 0 | not available | 0 |
| Cascade occurs | not available | 0 | not available | 0 |
| 24. Comments of test pilot | | | | |

Flight test report: EN 926-2:2013 & LTF 91/09

| | | | |
|--|---|-----------------------|----------------------|
| Manufacturer | Sky Paragliders a.s. | Certification number | PG_1572.2019 |
| Address | Okružní 39 73911 Frýdlant nad Ostravicí Czech Republic | Flight test | 26.02.2016 |
| Glider model | Apollo 2 light S | Classification | B |
| Serial number | 02060-11-1414 | Representative | None |
| Trimmer | no | Place of test | Villeneuve |
| Folding lines used | no | | |
| Test pilot | | Seiko Fukuoka | Claude Thurnheer |
| Harness | | Supair - Altiplume S | Supair - Altiplume M |
| Harness to risers distance (cm) | | 44 | 44 |
| Distance between risers (cm) | | 40 | 44 |
| Total weight in flight (kg) | | 64 | 81 |

| | | | | |
|--|--|---|--|---|
| 1. Inflation/Take-off | A | | | |
| Rising behaviour | Smooth, easy and constant rising | A | Smooth, easy and constant rising | A |
| Special take off technique required | No | A | No | A |
| 2. Landing | A | | | |
| Special landing technique required | No | A | No | A |
| 3. Speed in straight flight | A | | | |
| Trim speed more than 30 km/h | Yes | A | Yes | A |
| Speed range using the controls larger than 10 km/h | Yes | A | Yes | A |
| Minimum speed | Less than 25 km/h | A | Less than 25 km/h | A |
| 4. Control movement | A | | | |
| Max. weight in flight up to 80 kg | | | | |
| Symmetric control pressure / travel | Increasing / greater than 55 cm | A | not available | 0 |
| Max. weight in flight 80 kg to 100 kg | | | | |
| Symmetric control pressure / travel | not available | 0 | Increasing / greater than 60 cm | A |
| Max. weight in flight greater than 100 kg | | | | |
| Symmetric control pressure / travel | not available | 0 | not available | 0 |
| 5. Pitch stability exiting accelerated flight | A | | | |
| 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 | A | | | |
| Collapse occurs | No | A | No | A |
| 7. Roll stability and damping | A | | | |
| Oscillations | Reducing | A | Reducing | A |
| 8. Stability in gentle spirals | A | | | |
| Tendency to return to straight flight | Spontaneous exit | A | Spontaneous exit | A |
| 9. Behaviour exiting a fully developed spiral dive | A | | | |
| Initial response of glider (first 180°) | Immediate reduction of rate of turn | A | Immediate reduction of rate of turn | A |
| Tendency to return to straight flight | Spontaneous exit (g force decreasing, rate of turn decreasing) | A | Spontaneous exit (g force decreasing, rate of turn decreasing) | A |
| Turn angle to recover normal flight | Less than 720°, spontaneous recovery | A | Less than 720°, spontaneous recovery | A |
| 10. Symmetric front collapse | B | | | |
| Approximately 30 % chord | | | | |
| Recovery | Rocking back less than 45° | A | Rocking back less than 45° | A |
| | Spontaneous in less than 3 s | A | Spontaneous in less than 3 s | A |

| | | | | |
|--|--|---|--|---|
| Dive forward angle on exit Change of course | Dive forward 0° to 30° Keeping course | A | Dive forward 0° to 30° Keeping course | A |
| Cascade occurs | No | A | No | A |
| Folding lines used | No | | No | |
| At least 50% chord | | | | |
| Entry | Rocking back less than 45° | A | Rocking back less than 45° | A |
| Recovery | Spontaneous in less than 3 s | A | Spontaneous in 3 s to 5 s | B |
| Dive forward angle on exit / Change of course | Dive forward 0° to 30° / Keeping course | A | Dive forward 0° to 30° / Keeping course | A |
| Cascade occurs | No | A | No | A |
| Folding lines used | No | | No | |
| With accelerator | | | | |
| Entry | Rocking back less than 45° | A | Rocking back less than 45° | A |
| Recovery | Spontaneous in 3 s to 5 s | B | Spontaneous in 3 s to 5 s | B |
| Dive forward angle on exit / Change of course | Dive forward 0° to 30° / Keeping course | A | Dive forward 0° to 30° / Keeping course | A |
| Cascade occurs | No | A | No | A |
| Folding lines used | No | | No | |
| 11. Exiting deep stall (parachutal stall) | | | | |
| Deep stall achieved | Yes | A | Yes | A |
| Recovery | Spontaneous in less than 3 s | A | Spontaneous in less than 3 s | A |
| Dive forward angle on exit | Dive forward 0° to 30° | A | Dive forward 0° to 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 | | | | |
| Recovery | Spontaneous in less than 3 s | A | Spontaneous in less than 3 s | A |
| Cascade occurs | No | A | No | A |
| 13. Recovery from a developed full stall | | | | |
| Dive forward angle on exit | Dive forward 0° to 30° | A | Dive forward 0° to 30° | A |
| Collapse | No collapse | A | No collapse | A |
| Cascade occurs (other than collapses) | No | A | No | A |
| Rocking back | Less than 45° | A | Less than 45° | A |
| Line tension | Most lines tight | A | Most lines tight | A |
| 14. Asymmetric collapse | | | | |
| Small asymmetric collapse | | | | |
| Change of course until re-inflation / Maximum dive forward or roll angle | Less than 90° / Dive or roll angle 15° to 45° | A | Less than 90° / Dive or roll angle 15° to 45° | A |
| Re-inflation behaviour | 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 (or only a small number of collapsed cells with a spontaneous re-inflation) | A | No (or only a small number of collapsed cells with a spontaneous re-inflation) | A |
| Twist occurs | No | A | No | A |
| Cascade occurs | No | A | No | A |
| Folding lines used | No | | No | |
| Large asymmetric collapse | | | | |
| Change of course until re-inflation / Maximum dive forward or roll angle | Less than 90° / Dive or roll angle 15° to 45° | A | Less than 90° / Dive or roll angle 15° to 45° | A |
| Re-inflation behaviour | 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 (or only a small number of collapsed cells with a spontaneous re-inflation) | A | No (or only a small number of collapsed cells with a spontaneous re-inflation) | A |
| Twist occurs | No | A | No | A |
| Cascade occurs | No | A | No | A |
| Folding lines used | No | | No | |
| Small asymmetric collapse with fully activated accelerator | | | | |
| Change of course until re-inflation / Maximum dive forward or roll angle | Less than 90° / Dive or roll angle 15° to 45° | A | Less than 90° / Dive or roll angle 15° to 45° | A |
| Re-inflation behaviour | 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 (or only a small number of collapsed cells with a spontaneous re-inflation) | A | No (or only a small number of collapsed cells with a spontaneous re-inflation) | A |
| Twist occurs | No | A | No | A |
| Cascade occurs | No | A | No | A |
| Folding lines used | No | | No | |
| Large asymmetric collapse with fully activated accelerator | | | | |
| Change of course until re-inflation / Maximum dive forward or roll angle | 90° to 180° / Dive or roll angle 15° to 45° | B | 90° to 180° / Dive or roll angle 15° to 45° | B |
| Re-inflation behaviour | 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 (or only a small number of collapsed cells with a spontaneous re-inflation) | A | No (or only a small number of collapsed cells with a spontaneous re-inflation) | A |
| Twist occurs | No | A | No | A |
| Cascade occurs | No | A | No | A |
| Folding lines used | No | | No | |
| 15. Directional control with a maintained asymmetric collapse | | | | |
| Able to keep course | Yes | A | Yes | A |
| 180° turn away from the collapsed side possible in 10 s | 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 | | | | |
| Spin occurs | No | A | No | A |
| 17. Low speed spin tendency | | | | |
| Spin occurs | No | A | No | A |
| 18. Recovery from a developed spin | | | | |
| 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 | | | | |
| 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 s | A | Spontaneous in less than 3 s | A |
| Dive forward angle on exit | Dive forward 0° to 30° | A | Dive forward 0° to 30° | A |
| Cascade occurs | No | A | No | A |
| 20. Big ears | | | | |
| Entry procedure | Dedicated controls | A | Dedicated controls | A |
| Behaviour during big ears | Stable flight | A | Stable flight | A |
| Recovery | Spontaneous in less than 3 s | A | Spontaneous in less than 3 s | A |
| Dive forward angle on exit | Dive forward 0° to 30° | A | Dive forward 0° to 30° | A |
| 21. Big ears in accelerated flight | | | | |
| Entry procedure | Dedicated controls | A | Dedicated controls | A |
| Behaviour during big ears | Stable flight | A | Stable flight | A |
| Recovery | Recovery through pilot action in less than a further 3 s | B | Recovery through pilot action in less than a further 3 s | B |
| Dive forward angle on exit | Dive forward 0° to 30° | A | Dive forward 0° to 30° | A |
| Behaviour immediately after releasing the accelerator while maintaining big ears | Stable flight | A | Stable flight | A |
| 22. Alternative means of directional control | | | | |
| 180° turn achievable in 20 s | 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 | | | | |
| Procedure works as described | not available | 0 | not available | 0 |
| Procedure suitable for novice pilots | not available | 0 | not available | 0 |
| Cascade occurs | not available | 0 | not available | 0 |
| 24. Comments of test pilot | | | | |

Flight test report: EN 926-2:2013 & LTF 91/09

| | | | |
|--|---|-----------------------|-------------------|
| Manufacturer | Sky Paragliders a.s. | Certification number | PG_1573.2019 |
| Address | Okružní 39 73911 Frýdlant nad Ostravicí Czech Republic | Flight test | 11.11.2019 |
| Glider model | Apollo 2 light M | Classification | B |
| Serial number | 2459-11-1195 | Representative | None |
| Trimmer | no | Place of test | Villeneuve |
| Folding lines used | no | | |
| Test pilot | | Claude Thurnheer | Alain Zoller |
| Harness | | Supair - Altiplume S | Flugsau - XX-Lite |
| Harness to risers distance (cm) | | 44 | 40 |
| Distance between risers (cm) | | 40 | 44 |
| Total weight in flight (kg) | | 74 | 94 |

| | | | | |
|--|--|---|--|---|
| 1. Inflation/Take-off | A | | | |
| Rising behaviour | Smooth, easy and constant rising | A | Smooth, easy and constant rising | A |
| Special take off technique required | No | A | No | A |
| 2. Landing | A | | | |
| Special landing technique required | No | A | No | A |
| 3. Speed in straight flight | A | | | |
| Trim speed more than 30 km/h | Yes | A | Yes | A |
| Speed range using the controls larger than 10 km/h | Yes | A | Yes | A |
| Minimum speed | Less than 25 km/h | A | Less than 25 km/h | A |
| 4. Control movement | A | | | |
| Max. weight in flight up to 80 kg | | | | |
| Symmetric control pressure / travel | Increasing / greater than 55 cm | A | not available | 0 |
| Max. weight in flight 80 kg to 100 kg | | | | |
| Symmetric control pressure / travel | not available | 0 | Increasing / greater than 60 cm | A |
| Max. weight in flight greater than 100 kg | | | | |
| Symmetric control pressure / travel | not available | 0 | not available | 0 |
| 5. Pitch stability exiting accelerated flight | A | | | |
| 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 | A | | | |
| Collapse occurs | No | A | No | A |
| 7. Roll stability and damping | A | | | |
| Oscillations | Reducing | A | Reducing | A |
| 8. Stability in gentle spirals | A | | | |
| Tendency to return to straight flight | Spontaneous exit | A | Spontaneous exit | A |
| 9. Behaviour exiting a fully developed spiral dive | A | | | |
| Initial response of glider (first 180°) | Immediate reduction of rate of turn | A | Immediate reduction of rate of turn | A |
| Tendency to return to straight flight | Spontaneous exit (g force decreasing, rate of turn decreasing) | A | Spontaneous exit (g force decreasing, rate of turn decreasing) | A |
| Turn angle to recover normal flight | Less than 720°, spontaneous recovery | A | Less than 720°, spontaneous recovery | A |
| 10. Symmetric front collapse | B | | | |
| Approximately 30 % chord | | | | |
| Entry | Rocking back less than 45° | A | Rocking back less than 45° | A |

| | | | | |
|--|--|---|--|---|
| Recovery | Spontaneous in less than 3 s | A | Spontaneous in less than 3 s | A |
| Dive forward angle on exit Change of course | Dive forward 0° to 30° Keeping course | A | Dive forward 0° to 30° Keeping course | A |
| Cascade occurs | No | A | No | A |
| Folding lines used | No | | No | |
| At least 50% chord | | | | |
| Entry | Rocking back less than 45° | A | Rocking back less than 45° | A |
| Recovery | Spontaneous in 3 s to 5 s | B | Spontaneous in less than 3 s | A |
| Dive forward angle on exit / Change of course | Dive forward 0° to 30° / Keeping course | A | Dive forward 0° to 30° / Keeping course | A |
| Cascade occurs | No | A | No | A |
| Folding lines used | No | | No | |
| With accelerator | | | | |
| Entry | Rocking back less than 45° | A | Rocking back less than 45° | A |
| Recovery | Spontaneous in less than 3 s | A | Spontaneous in less than 3 s | A |
| Dive forward angle on exit / Change of course | Dive forward 0° to 30° / Keeping course | A | Dive forward 0° to 30° / Keeping course | A |
| Cascade occurs | No | A | No | A |
| Folding lines used | No | | No | |
| 11. Exiting deep stall (parachutal stall) | | | | |
| Deep stall achieved | Yes | A | Yes | A |
| Recovery | Spontaneous in less than 3 s | A | Spontaneous in less than 3 s | A |
| Dive forward angle on exit | Dive forward 0° to 30° | A | Dive forward 0° to 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 | | | | |
| Recovery | Spontaneous in less than 3 s | A | Spontaneous in less than 3 s | A |
| Cascade occurs | No | A | No | A |
| 13. Recovery from a developed full stall | | | | |
| Dive forward angle on exit | Dive forward 0° to 30° | A | Dive forward 0° to 30° | A |
| Collapse | No collapse | A | No collapse | A |
| Cascade occurs (other than collapses) | No | A | No | A |
| Rocking back | Less than 45° | A | Less than 45° | A |
| Line tension | Most lines tight | A | Most lines tight | A |
| 14. Asymmetric collapse | | | | |
| Small asymmetric collapse | | | | |
| Change of course until re-inflation / Maximum dive forward or roll angle | Less than 90° / Dive or roll angle 0° to 15° | A | Less than 90° / Dive or roll angle 0° to 15° | A |
| Re-inflation behaviour | 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 (or only a small number of collapsed cells with a spontaneous re-inflation) | A | No (or only a small number of collapsed cells with a spontaneous re-inflation) | A |
| Twist occurs | No | A | No | A |
| Cascade occurs | No | A | No | A |
| Folding lines used | No | | No | |
| Large asymmetric collapse | | | | |
| Change of course until re-inflation / Maximum dive forward or roll angle | 90° to 180° / Dive or roll angle 15° to 45° | B | 90° to 180° / Dive or roll angle 15° to 45° | B |
| Re-inflation behaviour | 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 (or only a small number of collapsed cells with a spontaneous re-inflation) | A | No (or only a small number of collapsed cells with a spontaneous re-inflation) | A |
| Twist occurs | No | A | No | A |
| Cascade occurs | No | A | No | A |
| Folding lines used | No | | No | |
| Small asymmetric collapse with fully activated accelerator | | | | |
| Change of course until re-inflation / Maximum dive forward or roll angle | Less than 90° / Dive or roll angle 15° to 45° | A | Less than 90° / Dive or roll angle 15° to 45° | A |
| Re-inflation behaviour | 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 (or only a small number of collapsed cells with a spontaneous re-inflation) | A | No (or only a small number of collapsed cells with a spontaneous re-inflation) | A |
| Twist occurs | No | A | No | A |
| Cascade occurs | No | A | No | A |
| Folding lines used | No | | No | |
| Large asymmetric collapse with fully activated accelerator | | | | |
| Change of course until re-inflation / Maximum dive forward or roll angle | 90° to 180° / Dive or roll angle 15° to 45° | B | 90° to 180° / Dive or roll angle 15° to 45° | B |
| Re-inflation behaviour | 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 (or only a small number of collapsed cells with a spontaneous re-inflation) | A | No (or only a small number of collapsed cells with a spontaneous re-inflation) | A |
| Twist occurs | No | A | No | A |
| Cascade occurs | No | A | No | A |
| Folding lines used | No | | No | |
| 15. Directional control with a maintained asymmetric collapse | | | | |
| Able to keep course | Yes | A | Yes | A |
| 180° turn away from the collapsed side possible in 10 s | 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 | | | | |
| Spin occurs | No | A | No | A |
| 17. Low speed spin tendency | | | | |
| Spin occurs | No | A | No | A |
| 18. Recovery from a developed spin | | | | |
| 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 | | | | |
| 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 s | A | Spontaneous in less than 3 s | A |
| Dive forward angle on exit | Dive forward 0° to 30° | A | Dive forward 0° to 30° | A |
| Cascade occurs | No | A | No | A |
| 20. Big ears | | | | |
| Entry procedure | Dedicated controls | A | Dedicated controls | A |
| Behaviour during big ears | Stable flight | A | Stable flight | A |
| Recovery | Spontaneous in less than 3 s | A | Spontaneous in less than 3 s | A |
| Dive forward angle on exit | Dive forward 0° to 30° | A | Dive forward 0° to 30° | A |
| 21. Big ears in accelerated flight | | | | |
| Entry procedure | Dedicated controls | A | Dedicated controls | A |
| Behaviour during big ears | Stable flight | A | Stable flight | A |
| Recovery | Recovery through pilot action in less than a further 3 s | B | Spontaneous in less than 3 s | A |
| Dive forward angle on exit | Dive forward 0° to 30° | A | Dive forward 0° to 30° | A |
| Behaviour immediately after releasing the accelerator while maintaining big ears | Stable flight | A | Stable flight | A |
| 22. Alternative means of directional control | | | | |
| 180° turn achievable in 20 s | 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 | | | | |
| Procedure works as described | not available | 0 | not available | 0 |
| Procedure suitable for novice pilots | not available | 0 | not available | 0 |
| Cascade occurs | not available | 0 | not available | 0 |
| 24. Comments of test pilot | | | | |

Flight test report: EN 926-2:2013 & LTF 91/09

| | | | |
|--|---|-----------------------|-------------------------|
| Manufacturer | Sky Paragliders a.s. | Certification number | PG_1574.2019 |
| Address | Okružní 39 73911 Frýdlant nad Ostravicí Czech Republic | Flight test | 14.12.2015 |
| Glider model | Apollo 2 light L | Classification | B |
| Serial number | 2058-11-1242 | Representative | None |
| Trimmer | no | Place of test | Villeneuve |
| Folding lines used | no | | |
| Test pilot | | Claude Thurnheer | Alain Zoller |
| Harness | | Supair - Access M | Gin Gliders - Gingo 2 L |
| Harness to risers distance (cm) | | 46 | 43 |
| Distance between risers (cm) | | 44 | 46 |
| Total weight in flight (kg) | | 85 | 108 |

| | | | | |
|--|--|---|--|---|
| 1. Inflation/Take-off | A | | | |
| Rising behaviour | Smooth, easy and constant rising | A | Smooth, easy and constant rising | A |
| Special take off technique required | No | A | No | A |
| 2. Landing | A | | | |
| Special landing technique required | No | A | No | A |
| 3. Speed in straight flight | A | | | |
| Trim speed more than 30 km/h | Yes | A | Yes | A |
| Speed range using the controls larger than 10 km/h | Yes | A | Yes | A |
| Minimum speed | Less than 25 km/h | A | Less than 25 km/h | A |
| 4. Control movement | A | | | |
| Max. weight in flight up to 80 kg | | | | |
| Symmetric control pressure / travel | not available | 0 | not available | 0 |
| Max. weight in flight 80 kg to 100 kg | | | | |
| Symmetric control pressure / travel | Increasing / greater than 60 cm | A | not available | 0 |
| Max. weight in flight greater than 100 kg | | | | |
| Symmetric control pressure / travel | not available | 0 | Increasing / greater than 65 cm | A |
| 5. Pitch stability exiting accelerated flight | A | | | |
| 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 | A | | | |
| Collapse occurs | No | A | No | A |
| 7. Roll stability and damping | A | | | |
| Oscillations | Reducing | A | Reducing | A |
| 8. Stability in gentle spirals | A | | | |
| Tendency to return to straight flight | Spontaneous exit | A | Spontaneous exit | A |
| 9. Behaviour exiting a fully developed spiral dive | A | | | |
| Initial response of glider (first 180°) | Immediate reduction of rate of turn | A | Immediate reduction of rate of turn | A |
| Tendency to return to straight flight | Spontaneous exit (g force decreasing, rate of turn decreasing) | A | Spontaneous exit (g force decreasing, rate of turn decreasing) | A |
| Turn angle to recover normal flight | Less than 720°, spontaneous recovery | A | Less than 720°, spontaneous recovery | A |
| 10. Symmetric front collapse | B | | | |
| Approximately 30 % chord | | | | |
| Recovery | Rocking back less than 45° | A | Rocking back less than 45° | A |
| | Spontaneous in less than 3 s | A | Spontaneous in less than 3 s | A |

| | | | | | |
|--|------------------|--|---|--|---|
| Dive forward angle on exit | Change of course | Dive forward 0° to 30° Keeping course | A | Dive forward 0° to 30° Keeping course | A |
| Cascade occurs | | No | A | No | A |
| Folding lines used | | No | | No | |
| At least 50% chord | | | | | |
| Entry | | Rocking back less than 45° | A | Rocking back less than 45° | A |
| Recovery | | Spontaneous in 3 s to 5 s | B | Spontaneous in less than 3 s | A |
| Dive forward angle on exit / Change of course | | Dive forward 0° to 30° / Keeping course | A | Dive forward 0° to 30° / Keeping course | A |
| Cascade occurs | | No | A | No | A |
| Folding lines used | | No | | No | |
| With accelerator | | | | | |
| Entry | | Rocking back less than 45° | A | Rocking back less than 45° | A |
| Recovery | | Spontaneous in 3 s to 5 s | B | Spontaneous in less than 3 s | A |
| Dive forward angle on exit / Change of course | | Dive forward 0° to 30° / Keeping course | A | Dive forward 30° to 60° / Keeping course | B |
| Cascade occurs | | No | A | No | A |
| Folding lines used | | No | | No | |
| 11. Exiting deep stall (parachutal stall) | | | | | |
| Deep stall achieved | | Yes | A | Yes | A |
| Recovery | | Spontaneous in less than 3 s | A | Spontaneous in less than 3 s | A |
| Dive forward angle on exit | | Dive forward 0° to 30° | A | Dive forward 0° to 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 | | | | | |
| Recovery | | Spontaneous in less than 3 s | A | Spontaneous in less than 3 s | A |
| Cascade occurs | | No | A | No | A |
| 13. Recovery from a developed full stall | | | | | |
| Dive forward angle on exit | | Dive forward 0° to 30° | A | Dive forward 0° to 30° | A |
| Collapse | | No collapse | A | No collapse | A |
| Cascade occurs (other than collapses) | | No | A | No | A |
| Rocking back | | Less than 45° | A | Less than 45° | A |
| Line tension | | Most lines tight | A | Most lines tight | A |
| 14. Asymmetric collapse | | | | | |
| Small asymmetric collapse | | | | | |
| Change of course until re-inflation / Maximum dive forward or roll angle | | Less than 90° / Dive or roll angle 15° to 45° | A | Less than 90° / Dive or roll angle 0° to 15° | A |
| Re-inflation behaviour | | 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 (or only a small number of collapsed cells with a spontaneous re-inflation) | A | No (or only a small number of collapsed cells with a spontaneous re-inflation) | A |
| Twist occurs | | No | A | No | A |
| Cascade occurs | | No | A | No | A |
| Folding lines used | | No | | No | |
| Large asymmetric collapse | | | | | |
| Change of course until re-inflation / Maximum dive forward or roll angle | | 90° to 180° / Dive or roll angle 15° to 45° | B | 90° to 180° / Dive or roll angle 15° to 45° | B |
| Re-inflation behaviour | | 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 (or only a small number of collapsed cells with a spontaneous re-inflation) | A | No (or only a small number of collapsed cells with a spontaneous re-inflation) | A |
| Twist occurs | | No | A | No | A |
| Cascade occurs | | No | A | No | A |
| Folding lines used | | No | | No | |
| Small asymmetric collapse with fully activated accelerator | | | | | |
| Change of course until re-inflation / Maximum dive forward or roll angle | | Less than 90° / Dive or roll angle 15° to 45° | A | Less than 90° / Dive or roll angle 15° to 45° | A |
| Re-inflation behaviour | | 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 (or only a small number of collapsed cells with a spontaneous re-inflation) | A | No (or only a small number of collapsed cells with a spontaneous re-inflation) | A |
| Twist occurs | No | A | No | A |
| Cascade occurs | No | A | No | A |
| Folding lines used | No | | No | |
| Large asymmetric collapse with fully activated accelerator | | | | |
| Change of course until re-inflation / Maximum dive forward or roll angle | 90° to 180° / Dive or roll angle 15° to 45° | B | 90° to 180° / Dive or roll angle 15° to 45° | B |
| Re-inflation behaviour | 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 (or only a small number of collapsed cells with a spontaneous re-inflation) | A | No (or only a small number of collapsed cells with a spontaneous re-inflation) | A |
| Twist occurs | No | A | No | A |
| Cascade occurs | No | A | No | A |
| Folding lines used | No | | No | |
| 15. Directional control with a maintained asymmetric collapse | | | | |
| Able to keep course | Yes | A | Yes | A |
| 180° turn away from the collapsed side possible in 10 s | 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 | | | | |
| Spin occurs | No | A | No | A |
| 17. Low speed spin tendency | | | | |
| Spin occurs | No | A | No | A |
| 18. Recovery from a developed spin | | | | |
| 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 | | | | |
| 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 s | A | Spontaneous in less than 3 s | A |
| Dive forward angle on exit | Dive forward 0° to 30° | A | Dive forward 0° to 30° | A |
| Cascade occurs | No | A | No | A |
| 20. Big ears | | | | |
| Entry procedure | Dedicated controls | A | Dedicated controls | A |
| Behaviour during big ears | Stable flight | A | Stable flight | A |
| Recovery | Recovery through pilot action in less than a further 3 s | B | Spontaneous in less than 3 s | A |
| Dive forward angle on exit | Dive forward 0° to 30° | A | Dive forward 0° to 30° | A |
| 21. Big ears in accelerated flight | | | | |
| Entry procedure | Dedicated controls | A | Dedicated controls | A |
| Behaviour during big ears | Stable flight | A | Stable flight | A |
| Recovery | Spontaneous in 3 s to 5 s | A | Spontaneous in less than 3 s | A |
| Dive forward angle on exit | Dive forward 0° to 30° | A | Dive forward 0° to 30° | A |
| Behaviour immediately after releasing the accelerator while maintaining big ears | Stable flight | A | Stable flight | A |
| 22. Alternative means of directional control | | | | |
| 180° turn achievable in 20 s | 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 | | | | |
| Procedure works as described | Yes | A | not available | 0 |
| Procedure suitable for novice pilots | Yes | A | not available | 0 |
| Cascade occurs | No | A | not available | 0 |
| 24. Comments of test pilot | | | | |

Flight test report: EN 926-2:2013 & LTF 91/09

| | | | |
|--|---|-----------------------|-------------------------|
| Manufacturer | Sky Paragliders a.s. | Certification number | PG_1575.2019 |
| Address | Okružní 39 73911 Frýdlant nad Ostravicí Czech Republic | Flight test | 11.04.2016 |
| Glider model | Apollo 2 light XL | Classification | B |
| Serial number | 2152-11-0639 | Representative | None |
| Trimmer | no | Place of test | Villeneuve |
| Folding lines used | no | | |
| Test pilot | | Claude Thurnheer | Alain Zoller |
| Harness | | Niviuk - Hamak M | Gin Gliders - Gingo 2 L |
| Harness to risers distance (cm) | | 42 | 43 |
| Distance between risers (cm) | | 44 | 46 |
| Total weight in flight (kg) | | 99 | 125 |

| | | | | |
|--|--|---|--|---|
| 1. Inflation/Take-off | A | | | |
| Rising behaviour | Smooth, easy and constant rising | A | Smooth, easy and constant rising | A |
| Special take off technique required | No | A | No | A |
| 2. Landing | A | | | |
| Special landing technique required | No | A | No | A |
| 3. Speed in straight flight | A | | | |
| Trim speed more than 30 km/h | Yes | A | Yes | A |
| Speed range using the controls larger than 10 km/h | Yes | A | Yes | A |
| Minimum speed | Less than 25 km/h | A | Less than 25 km/h | A |
| 4. Control movement | A | | | |
| Max. weight in flight up to 80 kg | | | | |
| Symmetric control pressure / travel | not available | 0 | not available | 0 |
| Max. weight in flight 80 kg to 100 kg | | | | |
| Symmetric control pressure / travel | Increasing / greater than 60 cm | A | not available | 0 |
| Max. weight in flight greater than 100 kg | | | | |
| Symmetric control pressure / travel | not available | 0 | Increasing / greater than 65 cm | A |
| 5. Pitch stability exiting accelerated flight | A | | | |
| 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 | A | | | |
| Collapse occurs | No | A | No | A |
| 7. Roll stability and damping | A | | | |
| Oscillations | Reducing | A | Reducing | A |
| 8. Stability in gentle spirals | A | | | |
| Tendency to return to straight flight | Spontaneous exit | A | Spontaneous exit | A |
| 9. Behaviour exiting a fully developed spiral dive | A | | | |
| Initial response of glider (first 180°) | Immediate reduction of rate of turn | A | Immediate reduction of rate of turn | A |
| Tendency to return to straight flight | Spontaneous exit (g force decreasing, rate of turn decreasing) | A | Spontaneous exit (g force decreasing, rate of turn decreasing) | A |
| Turn angle to recover normal flight | Less than 720°, spontaneous recovery | A | Less than 720°, spontaneous recovery | A |
| 10. Symmetric front collapse | B | | | |
| Approximately 30 % chord | | | | |
| Recovery | Rocking back less than 45° | A | Rocking back less than 45° | A |
| | Spontaneous in less than 3 s | A | Spontaneous in less than 3 s | A |

| | | | | |
|--|--|---|--|---|
| Dive forward angle on exit Change of course | Dive forward 0° to 30° Keeping course | A | Dive forward 0° to 30° Keeping course | A |
| Cascade occurs | No | A | No | A |
| Folding lines used | No | | No | |
| At least 50% chord | | | | |
| Entry | Rocking back less than 45° | A | Rocking back less than 45° | A |
| Recovery | Spontaneous in 3 s to 5 s | B | Spontaneous in less than 3 s | A |
| Dive forward angle on exit / Change of course | Dive forward 0° to 30° / Keeping course | A | Dive forward 0° to 30° / Keeping course | A |
| Cascade occurs | No | A | No | A |
| Folding lines used | No | | No | |
| With accelerator | | | | |
| Entry | Rocking back less than 45° | A | Rocking back less than 45° | A |
| Recovery | Spontaneous in less than 3 s | A | Spontaneous in less than 3 s | A |
| Dive forward angle on exit / Change of course | Dive forward 0° to 30° / Keeping course | A | Dive forward 30° to 60° / Keeping course | B |
| Cascade occurs | No | A | No | A |
| Folding lines used | No | | No | |
| 11. Exiting deep stall (parachutal stall) | | | | |
| Deep stall achieved | Yes | A | Yes | A |
| Recovery | Spontaneous in less than 3 s | A | Spontaneous in less than 3 s | A |
| Dive forward angle on exit | Dive forward 0° to 30° | A | Dive forward 0° to 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 | | | | |
| Recovery | Spontaneous in less than 3 s | A | Spontaneous in less than 3 s | A |
| Cascade occurs | No | A | No | A |
| 13. Recovery from a developed full stall | | | | |
| Dive forward angle on exit | Dive forward 0° to 30° | A | Dive forward 0° to 30° | A |
| Collapse | No collapse | A | No collapse | A |
| Cascade occurs (other than collapses) | No | A | No | A |
| Rocking back | Less than 45° | A | Less than 45° | A |
| Line tension | Most lines tight | A | Most lines tight | A |
| 14. Asymmetric collapse | | | | |
| Small asymmetric collapse | | | | |
| Change of course until re-inflation / Maximum dive forward or roll angle | Less than 90° / Dive or roll angle 15° to 45° | A | Less than 90° / Dive or roll angle 0° to 15° | A |
| Re-inflation behaviour | 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 (or only a small number of collapsed cells with a spontaneous re-inflation) | A | No (or only a small number of collapsed cells with a spontaneous re-inflation) | A |
| Twist occurs | No | A | No | A |
| Cascade occurs | No | A | No | A |
| Folding lines used | No | | No | |
| Large asymmetric collapse | | | | |
| Change of course until re-inflation / Maximum dive forward or roll angle | 90° to 180° / Dive or roll angle 15° to 45° | B | 90° to 180° / Dive or roll angle 15° to 45° | B |
| Re-inflation behaviour | 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 (or only a small number of collapsed cells with a spontaneous re-inflation) | A | No (or only a small number of collapsed cells with a spontaneous re-inflation) | A |
| Twist occurs | No | A | No | A |
| Cascade occurs | No | A | No | A |
| Folding lines used | No | | No | |
| Small asymmetric collapse with fully activated accelerator | | | | |
| Change of course until re-inflation / Maximum dive forward or roll angle | Less than 90° / Dive or roll angle 15° to 45° | A | Less than 90° / Dive or roll angle 15° to 45° | A |
| Re-inflation behaviour | 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 (or only a small number of collapsed cells with a spontaneous re-inflation) | A | No (or only a small number of collapsed cells with a spontaneous re-inflation) | A |
| Twist occurs | No | A | No | A |
| Cascade occurs | No | A | No | A |
| Folding lines used | No | | No | |
| Large asymmetric collapse with fully activated accelerator | | | | |
| Change of course until re-inflation / Maximum dive forward or roll angle | 90° to 180° / Dive or roll angle 15° to 45° | B | 90° to 180° / Dive or roll angle 15° to 45° | B |
| Re-inflation behaviour | 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 (or only a small number of collapsed cells with a spontaneous re-inflation) | A | No (or only a small number of collapsed cells with a spontaneous re-inflation) | A |
| Twist occurs | No | A | No | A |
| Cascade occurs | No | A | No | A |
| Folding lines used | No | | No | |
| 15. Directional control with a maintained asymmetric collapse | | | | |
| Able to keep course | Yes | A | Yes | A |
| 180° turn away from the collapsed side possible in 10 s | 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 | | | | |
| Spin occurs | No | A | No | A |
| 17. Low speed spin tendency | | | | |
| Spin occurs | No | A | No | A |
| 18. Recovery from a developed spin | | | | |
| Spin rotation angle after release | Stops spinning in 90° to 180° | B | Stops spinning in 90° to 180° | B |
| Cascade occurs | No | A | No | A |
| 19. B-line stall | | | | |
| 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 s | A | Spontaneous in less than 3 s | A |
| Dive forward angle on exit | Dive forward 0° to 30° | A | Dive forward 0° to 30° | A |
| Cascade occurs | No | A | No | A |
| 20. Big ears | | | | |
| Entry procedure | Dedicated controls | A | Dedicated controls | A |
| Behaviour during big ears | Stable flight | A | Stable flight | A |
| Recovery | Spontaneous in 3 s to 5 s | B | Spontaneous in less than 3 s | A |
| Dive forward angle on exit | Dive forward 0° to 30° | A | Dive forward 0° to 30° | A |
| 21. Big ears in accelerated flight | | | | |
| Entry procedure | Dedicated controls | A | Dedicated controls | A |
| Behaviour during big ears | Stable flight | A | Stable flight | A |
| Recovery | Spontaneous in 3 s to 5 s | A | Spontaneous in less than 3 s | A |
| Dive forward angle on exit | Dive forward 0° to 30° | A | Dive forward 0° to 30° | A |
| Behaviour immediately after releasing the accelerator while maintaining big ears | Stable flight | A | Stable flight | A |
| 22. Alternative means of directional control | | | | |
| 180° turn achievable in 20 s | 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 | | | | |
| Procedure works as described | not available | 0 | not available | 0 |
| Procedure suitable for novice pilots | not available | 0 | not available | 0 |
| Cascade occurs | not available | 0 | not available | 0 |
| 24. Comments of test pilot | | | | |



Classification: **B**

In accordance with standards EN 926-1:2015, EN 926-2:2013 and LTF NFL II-91/09:

Date of issue (DMY):

Manufacturer:

Model:

Serial number:

PG_1571.2019

22.11.2019

Sky Paragliders a.s.

Apollo 2 light XS

2151-11-0605

Configuration during flight tests

Paraglider

| | |
|-------------------------------|-------------|
| Maximum weight in flight (kg) | 73 |
| Minimum weight in flight (kg) | 55 |
| Glider's weight (kg) | 3.2 |
| Number of risers | 3 |
| Projected area (m2) | 18.9 |

Accessories

| | |
|---|-----------|
| Range of speed system (cm) | 13 |
| Speed range using brakes (km/h) | 14 |
| Total speed range with accessories (km/h) | 28 |
| Range of trimmers (cm) | 0 |

Harness used for testing (max weight)

| | |
|---------------|----------------|
| Harness type | ABS |
| Harness brand | Flugsau |
| Harness model | XX-Lite |

Inspections (whichever happens first)

every 24 months or every 100 flying hours
Warning! Before use refer to user's manual
Person or company having presented the glider for testing: **sky paraglider**

Harness to risers distance (cm) **40**

Distance between risers (cm) **40**

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
A A B A A A A A B A A A B A A A A B B A 0



Classification: **B**

In accordance with standards EN 926-1:2015, EN 926-2:2013 and LTF NFL II-91/09:

Date of issue (DMY):

Manufacturer:

Model:

Serial number:

PG_1572.2019

22.11.2019

Sky Paragliders a.s.

Apollo 2 light S

2060-11-1414

Configuration during flight tests

Paraglider

| | |
|-------------------------------|--------------|
| Maximum weight in flight (kg) | 81 |
| Minimum weight in flight (kg) | 64 |
| Glider's weight (kg) | 3.4 |
| Number of risers | 3 |
| Projected area (m2) | 20.19 |

Accessories

| | |
|---|-----------|
| Range of speed system (cm) | 14 |
| Speed range using brakes (km/h) | 14 |
| Total speed range with accessories (km/h) | 28 |
| Range of trimmers (cm) | 0 |

Harness used for testing (max weight)

| | |
|---------------------------------|--------------------|
| Harness type | ABS |
| Harness brand | Supair |
| Harness model | Altiplume M |
| Harness to risers distance (cm) | 44 |
| Distance between risers (cm) | 44 |

Inspections (whichever happens first)

every 24 months or every 100 flying hours
Warning! Before use refer to user's manual
Person or company having presented the glider for testing: **sky paraglider**

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
A A A A A A A A A B A A A B A A A A A B A 0



Classification: **B**

In accordance with standards EN 926-1:2015, EN 926-2:2013 and LTF NFL II-91/09:

Date of issue (DMY):

Manufacturer:

Model:

Serial number:

PG_1573.2019

22.11.2019

Sky Paragliders a.s.

Apollo 2 light M

2459-11-1195

Configuration during flight tests

Paraglider

| | |
|-------------------------------|--------------|
| Maximum weight in flight (kg) | 94 |
| Minimum weight in flight (kg) | 74 |
| Glider's weight (kg) | 3.5 |
| Number of risers | 3 |
| Projected area (m2) | 21.56 |

Accessories

| | |
|---|-----------|
| Range of speed system (cm) | 14 |
| Speed range using brakes (km/h) | 14 |
| Total speed range with accessories (km/h) | 28 |
| Range of trimmers (cm) | 0 |

Harness used for testing (max weight)

| | |
|---------------|----------------|
| Harness type | ABS |
| Harness brand | Flugsau |
| Harness model | XX-Lite |

Inspections (whichever happens first)

every 24 monthes or every 100 flying hours
Warning! Before use refer to user's manual
Person or company having presented the glider for testing: **None**

Harness to risers distance (cm) **40**

Distance between risers (cm) **44**

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
A A A A A A A A A B A A A B A A A A A B A 0



Classification: **B**

In accordance with standards EN 926-1:2015, EN 926-2:2013 and LTF NFL II-91/09:

Date of issue (DMY):

Manufacturer:

Model:

Serial number:

PG_1574.2019

22.11.2019

Sky Paragliders a.s.

Apollo 2 light L

2058-11-1242

Configuration during flight tests

Paraglider

| | |
|-------------------------------|--------------|
| Maximum weight in flight (kg) | 108 |
| Minimum weight in flight (kg) | 85 |
| Glider's weight (kg) | 3.7 |
| Number of risers | 3 |
| Projected area (m2) | 23.03 |

Accessories

| | |
|---|-----------|
| Range of speed system (cm) | 14 |
| Speed range using brakes (km/h) | 14 |
| Total speed range with accessories (km/h) | 28 |
| Range of trimmers (cm) | 0 |

Harness used for testing (max weight)

| | |
|---------------------------------|--------------------|
| Harness type | ABS |
| Harness brand | Gin Gliders |
| Harness model | Gingo 2 L |
| Harness to risers distance (cm) | 43 |
| Distance between risers (cm) | 46 |

Inspections (whichever happens first)

| | |
|--|--|
| every 24 months or every 100 flying hours | |
| Warning! Before use refer to user's manual | |
| Person or company having presented the glider for testing: None | |

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
A A A A A A A A A B A A A B A A A A B A A A



Classification: **B**

In accordance with standards EN 926-1:2015, EN 926-2:2013 and LTF NFL II-91/09:

Date of issue (DMY):

Manufacturer:

Model:

Serial number:

PG_1575.2019

22.11.2019

Sky Paragliders a.s.

Apollo 2 light XL

2152-11-0639

Configuration during flight tests

Paraglider

| | |
|-------------------------------|-------------|
| Maximum weight in flight (kg) | 125 |
| Minimum weight in flight (kg) | 99 |
| Glider's weight (kg) | 3.9 |
| Number of risers | 3 |
| Projected area (m2) | 24.6 |

Accessories

| | |
|---|-----------|
| Range of speed system (cm) | 16 |
| Speed range using brakes (km/h) | 14 |
| Total speed range with accessories (km/h) | 28 |
| Range of trimmers (cm) | 0 |

Harness used for testing (max weight)

| | |
|---------------------------------|--------------------|
| Harness type | ABS |
| Harness brand | Gin Gliders |
| Harness model | Gingo 2 L |
| Harness to risers distance (cm) | 43 |
| Distance between risers (cm) | 46 |

Inspections (whichever happens first)

| | |
|--|--|
| every 24 months or every 100 flying hours | |
| Warning! Before use refer to user's manual | |
| Person or company having presented the glider for testing: None | |

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
A A A A A A A A A B A A A B A A A B A B A A 0