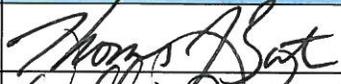
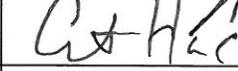
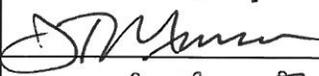
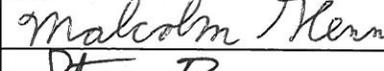
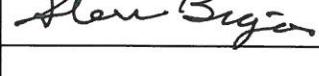


# Non-Load-Test Sling Request Form

## REVISION LOG

REV	DESCRIPTION	DATE
Basic	NORS Protective Blanket Sling	16 Jan 2013

## APPROVALS

TITLE	NAME	ORG	SIGNATURE	DATE
Lifting and Handling	Thomas J. Bateman	N190		16 JAN 13
System Safety	William D. Jones	D150		1/16/13
ORU Ground Processing Project Lead	George C. Horanic	GP-02		1/16/13
NASA Mechanical	Morgan S. Simpson	GP-06		1/16/13
ISS Ground Safety Review Panel	Paul D. Kirkpatrick	SA-B		1/16/13
NASA Safety	James T. Minnear	SA-B1		1/16/13
KSC LDEM	Malcolm C. Glenn	SA-G2		1/16/13
NORS Project Manager	Steven Bigos	UB-C		1/16/13

## SLING INFORMATION

SLING NAME: NORS Protective Blanket Sling	
PMN: N/A	S/N: N/A
OTHER IDENTIFIER (e.g. DWG #): TD111213	
DATE OF REQUEST: 14 Jan 2012	REQUESTING ORG: GP060

DESCRIPTION OF THE PERIODIC LOAD TEST THAT WILL NOT BE PERFORMED
<p>The annual periodic load test of the Nitrogen Oxygen Recharge System (NORS) Composite Overwrap Pressure Vessel (COPV) Engineering Unit (EU) Protective Blanket Sling will not be performed; ref. paragraph 10.3.2 of the NASA Lifting Standard, NASA-STD-8719.9.</p> <p>NASA Lifting Standard NASA-STD-8719.9 Paragraph 10.3.2  <b>10.3.2 Periodic Load Test.</b> Slings shall undergo periodic load tests at least every 4 years at a specific load test factor of the design rated load as given in Table 10-3. All components shall be tested together as a system, if practical. Slings used for critical lifts shall be load tested at least once per year. Slings used infrequently for critical lifts shall be load tested before each critical lift if it has been over a year since the last load test. Lifting interfaces such as eyebolts, D-rings, and lifting lugs permanently attached to the load are exempt from periodic load testing.</p> <p>Table 10-3 Periodic Load Test Factors. (Based on Manufacturers' Rated Load)</p> <p>Equipment Periodic Load Test Factor</p> <p>Alloy Steel Chain Slings 1.00</p> <p>Wire Rope Slings 1.00</p> <p>Metal Mesh Slings 1.00</p> <p>Synthetic Rope Slings 1.00*</p> <p>Synthetic Web Slings 1.00</p> <p>Linear Fiber Slings 1.00</p> <p>Structural Slings 1.00</p> <p>Shackles, D-rings, Turnbuckles, Eye Bolts, Lifting Lugs, Safety Hoist Rings, etc. 1.00</p> <p>* Critical lift rope slings of synthetic material shall not be used beyond 50 percent of the manufacturer's rating to maintain an equivalent design factor in the load system.</p>

SLING DESCRIPTION
<p><b>General:</b>                      Protective blanket P/N TD111213 consists of a padded black nylon sling with nylon web belt endless sling* sewn into place. * Rocky Mountain Nylon Web Belt Endless Sling ES1-601-X 100".</p>
<p><b>Design Standards:</b></p> <p>The sling meets the design requirements of the NASA Standard for Lifting Devices and Equipment, NASA-STD-8719.9, which states the minimum design factor for synthetic web slings is 5.</p>

**SLING DESCRIPTION****Design Factors:**

The web belt lifting capacity is 1,000 lbs in basket configuration, but will only be hoisting the NORS COPV EU weight of 110 lbs in basket configuration. This is a safety factor of 9.

**Material/Construction Properties:**

Nylon

**SLING USAGE****Operational History:**

This sling has only been used to hoist the NORS COPV EU, as it is specifically designed/designated for only that purpose. The sling was constructed in 6/2011, and has been used a minimal number of times.

**Maintenance History:**

The initial proof load was performed and visual inspections have been performed prior to each use, with no anomalies found. The sling is in good condition.

**Test History:**

The nylon slings were load tested to 1600 lbs vertical load on 06/29/11.

**Sling Rated Load versus Actual Load:**

Rated Load: Basket rated load of 1000 lbs

Actual Load: 110 lbs

Factor: 9.09

**Storage Provisions:**

The sling is stored in the NORS COPV EU shipping container, TD109724-01, when not in use, which is a clean, dry area; inside a facility.

**Planned Future Use:**

This sling is specifically designed to hoist the NORS COPV EU. Future use is for hoisting the NORS COPV EU. A minimal number of uses are planned.

**RATIONALE FOR NON-PERFORMANCE**

**NOTE:** If any of this rationale changes after approval, it is the responsibility of the requesting organization to contact the LDEM, re-submit a non-load-test request form and/or request removal of the sling from the non-load test sling list. Additionally any item on the non-load test sling list is subject to periodic review by the LDEM.

The sling will be inspected visually annually and prior to each use for any damage, deformation, discoloration, or other defects that might cause the sling to not perform at optimal level. In the case of any abnormalities being noted during the visual inspection, the sling will not be used.

The sling comes installed on the NORS COPV EU in the shipping container. It is difficult to manhandle the NORS COPV EU to get the sling off while in the box, and the JSC experts recommended the sling not be removed.

Describe the risks, if any, of not performing the load test and how they will be mitigated:

Any risks of not performing the load test will be mitigated during the annual visual inspection and/or the each time use visual inspection.

**ADDITIONAL INFORMATION**

Photo of NORS COPV EU Sling and NORS COPV EU; 01/17/13 at the SSPF:

