



paragliding by air turquoise

# REPORT FLIGHT AND STRUCTURE TEST RESCUE

EN 12491 |2001 | NfL II 91/09

**Manufacturer** VITAL PARACHUTE INC.  
**Address** 4th floor, Samjin bldg.  
 596 Cheonho-daero, Gwnagjin  
 Seoul 143-848 / Korea Republic

**Certification number:** EP 115.2014  
**Type/model:** Octagon 45L (XL)  
**Total weight in flight:** 140 kg  
**Serial number STRENGTH** VPR-OTG141038  
**Serial number FLIGHT** VPR-OTG141028

## Measurement of Flight test rescue (5kg Tension)

Center Line   mm	7065 cm
Main Line 1   mm	6540 cm
Main Line 2   mm	
Number of cell:	16
Tolerance   mm	25 mm
Weight   grame	1870

TESTS	place:	date:	result:
<b>1. Deployment system strength test</b> A load of 700 N between each components	Villeneuve	26.11.2014	OK
<b>2. Speed of opening test - ref. A (2 times)</b> Time from the instant of free drop until a load of 200 N is sustained Opening time Opening time	Villeneuve	13.11.2014 18.11.2014	4.12 sec 4.89 sec
<b>3. Descent rate and stability test - ref. A and B (2 times)</b> The paraglider is released as the parachute begins to open, minimum 100 m descent. Stability 1 Sink rate 1 Stability 2 Sink rate 2	Villeneuve	13.11.2014 18.11.2014 13.11.2014 18.11.2014	Stable 5.06 m/sec Stable 5.33 m/sec
<b>4. Strength test 40 m/s opening shock (2 times)</b> The drop test device is accelerated to a straight line velocity of 40 m/s. Speed of opening is less than 5 seconds and shock not exceeded 15g Test 1 Test 2 Test 3	Illarsaz	20.11.2014 20.11.2014 20.11.2014	OK OK OK
<b>5. Interaction and stability test (piloted) - ref. C</b> a the emergency parachute is deployed from a paraglider in normal straight flight. b the pilot shall take no action while the behaviour of the parachute and paraglider are observed 200 metres. c the pilot take action while the behaviour of the parachute and paraglider are observed 200 metres.			not available  not available  not available
<b>6. Connecting strap</b> Mininum load capacity of 2400 daN			



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## Weather data, ref. 3 and B

Date / place	hPa	wind	tem	humidity
Villeneuve, November 13, 2014	961.5	1.6 km/h	10.4	78.0%
Corrected mass:		<b>134.81 kg</b>		
Villeneuve, November 18, 2014	958	0	8.3	78.0%
Corrected mass:		<b>135.52 kg</b>		

## Reference

A. At horizontal airspeed 8 m/s and vertical speed 1.5 m/s

B. Formula to be used for correcting the test mass ofr differences from ICAO standard atmosphere

$$m_{corr} := m_{dec} \cdot \frac{p \cdot T_0}{p_0 \cdot T}$$

Ground level atmospheric pressure at the test location: (p)

ICAO standard atmospheric pressure at MSL: (p<sub>0</sub>)

Ground level température at the test location: (T)

ICAO standard temperature at MSL: (T<sub>0</sub>)

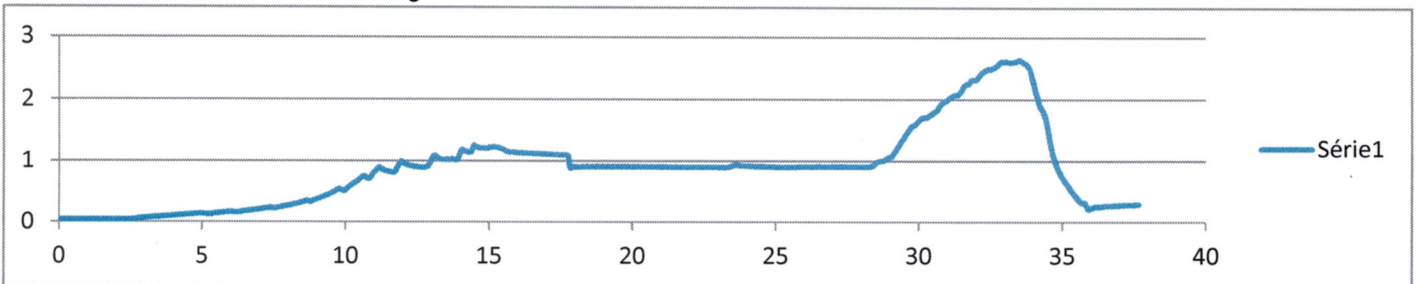
Total weight in flight: (m<sub>dec</sub>)

Corrected mass: (m<sub>corr</sub>)

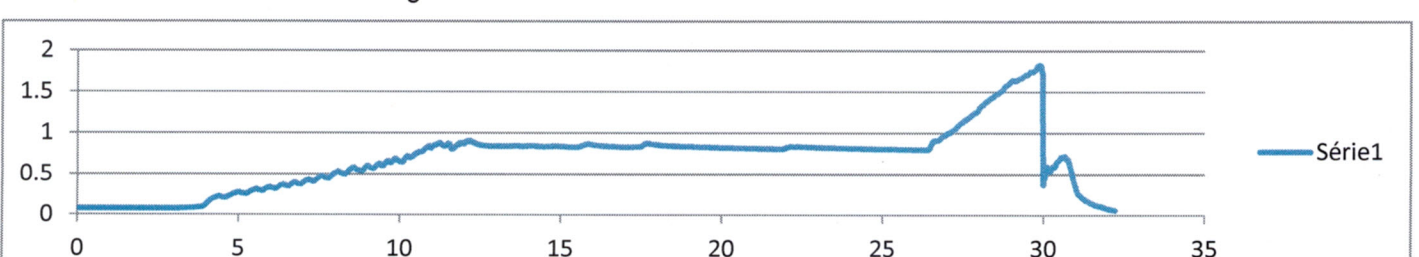
C. Only parachute with controls for steering and landing flare

GRAPHIQUE concerning Nfl II 91/09 "§ 6.1.8 inner container"

Max load attachement 1 = 263.9 kg



Max load attachement 2 = 182.4 kg





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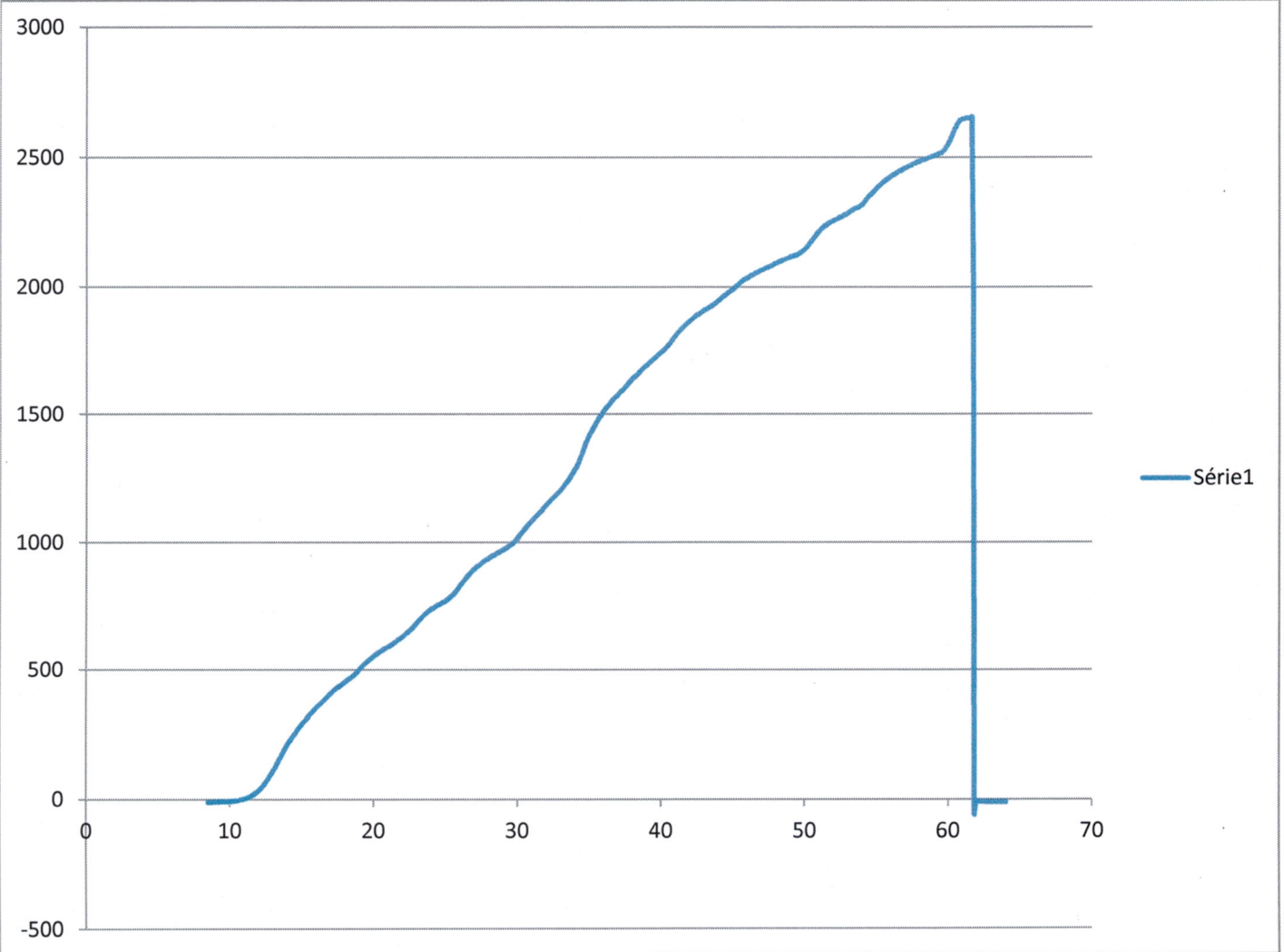
EP 115.2014

Type/model:

Octagon 45L (XL)

GRAPHIQUE concerning Nfl II 91/09 "§ 6.1.4 connecting strap"

Max load = 2656,1 kg



## Air Turquoise SA

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For Air Turquoise SA

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Alain Zoller

Villeneuve, 17.02.2015