

SKYSAVER

EC DECLARATION OF CONFORMITY

COUNCIL DIRECTIVE 89/686/EEC

We hereby declare under our own responsibility that the following product:

Brand: Skysaver

Models: SKS-80, SKS 160, SKS 260

Manufacturer: Skysaver Ltd.

is in compliance with the essential requirements of the following performance standards:

EN 341: Type 1 Class D Personal Fall Protection Equipment: Descender Devices for Rescue

EN 362: Personal protective equipment against falls from a height. Connectors

EN 1497: Personal Protection Equipment – Rescue Harnesses

ASTM 2484 – Standard Specification for Multi-Story Building External Evacuation Controlled Descent Devices

ASTM F1772 - Standard Specification for Harnesses for Rescue, Safety and Sport Activities

REACH Compliance is evidenced by written declaration from our suppliers; assuring that any potential trace contamination levels of these listed substances are below the maximums set forth in the EU Directives.

Test Reports:

Gravitek Test Report No. 210133-THS-04, 210133-THS-05, 210133-AHD-02, 210133-AHD-03, 210133-AHD-04

Standards Institution of Israel Test Report No. 9513207225

TUV Sud – EC Type Certificate No. P5 1703 98962 001 for compliance with DIN/EN 341 Type 1 Class D, EN 362, EN 1497.

Avner Farkash, CEO

Signature: SkySaver Rescue Ltd
 ID: 515034494

Date: March 2017

Address: SkySaver Inc. 40 Wall Street, New York, NY 10005
Phone: 1-855-759-7283, (1-855-SKY-SAVER)



Product Service

TÜV SÜD Product Service GmbH • Ridlerstraße 65 • 80339 Munich • Germany

**Choose certainty.
Add value.**

SkySaver Inc.
Mr. Yoav Preiss
729 Ocean Parkway
US-Brooklyn, NY 11230

Your ref./from	Our ref./Name	Phone-ext/E-Mail	Fax-ext	Date	Page
	MSL-MUC-kn Volker Kron	+49 89 361 965-480 volker.kron@tuev-sued.de	+49 89 361965-799	2017-02-03	1 of 1

Confirmation Test Status SkySaver Descending Device EN 341-D; Order 713071535

Dear Mrs Preiss,

TÜV SÜD Product Service GmbH declares that descending device SkySaver for descending heights up to 80 meters with 3 different rescue harness versions of company SkySaver Inc. has passed all the physical tests per:

- DIN EN 341:2011, type 1, class D- Personal Fall Protection Equipment-Descender devices for rescue
- DIN EN 1497:2007 – Personal Fall Protection Equipment-Rescue Harnesses

After documentation and manual is finalized certification process can proceed.

Yours sincerely,

TÜV SÜD PRODUCT SERVICE GMBH

CPS-CS4

Expert

Volker Kron



Product Service

EC-Type Examination Certificate

No. P5 17 09 02292 001

Holder of Certificate: SkySaver Rescue Ltd.

1 Ha-Marpe Street, Har Hozvim
9777401 Jerusalem
ISRAEL

Product: PPE against fall from a height
Descender device EN 341 Class D

Model(s): SkySaver Personal Rescue Device

Parameters:

Type:	automatic descender device conform to EN 341:2011, class 1D; with integrated rescue harness EN 1497: 2007 in 3 versions (F, F1, G); in 3 different wire rope lengths: 30 m, 50 m, 80 m;
Function:	Descender device for descending in an emergency case; speed regulation by centrifugal brake driven by planetary gear;
Dimensions descender:	l x w x h: 335 mm x 245 mm x 90 mm;
Construction:	descending device with Aluminium drum for steel wire rope with integrated planetary gear and centrifugal brake; transmission: 18 x (3 x 38) x 96 teeth; drum fixed on a stainless steel back plate with 6 fixation slots for rescue harness webbing;
Descending rope:	Ø3 mm galvanized steel wire rope; 1 x 19, 1770 N/mm ² End Termination for attachment: pressed ferrule eye with connector EN 362 – alternative connectors conform to EN 362 are possible; End Termination rope end: pressed ferrule;
More Parameters:	see Annex

This EC-Type Examination Certificate is issued according to Article 10 of Council Directive 89/686/EEC for personal protective equipment as classified in Article 8 (PPE of category 3). It confirms that the listed product fulfills the basic requirements as specified in Annex II of the Directive. This certificate refers only to the sample submitted to TÜV SÜD Product Service GmbH for testing and certification and on its technical documentation. See also notes overleaf.

Test report no.: 713115575 / 713071535
Valid until: 2022-03-05

Date, 2017-10-18 (Matthias Völz)

TÜV SÜD Product Service GmbH is Notified Body according to Council Directive 89/686/EEC for personal protective equipment, notified by publication in the Official Journal of the EC No. C 203/44 dated July 07th, 1994 with identification No. 0123.

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Product Service

Anlage zu EG-Baumusterprüfbescheinigung

Nr.: P5 17 09 02292 001

SkySaver Personal Rescue Device:

Rettungsgurt: integriert in Abseilgerät; Basisrettungsgurt aus 45 mm breitem PES-Band und PES-Gewebe mit Polstern in 3 Versionen erstellt: G, F, F1; Bandenden doppelt gelegt und vernäht; Tasche für Abseilgerät mit 6 45 mm PES-Band-Fixierungen mit Stahlschnallen;
-Version F: mit COBRA-Schnallen an Hüfte, Brust, Schultern und Beinen; Gewicht 2,246 kg;
-Version F1: mit COBRA-Schnallen an Hüfte; Slide-Block-Schnallen an Schulter und Beinen; Click-Lock-Schnalle an Brust mit 26 mm-Band; Gewicht: 2,136 kg;
-Version G: mit Slide-Block-Schnallen an Schulterbändern, Beinschlaufen Hüftgurt; Double-Click-Lock-Schnalle im Zentrum; Click-Lock-Schnalle an Brust mit 26 mm-Band; rote Einstellbänder; mit 2 Stahl-D-Ringen Durchmesser 7,5 mm an Beinschlaufen und Stahl-D-Ringen Durchmesser 7,5 mm an Schultergurten; Gewicht: 2,456 kg;

Abseillast: 30 – 120 kg

Max. zulässige Abseilgeschwindigkeit: 2 m/s

Max. geprüfte Abseilhöhe: 80 m/ 1 Abseilvorgang

Min. Temperatur: -4°C

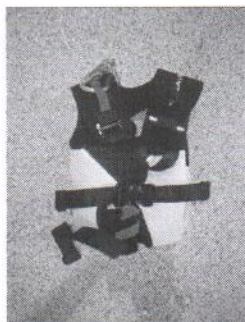
Kennzeichnung: Hersteller, Typ, CE-Kennzeichnung, ebrauchsanweisung beachten“- Piktogramm, Seriennummer, EN 341 Typ1, Klasse D; max. Abseillast und Abseilhöhe; “Nur für einmalige Benutzung“;

Karabiner zu Struktur: direktionaler Aluminium-Schnapperkarabiner EN 362, Typ N-503; EN 795 Anker in M12 von CT;

Gewicht: 11,469 kg (50 m-Version, Rettungsgurt Version f1)



von hinten (50 m-Version)



von vorne (50 m-Version)



im Test



Product Service

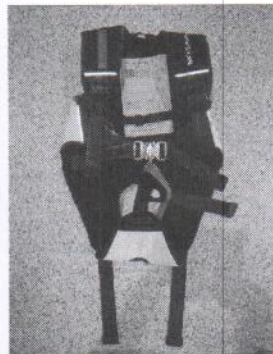
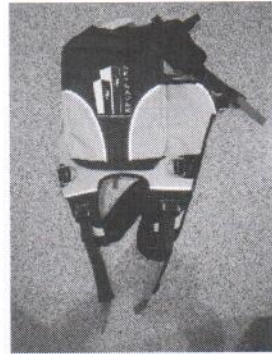
ZERTIFIKAT ◆ CERTIFICATE ◆ 認 證 證 書 ◆ CERTIFICADO ◆ CERTIFIKAT ◆ CERTIFICAT



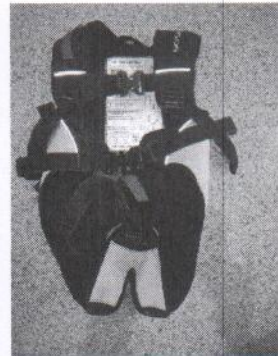
Offene Abdeckung mit Seiltrommel



Rettungsgurt Modell G



Rettungsgurt Modell F1



Rettungsgurt Modell F



Abteilung:
Datum:

GARTCP / M. Völz
2017-10-18

Seite 3 von 3

Test Report



Gravitec Systems Inc.
21291 Urdahl Road NW
Poulsbo, WA 98370



Test Report #: 210142-AHD-01
Service Address: Gravitec Systems Inc.
21291 Urdahl Road NW
Poulsbo, WA 98370

Customer Contact: Avner Farkash
Client Name: SkySaver, Inc.
Client Address: 729 Ocean Parkway
Brooklyn, NY 11230

Test Sample Information

Manufacturer: SkySaver, Inc.
Model/Part #: Series "C"
Lot/Batch #: Sept-2015
Serial #: C-01 (assigned)
Description: Evacuation harness featuring a metal mounting plate in the dorsal area for attachment of automatic descender

Harness Type	
<input checked="" type="checkbox"/>	Evacuation Harness
<input type="checkbox"/>	Full Body Harness

<input type="checkbox"/>	Qualification Testing
<input type="checkbox"/>	Verification Testing
<input checked="" type="checkbox"/>	Informational Testing

Per ANSI Z359.7, Qualification Testing is initial testing conducted on new or revised products consisting of a minimum of 3 test samples. Verification Testing consists of a minimum of 1 sample and is intended to ensure continued product compliance for an existing product that has gone through Qualification Testing in the past.

Sample Receipt Date: 8/31/2015
Sampling Details: Black harness, Heavy wt webbing, Cobra T-buckle, AustriAlpin webbing adjusters, Plastic chest buckle
(Deviations and Condition) Sample received in new and good working condition. No previous tests performed on this sample.

Test Information

Testing Method (Standard and Section): ANSI Z359.4-2013, 4.3.1.2 Dynamic Performance Testing

1. Tests for dorsal, sternal, and frontal attachment elements are summarized below. A new FBH may be used for each test. The drop test structure, test torso, test lanyard of 4 foot (1.2m) length and quick release mechanism shall be in accordance with 4.1.1, 4.1.3, 4.1.5, and 4.1.9 respectively.
2. The test sample shall be put on the test torso as though the torso was a person and adjusted for a snug fit.
3. Attach one end of the test lanyard to the appropriate attachment element of the sample and the other end to the test structure.
4. Raise the test torso to a level, which will allow a 2 foot (0.6m) free fall upon release of the test torso. The torso shall be lifted to a point no more than 12 inches (305mm) horizontally from the anchorage.
5. Release the torso with the quick release mechanism.
6. After the drop, the torso is to remain suspended for a period of one minute.
7. During the post fall suspension period, measure the angle at rest. After test, evaluate the sample according to 3.2.2.1.3 or 3.2.2.2.6 as appropriate.

Acceptance Criteria: ANSI Z359.4-2013, 3.2.2.1.3 Full Body Harness Dynamic Performance

For harness attachment elements designated by the manufacturer as suitable for rescue purposes:

1. The harness shall not release the test torso.
2. No load bearing element shall break or separate from the harness.
3. The test torso shall remain suspended for one minute after the test.
4. The rest angle between the torso vertical centerline and the vertical shall not exceed 30 degrees after the torso comes to a rest.

Gravitec Test Procedure ID: TP ANSI Z359.11-2014, 4.3.3 DPT FT-1st FBH

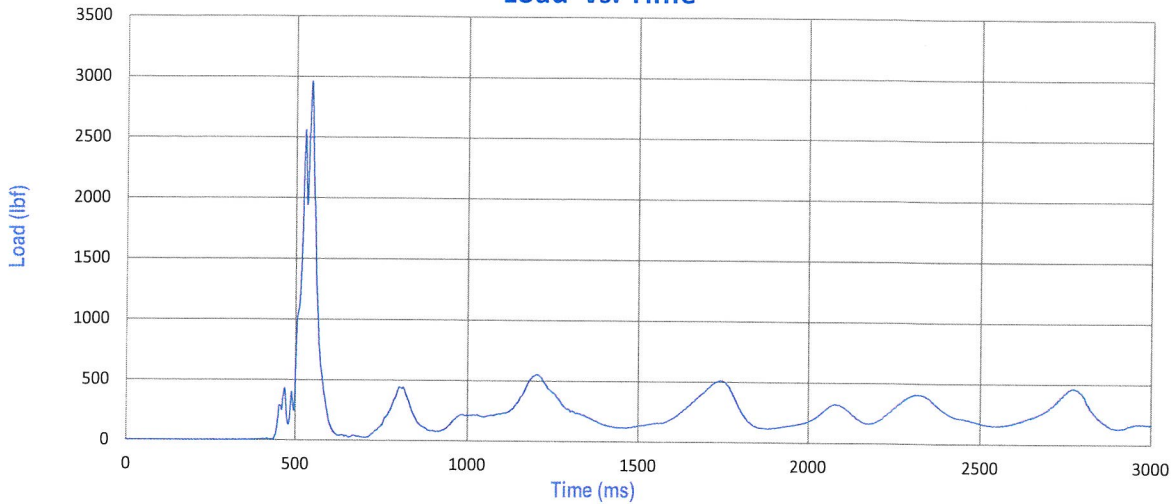
Job #: 210142	Test Weight (lbs): 220	Test Date: 11/2/2015
Test Code: AHD	Free Fall (in): 24	Time: 2:39 PM
Test ID #: 1	Load Cell: Lab 1- 5 K_00_191924	Temp. (°F): 71
File Name: 210142-AHD-01	DAQ Module: 1445A1C	Humidity (%): 51

Test Instrumentation

ANSI Compliant Test Structure, ANSI Compliant 220 lbs Test Torso, 5k Load Cell/Data Acquisition System, Quick Release Mechanism, ANSI Compliant Test Cable Lanyard, Portable Floor Scale, Zip Level, Digital Protractor, Digital Timer, Digital Thermometer, 1/2" Shackles, Miscellaneous Connecting Hardware

Drop Test Results

Load vs. Time



	<u>Acceptance Criteria</u>	<u>Test Results</u>	<u>Exp. Uncertainty</u>	<u>Pass/Fail</u>
Torso Release:	Not Released	Not Released	---	PASS
Load Bearing Breakage or Separation:	No Breakage or Separation	No Breakage or Separation	---	PASS
Post Fall Support (Seconds):	60 Seconds or More	60 Seconds or More	0.02	PASS
Angle at Rest (Degrees):	Less Than 30 Degrees	19.4	± 0.8	PASS
Max Arresting Force (lbf):	None, Informational Only	2961.9	± 6.9	N/A

Test Comments/Notes:

None

Opinions and Interpretations:

None

Manager Name: Dave Lough

Signature:

Date: 11/11/15

Engineer Name: Larry Cimino

Signature:

Date: 11-11-2015

The results of this test only apply to the item tested.
All instrumentation used in testing is traceable to NIST.

Reported uncertainties represent expanded uncertainties expressed at approximately the 95% level of confidence using a coverage factor of k=2. Where limits of acceptability are applicable, false accept risk is limited to 2% or less by guard-banding the limit of acceptability with the expanded uncertainty value.

This laboratory is accredited to ISO 17025 by ACLASS ANSI-ASQ National Accreditation Board for tests conducted under its scope of accreditation.

The contents of this test report are confidential. This information should NOT to be shared or reproduced except in full, without written approval from Gravitec Systems Inc.



Testing to the clauses referenced in this report does not infer compliance to the ANSI Z359 standard in its entirety.



Test Report



Gravitec Systems Inc.
21291 Urdahl Road NW
Poulsbo, WA 98370



Test Report #: 210142-AHD-02
Service Address: Gravitec Systems Inc.
21291 Urdahl Road NW
Poulsbo, WA 98370

Customer Contact: Avner Farkash
Client Name: SkySaver, Inc.
Client Address: 729 Ocean Parkway
Brooklyn, NY 11230

Test Sample Information

Manufacturer: SkySaver, Inc.
Model/Part #: Series "D"
Lot/Batch #: Sept-2015
Serial #: D-01 (assigned)
Description: Evacuation harness featuring a metal mounting plate in the dorsal area for attachment of automatic descender

Harness Type	
<input checked="" type="checkbox"/>	Evacuation Harness
<input type="checkbox"/>	Full Body Harness

<input type="checkbox"/>	Qualification Testing
<input type="checkbox"/>	Verification Testing
<input checked="" type="checkbox"/>	Informational Testing

Per ANSI Z359.7, Qualification Testing is initial testing conducted on new or revised products consisting of a minimum of 3 test samples. Verification Testing consists of a minimum of 1 sample and is intended to ensure continued product compliance for an existing product that has gone through Qualification Testing in the past.

Sample Receipt Date: 8/31/2015
Sampling Details: Yellow-green harness, Heavy wt webbing, Taiwan
(Deviations and Condition) T-buckle, 2-part chrome adjusters, Silver chest buckle, Shoulder D-rings.

Sample received in new and good working condition. No previous tests performed on this sample.

Test Information

Testing Method (Standard and Section): ANSI Z359.4-2013, 4.3.1.2 Dynamic Performance Testing

1. Tests for dorsal, sternal, and frontal attachment elements are summarized below. A new FBH may be used for each test. The drop test structure, test torso, test lanyard of 4 foot (1.2m) length and quick release mechanism shall be in accordance with 4.1.1, 4.1.3, 4.1.5, and 4.1.9 respectively.
2. The test sample shall be put on the test torso as though the torso was a person and adjusted for a snug fit.
3. Attach one end of the test lanyard to the appropriate attachment element of the sample and the other end to the test structure.
4. Raise the test torso to a level, which will allow a 2 foot (0.6m) free fall upon release of the test torso. The torso shall be lifted to a point no more than 12 inches (305mm) horizontally from the anchorage.
5. Release the torso with the quick release mechanism.
6. After the drop, the torso is to remain suspended for a period of one minute.
7. During the post fall suspension period, measure the angle at rest. After test, evaluate the sample according to 3.2.2.1.3 or 3.2.2.2.6 as appropriate.

Acceptance Criteria: ANSI Z359.4-2013, 3.2.2.1.3 Full Body Harness Dynamic Performance

For harness attachment elements designated by the manufacturer as suitable for rescue purposes:

1. The harness shall not release the test torso.
2. No load bearing element shall break or separate from the harness.
3. The test torso shall remain suspended for one minute after the test.
4. The rest angle between the torso vertical centerline and the vertical shall not exceed 30 degrees after the torso comes to a rest.

Gravitec Test Procedure ID: TP ANSI Z359.11-2014, 4.3.3 DPT FT-1st FBH

Job #: 210142
Test Code: AHD
Test ID #: 2
File Name: 210142-AHD-02

Test Weight (lbs): 220
Free Fall (in): 24
Load Cell: Lab 1- 5 K_00_191924
DAQ Module: 1445A1C

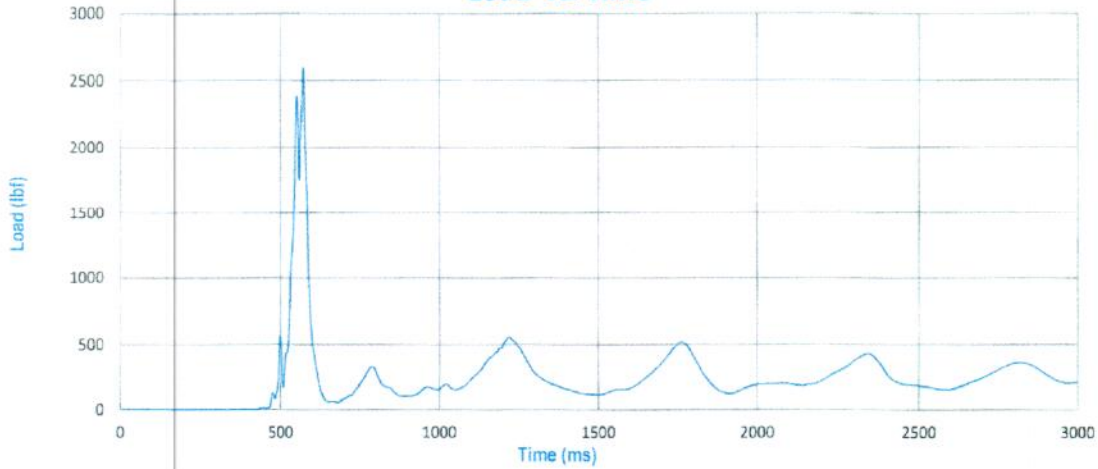
Test Date: 11/2/2015
Time: 4:29 PM
Temp. (°F): 70
Humidity (%): 49

Test Instrumentation

ANSI Compliant Test Structure, ANSI Compliant 220 lbs Test Torso, 5k Load Cell/Data Acquisition System, Quick Release Mechanism, ANSI Compliant Test Cable Lanyard, Portable Floor Scale, Zip Level, Digital Protractor, Digital Timer, Digital Thermometer, 1/2" Shackles, Miscellaneous Connecting Hardware

Drop Test Results

Load vs. Time



	Acceptance Criteria	Test Results	Exp. Uncertainty	Pass/Fail
Torso Release:	Not Released	Not Released	---	PASS
Load Bearing Breakage or Separation:	No Breakage or Separation	No Breakage or Separation	---	PASS
Post Fall Support (Seconds):	60 Seconds or More	60 Seconds or More	0.02	PASS
Angle at Rest (Degrees):	Less Than 30 Degrees	20.7	± 0.8	PASS
Max Arresting Force (lbf):	None, Informational Only	2592.3	± 6.9	N/A

Test Comments/Notes:
Shoulder D-rings not tested.

Opinions and Interpretations:
None

Manager Name: Dave Lough

Signature: **Date:** 11/11/15

Engineer Name: Larry Cimino

Signature: **Date:** 11-11-2015

The results of this test only apply to the item tested.
All instrumentation used in testing is traceable to NIST.

Reported uncertainties represent expanded uncertainties expressed at approximately the 95% level of confidence using a coverage factor of k=2. Where limits of acceptability are applicable, false accept risk is limited to 2% or less by guard-banding the limit of acceptability with the expanded uncertainty value.

This laboratory is accredited to ISO 17025 by ACLASS ANSI-ASQ National Accreditation Board for tests conducted under its scope of accreditation.

The contents of this test report are confidential. This information should NOT be shared or reproduced except in full, without written approval from Gravitec Systems Inc.



Testing to the clauses referenced in this report does not infer compliance to the ANSI Z359 standard in its entirety.



Test Report



Gravitec Systems Inc.
21291 Urdahl Road NW
Poulsbo, WA 98370



Test Report #: 210142-AHD-03
Service Address: Gravitec Systems Inc.
21291 Urdahl Road NW
Poulsbo, WA 98370

Customer Contact: Avner Farkash
Client Name: SkySaver, Inc.
Client Address: 729 Ocean Parkway
Brooklyn, NY 11230

Test Sample Information

Manufacturer: SkySaver, Inc.
Model/Part #: Series "E"
Lot/Batch #: Sept-2015
Serial #: E-01 (assigned)
Description: Evacuation harness featuring a metal mounting plate in the dorsal area for attachment of automatic descender

Harness Type	
<input checked="" type="checkbox"/>	Evacuation Harness
<input type="checkbox"/>	Full Body Harness

<input type="checkbox"/>	Qualification Testing
<input type="checkbox"/>	Verification Testing
<input checked="" type="checkbox"/>	Informational Testing

Per ANSI Z359.7, Qualification Testing is initial testing conducted on new or revised products consisting of a minimum of 3 test samples. Verification Testing consists of a minimum of 1 sample and is intended to ensure continued product compliance for an existing product that has gone through Qualification Testing in the past.

Sample Receipt Date: 8/31/2015
Sampling Details: Bright green harness, Heavy wt webbing, Hook and ring
(Deviations and Condition) T-connection, AustriAlpin webbing adjusters, AustriAlpin chest buckle.
Sample received in new and good working condition. No previous tests performed on this sample.

Test Information

Testing Method (Standard and Section): ANSI Z359.4-2013, 4.3.1.2 Dynamic Performance Testing

1. Tests for dorsal, sternal, and frontal attachment elements are summarized below. A new FBH may be used for each test. The drop test structure, test torso, test lanyard of 4 foot (1.2m) length and quick release mechanism shall be in accordance with 4.1.1, 4.1.3, 4.1.5, and 4.1.9 respectively.
2. The test sample shall be put on the test torso as though the torso was a person and adjusted for a snug fit.
3. Attach one end of the test lanyard to the appropriate attachment element of the sample and the other end to the test structure.
4. Raise the test torso to a level, which will allow a 2 foot (0.6m) free fall upon release of the test torso. The torso shall be lifted to a point no more than 12 inches (305mm) horizontally from the anchorage.
5. Release the torso with the quick release mechanism.
6. After the drop, the torso is to remain suspended for a period of one minute.
7. During the post fall suspension period, measure the angle at rest. After test, evaluate the sample according to 3.2.2.1.3 or 3.2.2.2.6 as appropriate.

Acceptance Criteria: ANSI Z359.4-2013, 3.2.2.1.3 Full Body Harness Dynamic Performance

For harness attachment elements designated by the manufacturer as suitable for rescue purposes:

1. The harness shall not release the test torso.
2. No load bearing element shall break or separate from the harness.
3. The test torso shall remain suspended for one minute after the test.
4. The rest angle between the torso vertical centerline and the vertical shall not exceed 30 degrees after the torso comes to a rest.

Gravitec Test Procedure ID: TP ANSI Z359.11-2014, 4.3.3 DPT FT-1st FBH

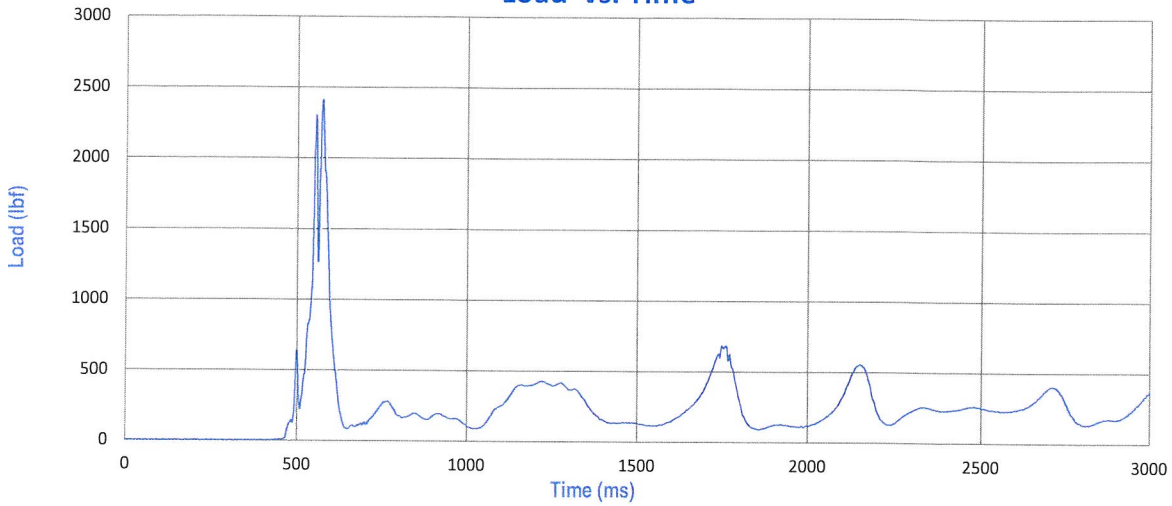
Job #: 210142	Test Weight (lbs): 220	Test Date: 11/3/2015
Test Code: AHD	Free Fall (in): 24	Time: 12:27 PM
Test ID #: 3	Load Cell: Lab 1- 5 K_00_191924	Temp. (° F): 70
File Name: 210142-AHD-03	DAQ Module: 1445A1C	Humidity (%): 49

Test Instrumentation

ANSI Compliant Test Structure, ANSI Compliant 220 lbs Test Torso, 5k Load Cell/Data Acquisition System, Quick Release Mechanism, ANSI Compliant Test Cable Lanyard, Portable Floor Scale, Zip Level, Digital Protractor, Digital Timer, Digital Thermometer, 1/2" Shackles, Miscellaneous Connecting Hardware

Drop Test Results

Load vs. Time



	<u>Acceptance Criteria</u>	<u>Test Results</u>	<u>Exp. Uncertainty</u>	<u>Pass/Fail</u>
Torso Release:	Not Released	Not Released	---	PASS
Load Bearing Breakage or Separation:	No Breakage or Separation	No Breakage or Separation	---	PASS
Post Fall Support (Seconds):	60 Seconds or More	60 Seconds or More	0.02	PASS
Angle at Rest (Degrees):	Less Than 30 Degrees	23.2	± 0.8	PASS
Max Arresting Force (lbf):	None, Informational Only	2414.4	± 6.9	N/A

Test Comments/Notes:

None

Opinions and Interpretations:

None

Manager Name: Dave Lough

Signature:

Date: 11/11/15

Engineer Name: Larry Cimino

Signature:

Date: 11-11-2015

The results of this test only apply to the item tested.
All instrumentation used in testing is traceable to NIST.

Reported uncertainties represent expanded uncertainties expressed at approximately the 95% level of confidence using a coverage factor of k=2. Where limits of acceptability are applicable, false accept risk is limited to 2% or less by guard-banding the limit of acceptability with the expanded uncertainty value.

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Testing to the clauses referenced in this report does not infer compliance to the ANSI Z359 standard in its entirety.



Test Report



Gravitec Systems Inc.
21291 Urdahl Road NW
Poulsbo, WA 98370



Test Report #: 210142-AHD-04
Service Address: Gravitec Systems Inc.
21291 Urdahl Road NW
Poulsbo, WA 98370

Customer Contact: Avner Farkash
Client Name: SkySaver, Inc.
Client Address: 729 Ocean Parkway
Brooklyn, NY 11230

Test Sample Information

Manufacturer: SkySaver, Inc.
Model/Part #: Series "F"
Lot/Batch #: Sept-2015
Serial #: F-01 (assigned)
Description: Evacuation harness featuring a metal mounting plate in the dorsal area for attachment of automatic descender

Harness Type	
<input checked="" type="checkbox"/>	Evacuation Harness
<input type="checkbox"/>	Full Body Harness

<input type="checkbox"/>	Qualification Testing
<input type="checkbox"/>	Verification Testing
<input checked="" type="checkbox"/>	Informational Testing

Per ANSI Z359.7, Qualification Testing is initial testing conducted on new or revised products consisting of a minimum of 3 test samples. Verification Testing consists of a minimum of 1 sample and is intended to ensure continued product compliance for an existing product that has gone through Qualification Testing in the past.

Sample Receipt Date: 9/25/2015
Sampling Details: Bright green harness, Heavy wt webbing, Cobra T-buckle
(Deviations and Condition) AustiAlpin webbing adjusters, Cobra chest buckle
Sample received in new and good working condition. No previous tests performed on this sample.

Test Information

Testing Method (Standard and Section): ANSI Z359.4-2013, 4.3.1.2 Dynamic Performance Testing

1. Tests for dorsal, sternal, and frontal attachment elements are summarized below. A new FBH may be used for each test. The drop test structure, test torso, test lanyard of 4 foot (1.2m) length and quick release mechanism shall be in accordance with 4.1.1, 4.1.3, 4.1.5, and 4.1.9 respectively.
2. The test sample shall be put on the test torso as though the torso was a person and adjusted for a snug fit.
3. Attach one end of the test lanyard to the appropriate attachment element of the sample and the other end to the test structure.
4. Raise the test torso to a level, which will allow a 2 foot (0.6m) free fall upon release of the test torso. The torso shall be lifted to a point no more than 12 inches (305mm) horizontally from the anchorage.
5. Release the torso with the quick release mechanism.
6. After the drop, the torso is to remain suspended for a period of one minute.
7. During the post fall suspension period, measure the angle at rest. After test, evaluate the sample according to 3.2.2.1.3 or 3.2.2.2.6 as appropriate.

Acceptance Criteria: ANSI Z359.4-2013, 3.2.2.1.3 Full Body Harness Dynamic Performance

For harness attachment elements designated by the manufacturer as suitable for rescue purposes:

1. The harness shall not release the test torso.
2. No load bearing element shall break or separate from the harness.
3. The test torso shall remain suspended for one minute after the test.
4. The rest angle between the torso vertical centerline and the vertical shall not exceed 30 degrees after the torso comes to a rest.

Gravitec Test Procedure ID: TP ANSI Z359.11-2014, 4.3.3 DPT FT-1st FBH

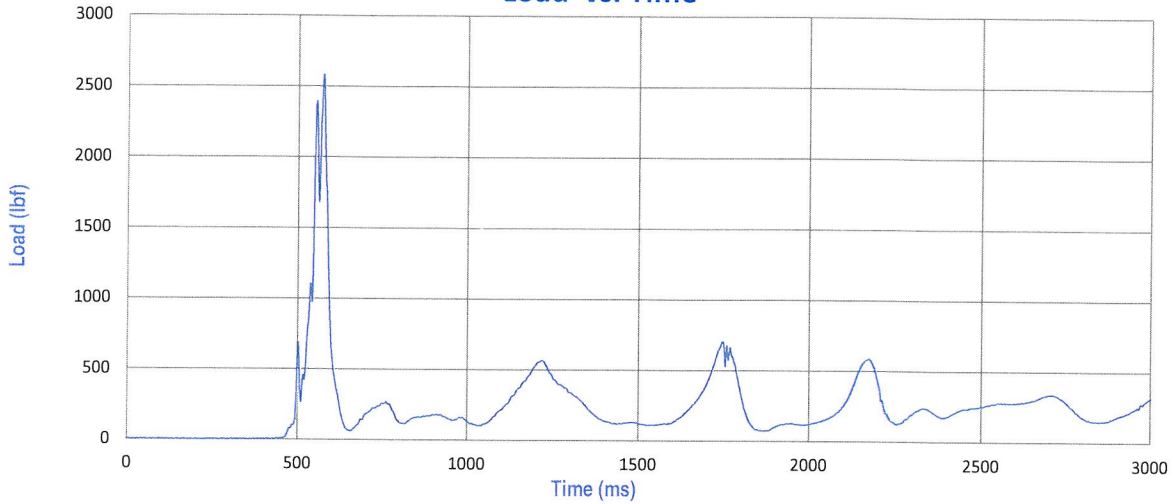
Job #: 210142	Test Weight (lbs): 220	Test Date: 11/3/2015
Test Code: AHD	Free Fall (in): 24	Time: 11:26 AM
Test ID #: 4	Load Cell: Lab 1- 5 K_00_191924	Temp. (°F): 70
File Name: 210142-AHD-04	DAQ Module: 1445A1C	Humidity (%): 49

Test Instrumentation

ANSI Compliant Test Structure, ANSI Compliant 220 lbs Test Torso, 5k Load Cell/Data Acquisition System, Quick Release Mechanism, ANSI Compliant Test Cable Lanyard, Portable Floor Scale, Zip Level, Digital Protractor, Digital Timer, Digital Thermometer, 1/2" Shackles, Miscellaneous Connecting Hardware

Drop Test Results

Load vs. Time



	<u>Acceptance Criteria</u>	<u>Test Results</u>	<u>Exp. Uncertainty</u>	<u>Pass/Fail</u>
Torso Release:	Not Released	Not Released	---	PASS
Load Bearing Breakage or Separation:	No Breakage or Separation	No Breakage or Separation	---	PASS
Post Fall Support (Seconds):	60 Seconds or More	60 Seconds or More	0.02	PASS
Angle at Rest (Degrees):	Less Than 30 Degrees	23.3	± 0.8	PASS
Max Arresting Force (lbf):	None, Informational Only	2581.0	± 6.9	N/A

Test Comments/Notes:

None

Opinions and Interpretations:

None

Manager Name: Dave Lough

Signature:

Date: 11/11/15

Engineer Name: Larry Cimino

Signature:

Date: 11-11-2015

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Test Report



Gravitec Systems Inc.
21291 Urdahl Road NW
Poulsbo, WA 98370



Test Report #: 210142-AHS-05
Service Address: Gravitec Systems Inc.
21291 Urdahl Road NW
Poulsbo, WA 98370

Customer Contact: Avner Farkash
Client Name: SkySaver, Inc.
Client Address: 729 Ocean Parkway
Brooklyn, NY 11230

Test Sample Information

Manufacturer: SkySaver, Inc.
Model/Part #: Series "C"
Lot/Batch #: Sept-2015
Serial #: C-02 (assigned)
Description: Evacuation harness featuring a metal mounting plate in the dorsal area for attachment of automatic descender

Harness Type	
<input checked="" type="checkbox"/>	Evacuation Harness
<input type="checkbox"/>	Full Body Harness

<input type="checkbox"/>	Qualification Testing
<input type="checkbox"/>	Verification Testing
<input checked="" type="checkbox"/>	Informational Testing

Per ANSI Z359.7, Qualification Testing is initial testing conducted on new or revised products consisting of a minimum of 3 test samples. Verification Testing consists of a minimum of 1 sample and is intended to ensure continued product compliance for an existing product that has gone through Qualification Testing in the past.

Sample Receipt Date: 8/31/2015
Sampling Details: Black harness, Heavy wt webbing, Cobra T-buckle, AustriAlpin webbing adjusters, Plastic chest buckle.
(Deviations and Condition) Sample received in new and good working condition. No previous tests performed on this sample.

Test Information

Testing Method (Standard and Section): ANSI Z359.4-2013, 4.3.1.1 Static Strength Test

1. The test torso and static tensile strength test equipment shall be as specified in 4.1.9 and 4.1.6 respectively.
2. The test sample shall be put on the test torso as though the torso was a person and adjusted for a snug fit.
3. The test torso shall be anchored by its crotch ring.
4. Using the static tensile test equipment, a load of 3,600 pounds (16kN) shall be applied to the test sample via the connection point(s) in the direction simulating a rescue.
5. Maintain the load for a period of one minute.
6. Release the load and evaluate the sample in accordance with 3.2.2.1.2 or 3.2.2.2.5 as applicable before removing the sample from the

Acceptance Criteria: ANSI Z359.4-2013, 3.2.2.2.5 Static Strength - Evacuation Harness

For harness attachment elements designated by the manufacturer as suitable for rescue purposes:

1. The harness shall not release the test torso.
2. No load bearing element shall break or separate from the harness.

Gravitec Test Procedure ID: TP ANSI Z359.4-2013, 4.3.1.1 SST HAR Rescue

Job #: 210142
Test Code: AHS
Test ID #: 5
File Name: 210142-AHS-05

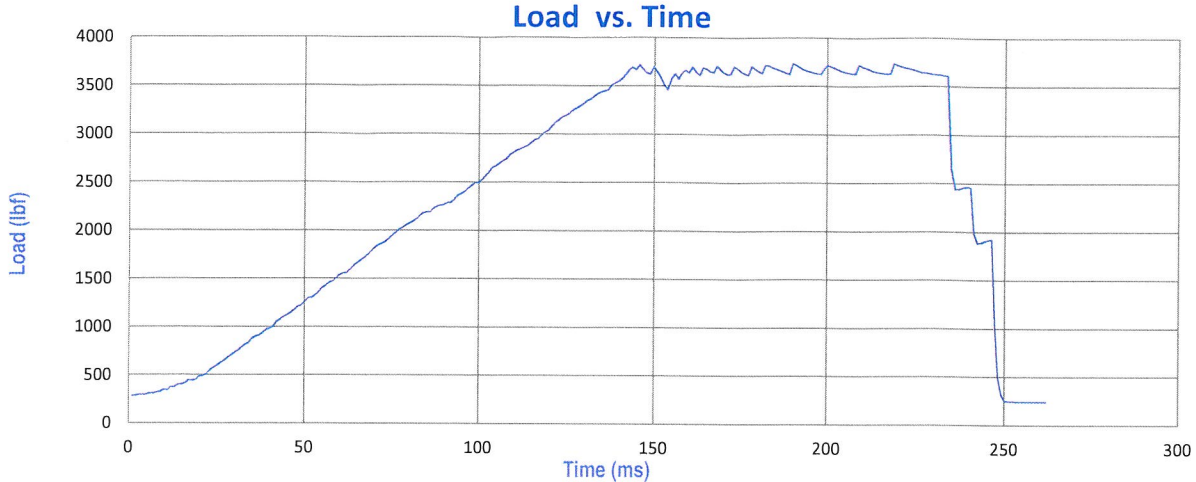
Load Cell: Lab1 - SN191924
DAQ Module: 1445A1C

Test Date: 11/4/2015
Time: 2:03 PM
Temp. (°F): 72
Humidity (%): 45

Test Instrumentation

ANSI Compliant Test Structure, 5k Load Cell/Data Acquisition System, ANSI Compliant 220 lbs ± 2 lbs Test Torso, Portable Floor Scale, Digital Timer, Digital Thermometer, miscellaneous connecting hardware

Drop Test Results



	<u>Acceptance Criteria</u>	<u>Test Results</u>	<u>Exp. Uncertainty</u>	<u>Pass/Fail</u>
Static Force (lbf):	3600 Minimum	3609.5	± 6.7 lbs	PASS
Static Force (sec):	60 Minimum	70	± 1 sec	PASS
Torso Release:	Not Released	Not Released	---	PASS
Load Bearing Breakage or Separation:	No Breakage or Separation	No Breakage or Separation*	---	PASS

Test Comments/Notes:

* Although damage occurred to the webbing, the webbing did not break or separate from the harness. The mid-section webbing (that connects between the center slots in the back plate and the horizontal tabs of the "T" buckle) was cut 70% through its width by one of the back plate slots. On this test sample, the slot was partially lined with a length of slotted rubber and this protective rubber fitting was also damaged.

Opinions and Interpretations:

None

Manager Name: Dave Lough

Signature: **Date:** 11/11/15

Engineer Name: Larry Cimino

Signature: **Date:** 11-11-2015

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Test Report



Gravitec Systems Inc.
21291 Urdahl Road NW
Poulsbo, WA 98370



Test Report #: 210142-AHS-06
Service Address: Gravitec Systems Inc.
21291 Urdahl Road NW
Poulsbo, WA 98370

Customer Contact: Avner Farkash
Client Name: SkySaver, Inc.
Client Address: 729 Ocean Parkway
Brooklyn, NY 11230

Test Sample Information

Manufacturer: SkySaver, Inc.
Model/Part #: Series "D"
Lot/Batch #: Sept-2015
Serial #: D-02 (assigned)
Description: Evacuation harness featuring a metal mounting plate in the dorsal area for attachment of automatic descender

Harness Type	
<input checked="" type="checkbox"/>	Evacuation Harness
<input type="checkbox"/>	Full Body Harness

<input type="checkbox"/>	Qualification Testing
<input type="checkbox"/>	Verification Testing
<input checked="" type="checkbox"/>	Informational Testing

Per ANSI Z359.7, Qualification Testing is initial testing conducted on new or revised products consisting of a minimum of 3 test samples. Verification Testing consists of a minimum of 1 sample and is intended to ensure continued product compliance for an existing product that has gone through Qualification Testing in the past.

Sample Receipt Date: 8/31/2015
Sampling Details: Yellow-green harness, Heavy wt webbing, Taiwan
(Deviations and Condition) T-buckle, 2-part chrome adjusters, Silver chest buckle, Shoulder D-rings.
Sample received in new and good working condition. No previous tests performed on this sample.

Test Information

Testing Method (Standard and Section): ANSI Z359.4-2013, 4.3.1.1 Static Strength Test

1. The test torso and static tensile strength test equipment shall be as specified in 4.1.9 and 4.1.6 respectively.
2. The test sample shall be put on the test torso as though the torso was a person and adjusted for a snug fit.
3. The test torso shall be anchored by its crotch ring.
4. Using the static tensile test equipment, a load of 3,600 pounds (16kN) shall be applied to the test sample via the connection point(s) in the direction simulating a rescue.
5. Maintain the load for a period of one minute.
6. Release the load and evaluate the sample in accordance with 3.2.2.1.2 or 3.2.2.2.5 as applicable before removing the sample from the

Acceptance Criteria: ANSI Z359.4-2013, 3.2.2.2.5 Static Strength - Evacuation Harness

For harness attachment elements designated by the manufacturer as suitable for rescue purposes:

1. The harness shall not release the test torso.
2. No load bearing element shall break or separate from the harness.

Gravitec Test Procedure ID: TP ANSI Z359.4-2013, 4.3.1.1 SST HAR Rescue

Job #: 210142
Test Code: AHS
Test ID #: 6
File Name: 210142-AHS-06

Load Cell: Lab1 - SN191924
DAQ Module: 1445A1C

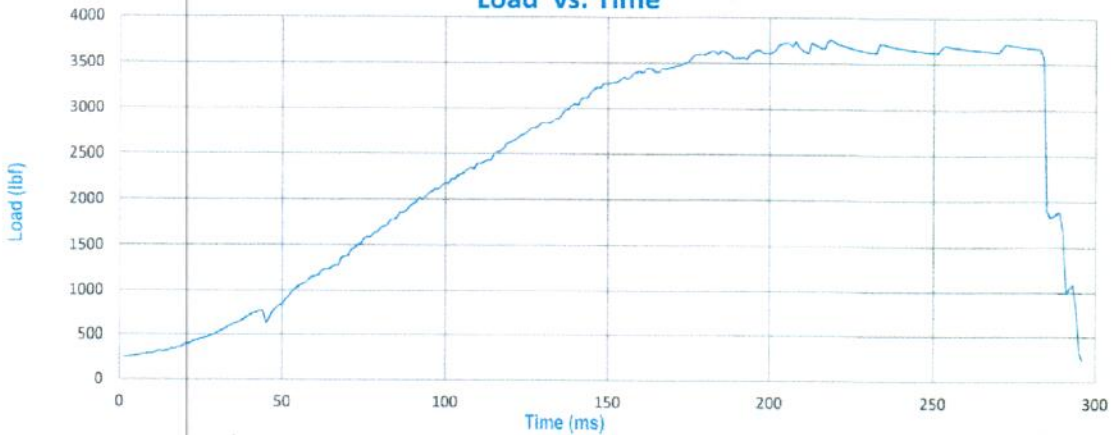
Test Date: 11/5/2015
Time: 8:46 AM
Temp. (°F): 72
Humidity (%): 45

Test Instrumentation

ANSI Compliant Test Structure, 5k Load Cell/Data Acquisition System, ANSI Compliant 220 lbs ± 2 lbs Test Torso, Portable Floor Scale, Digital Timer, Digital Thermometer, miscellaneous connecting hardware

Drop Test Results

Load vs. Time



	<u>Acceptance Criteria</u>	<u>Test Results</u>	<u>Exp. Uncertainty</u>	<u>Pass/Fail</u>
Static Force (lbf):	3600 Minimum	3620.5	± 6.7 lbs	PASS
Static Force (sec):	60 Minimum	85	± 1 sec	PASS
Torso Release:	Not Released	Not Released	---	PASS
Load Bearing Breakage or Separation:	No Breakage or Separation	No Breakage or Separation	---	PASS

Test Comments/Notes:

The mid-level webbing on the front, right-side adjuster slipped approximately 4-1/4 inches to the end of the strap with slippage through the adjuster halted by the folded and stitched end of the strap. Other adjusters had minimal to 1/4 inch of slippage. The webbing was not cut at the back plate slots. On this sample the slots were partially lined with a wrapping of tape. Shoulder D-rings not tested.

Opinions and Interpretations:

None

Manager Name: Dave Lough

Signature: Date: 11/11/15

Engineer Name: Larry Cimino

Signature: Date: 11-11-2015

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Test Report



Gravitec Systems Inc.
21291 Urdahl Road NW
Poulsbo, WA 98370



Test Report #: 210142-AHS-07
Service Address: Gravitec Systems Inc.
21291 Urdahl Road NW
Poulsbo, WA 98370

Customer Contact: Avner Farkash
Client Name: SkySaver, Inc.
Client Address: 729 Ocean Parkway
Brooklyn, NY 11230

Test Sample Information

Manufacturer: SkySaver, Inc.
Model/Part #: Series "E"
Lot/Batch #: Sept-2015
Serial #: E-01 (assigned)
Description: Evacuation harness featuring a metal mounting plate in the dorsal area for attachment of automatic descender

Harness Type	
<input checked="" type="checkbox"/>	Evacuation Harness
<input type="checkbox"/>	Full Body Harness

<input type="checkbox"/>	Qualification Testing
<input type="checkbox"/>	Verification Testing
<input checked="" type="checkbox"/>	Informational Testing

Per ANSI Z359.7, Qualification Testing is initial testing conducted on new or revised products consisting of a minimum of 3 test samples. Verification Testing consists of a minimum of 1 sample and is intended to ensure continued product compliance for an existing product that has gone through Qualification Testing in the past.

Sample Receipt Date: 8/31/2015
Sampling Details: Bright green harness, Heavy wt webbing, Hook and ring
(Deviations and Condition) T-connection, AustriAlpin webbing adjusters, AustriAlpin chest buckle.
Dynamic testing per 4.3.1.2 was previously performed on this sample.

Test Information

Testing Method (Standard and Section): ANSI Z359.4-2013, 4.3.1.1 Static Strength Test

1. The test torso and static tensile strength test equipment shall be as specified in 4.1.9 and 4.1.6 respectively.
2. The test sample shall be put on the test torso as though the torso was a person and adjusted for a snug fit.
3. The test torso shall be anchored by its crotch ring.
4. Using the static tensile test equipment, a load of 3,600 pounds (16kN) shall be applied to the test sample via the connection point(s) in the direction simulating a rescue.
5. Maintain the load for a period of one minute.
6. Release the load and evaluate the sample in accordance with 3.2.2.1.2 or 3.2.2.2.5 as applicable before removing the sample from the

Acceptance Criteria: ANSI Z359.4-2013, 3.2.2.2.5 Static Strength - Evacuation Harness

For harness attachment elements designated by the manufacturer as suitable for rescue purposes:

1. The harness shall not release the test torso.
2. No load bearing element shall break or separate from the harness.

Gravitec Test Procedure ID: TP ANSI Z359.4-2013, 4.3.1.1 SST HAR Rescue

Job #: 210142
Test Code: AHS
Test ID #: 7
File Name: 210142-AHS-07

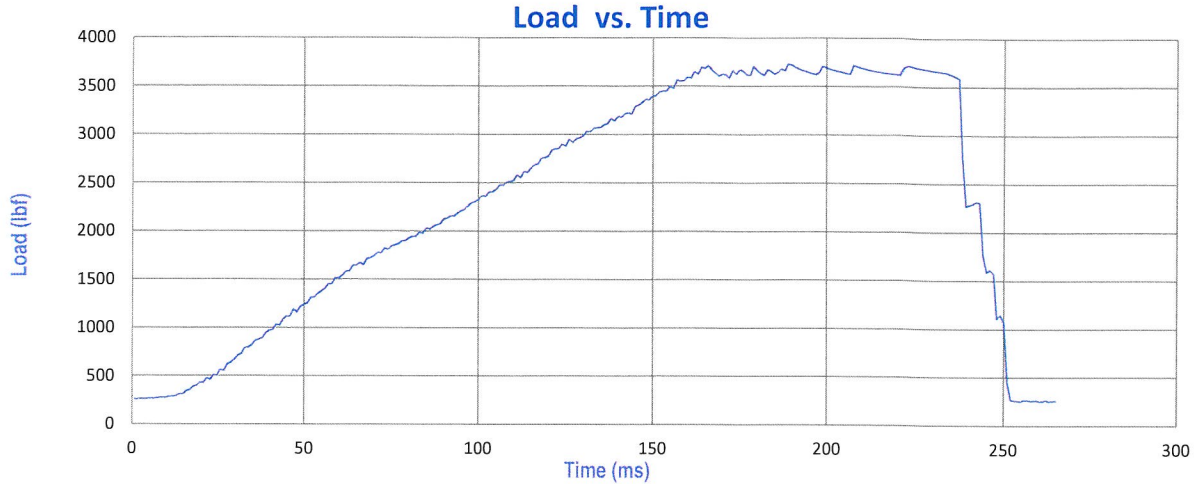
Load Cell: Lab1 - SN191924
DAQ Module: 1445A1C

Test Date: 11/4/2015
Time: 11:17 AM
Temp. (°F): 72
Humidity (%): 45

Test Instrumentation

ANSI Compliant Test Structure, 5k Load Cell/Data Acquisition System, ANSI Compliant 220 lbs ± 2 lbs Test Torso, Portable Floor Scale, Digital Timer, Digital Thermometer, miscellaneous connecting hardware

Drop Test Results



	<u>Acceptance Criteria</u>	<u>Test Results</u>	<u>Exp. Uncertainty</u>	<u>Pass/Fail</u>
Static Force (lbf):	3600 Minimum	3613.6	± 6.7 lbs	PASS
Static Force (sec):	60 Minimum	72	± 1 sec	PASS
Torso Release:	Not Released	Not Released	---	PASS
Load Bearing Breakage or Separation:	No Breakage or Separation	No Breakage or Separation*	---	PASS

Test Comments/Notes:

* Although damage occurred to the webbing, the webbing did not break or separate from the harness. The mid-section webbing (that connects between the center slots in the back plate and the horizontal tabs of the "T" buckle) was cut approximately 1/4 inch (15% through its width) by one of the back plate slots. On this sample the slots were partially lined with a wrapping of tape.

Opinions and Interpretations:

None

Manager Name: Dave Lough

Signature: **Date:** 11/11/15

Engineer Name: Larry Cimino

Signature: **Date:** 11-11-2015

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Test Report



Gravitec Systems Inc.
21291 Urdahl Road NW
Poulsbo, WA 98370



Test Report #: 210142-AHS-08
Service Address: Gravitec Systems Inc.
21291 Urdahl Road NW
Poulsbo, WA 98370

Customer Contact: Avner Farkash
Client Name: SkySaver, Inc.
Client Address: 729 Ocean Parkway
Brooklyn, NY 11230

Test Sample Information

Manufacturer: SkySaver, Inc.
Model/Part #: Series "F"
Lot/Batch #: Sept-2015
Serial #: F-02 (assigned)
Description: Evacuation harness featuring a metal mounting plate in the dorsal area for attachment of automatic descender

Harness Type	
<input checked="" type="checkbox"/>	Evacuation Harness
<input type="checkbox"/>	Full Body Harness

<input type="checkbox"/>	Qualification Testing
<input type="checkbox"/>	Verification Testing
<input checked="" type="checkbox"/>	Informational Testing

Per ANSI Z359.7, Qualification Testing is initial testing conducted on new or revised products consisting of a minimum of 3 test samples. Verification Testing consists of a minimum of 1 sample and is intended to ensure continued product compliance for an existing product that has gone through Qualification Testing in the past.

Sample Receipt Date: 9/25/2015
Sampling Details: Bright green harness, Heavy wt webbing, Cobra T-buckle, AustiAlpin webbing adjusters, Cobra chest buckle.
(Deviations and Condition) Sample received in new and good working condition. No previous tests performed on this sample.

Test Information

Testing Method (Standard and Section): ANSI Z359.4-2013, 4.3.1.1 Static Strength Test

1. The test torso and static tensile strength test equipment shall be as specified in 4.1.9 and 4.1.6 respectively.
2. The test sample shall be put on the test torso as though the torso was a person and adjusted for a snug fit.
3. The test torso shall be anchored by its crotch ring.
4. Using the static tensile test equipment, a load of 3,600 pounds (16kN) shall be applied to the test sample via the connection point(s) in the direction simulating a rescue.
5. Maintain the load for a period of one minute.
6. Release the load and evaluate the sample in accordance with 3.2.2.1.2 or 3.2.2.2.5 as applicable before removing the sample from the

Acceptance Criteria: ANSI Z359.4-2013, 3.2.2.2.5 Static Strength - Evacuation Harness

For harness attachment elements designated by the manufacturer as suitable for rescue purposes:

1. The harness shall not release the test torso.
2. No load bearing element shall break or separate from the harness.

Gravitec Test Procedure ID: TP ANSI Z359.4-2013, 4.3.1.1 SST HAR Rescue

Job #: 210142
Test Code: AHS
Test ID #: 8
File Name: 210142-AHS-08

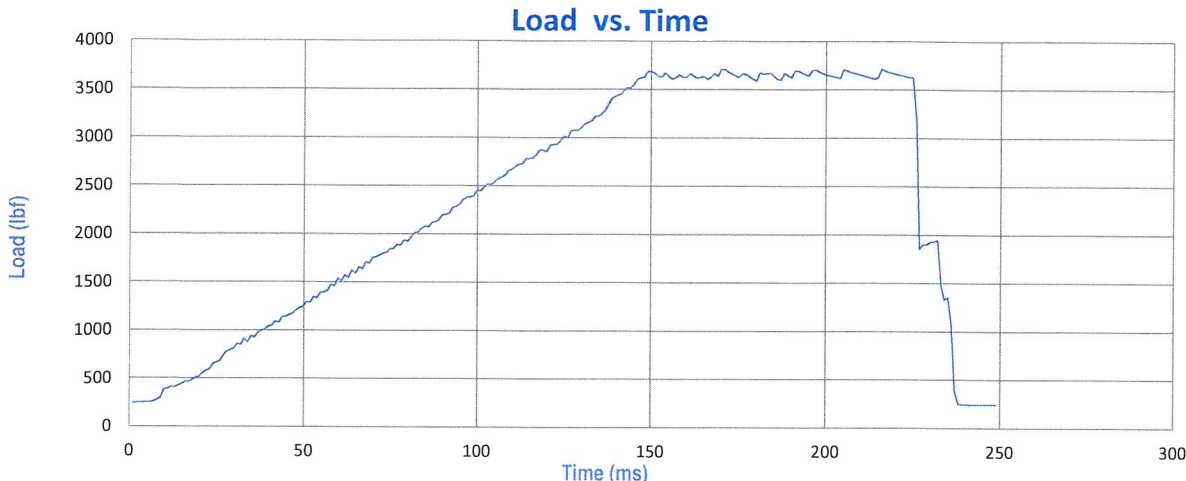
Load Cell: Lab1 - SN191924
DAQ Module: 1445A1C

Test Date: 11/5/2015
Time: 2:35 PM
Temp. (°F): 72
Humidity (%): 46

Test Instrumentation

ANSI Compliant Test Structure, 5k Load Cell/Data Acquisition System, ANSI Compliant 220 lbs ± 2 lbs Test Torso, Portable Floor Scale, Digital Timer, Digital Thermometer, miscellaneous connecting hardware

Drop Test Results



	<u>Acceptance Criteria</u>	<u>Test Results</u>	<u>Exp. Uncertainty</u>	<u>Pass/Fail</u>
Static Force (lbf):	3600 Minimum	3610.9	± 6.7 lbs	PASS
Static Force (sec):	60 Minimum	73	± 1 sec	PASS
Torso Release:	Not Released	Not Released	---	PASS
Load Bearing Breakage or Separation:	No Breakage or Separation	No Breakage or Separation*	---	PASS

Test Comments/Notes:

* Although damage occurred to the webbing, the webbing did not break or separate from the harness. The mid-section webbing on the right side (that connects between the center slots in the back plate and the horizontal tabs of the "T" buckle) was cut 3/4" (40% - 45%) through its width by the back plate slot. The mid-section webbing on the left side was cut 3/8" (30%) at the top and 1/8" at the bottom by the back plate slot. On this sample the slots were partially lined with a wrapping of tape.

Opinions and Interpretations:

None

Manager Name: Dave Lough

Signature: **Date:** 11/11/15

Engineer Name: Larry Cimino

Signature: **Date:** 11-11-2015

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