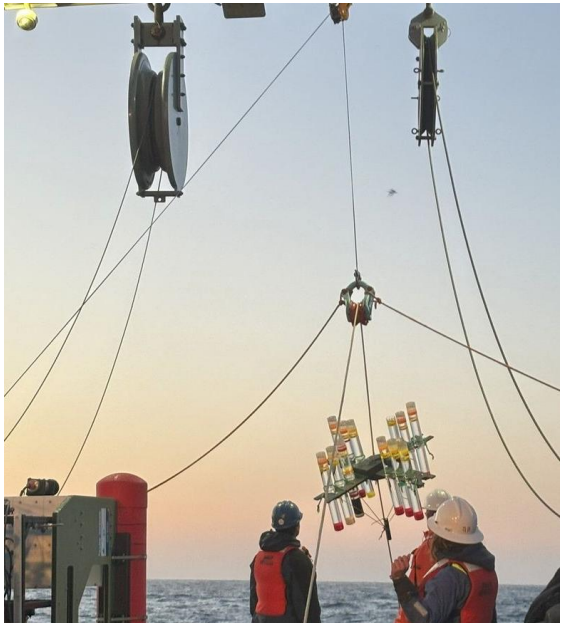
LOAD TRANSFERS AT SEA

Amber Boettiger SIO, Paul Walczak OSU MARSSAM

R/V *Sally Ride*, Anacortes , Washington. *Credit: Jeff Dillon.*

PERSONAL INTRODUCTIONS

- PAUL
  - LEAD TECHNICIAN WITH OSU'S MARSSAM
- AMBER
  - SIO RESIDENT TECHNICIAN
- WHY ARE WE FRIENDS?
  - WE LIKE TO HANG OUT ON DECK AND HELP YOU STAY SAFE



LOAD TRANSFERS

- WHAT IS IT?
- WHERE DO WE SEE THEM ACROSS UNOLS?
  - PISTON CORING
  - MOORINGS
  - SEISMIC SURVEYS
  - MAGNETOMETER TOWS
  - IMPERFECT INSTRUMENTATION RECOVERIES AKA “SCREW UPS”

TYPES OF GRIPS

Specifications

Material Size		Part Number	Minimum Cable Diameter		Maximum Cable Diameter		Average Break Strength		Maximum Working Load (5:1)		Tail Length		Eye Size		Color
Inches	(mm)		Inches	(mm)	Inches	(mm)	Lbs	Kg	Lbs	Kg	Feet	M	Inches	(cm)	
7/16	(11)	944504T	3/16	(5)	1/2	(13)	6,000	2,722	1,200	544	4.5	1.4	6	(15)	Red
9/16	(14)	944505T	1/4	(6)	3/4	(18)	12,000	5,443	2,400	1,089	5.5	1.7	6	(15)	Blue
11/16	(17)	944506T	3/8	(10)	7/8	(22)	18,000	8,165	3,600	1,633	6.5	2.0	6	(15)	Green
7/8	(22)	944507T	1/2	(13)	1	(25)	30,000	13,608	6,000	2,722	8	2.4	8	(20)	Orange
1	(25)	944508T	5/8	(16)	1-1/8	(29)	48,000	21,773	9,600	4,355	10	3.0	8	(20)	Yellow
1-1/4	(32)	944509T	7/8	(22)	1-3/4	(44)	72,000	32,659	14,400	6,532	16	4.9	12	(30)	Black
1-1/2	(38)	944510T	1-1/8	(29)	3	(76)	120,000	54,432	24,000	10,886	22	6.7	16	(41)	Red
1-3/4	(44)	944511T	1-3/8	(35)	3-1/2	(89)	180,000	81,648	36,000	16,330	28	8.5	18	(46)	Blue
2	(51)	944512T	2	(51)	4	(102)	290,000	131,544	58,000	26,309	34	10.3	18	(46)	Green
2-1/4	(57)	944513T	3-1/4	(83)	5	(127)	365,000	165,564	73,000	33,113	40	12.2	20	(51)	Orange
2-1/2	(64)	944514T	4	(102)	6	(152)	450,000	204,120	90,000	40,824	52	15.8	24	(61)	Yellow

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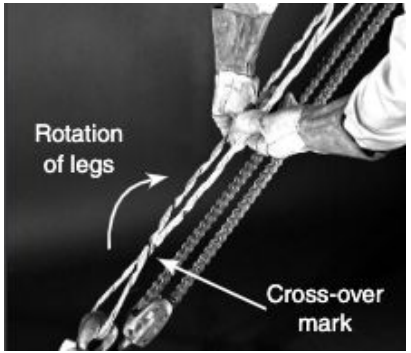
YALE GRIPS

temporary, used with all lines

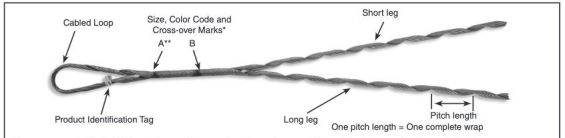
KLEIN GRIP

Big pull uses, crane or winch failures



GUY-GRIP® Dead-end

Be sure to read and completely understand this procedure before applying product. Be sure to select the proper PREFORMED™ product before application.



*Cross-over marks labeled "**A**" are to be used as strand starting point on small seated hardware and anchor rods. Utilize cross-over marks labeled "**B**" (provided only on 3/8" and smaller strand applications) as strand starting point for seat diameters larger than specified in the table in the Product Catalog, guy strain insulators requiring a longer loop or bigger seat diameter, or strand connectors with set diameters greater than 1-3/4".

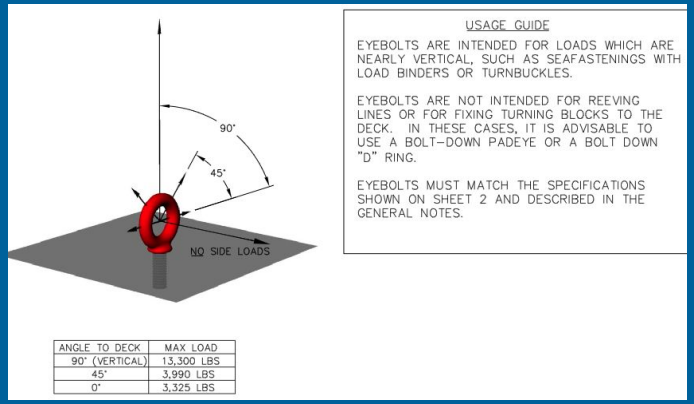
** L-Series GUY-GRIP Dead-ends have only one set of cross-over marks at 'A'.

GUY-GRIP Dead-ends are **not** acceptable for Overhead Shield Wire applications.

GUY GRIPS

More permanent, wire and cables

LOAD BEARING AND TOW POINTS



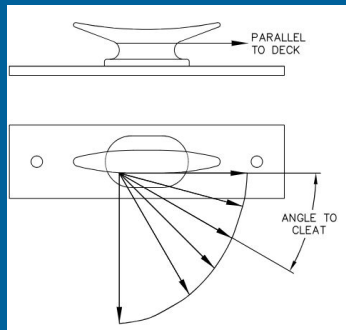
USAGE GUIDE

EYEBOLTS ARE INTENDED FOR LOADS WHICH ARE NEARLY VERTICAL, SUCH AS SEAFASTENINGS WITH LOAD BINDERS OR TURNBUCKLES.

EYEBOLTS ARE NOT INTENDED FOR REEVING LINES OR FOR FIXING TURNING BLOCKS TO THE DECK. IN THESE CASES, IT IS ADVISABLE TO USE A BOLT–DOWN PADEYE OR A BOLT DOWN "D" RING.

EYEBOLTS MUST MATCH THE SPECIFICATIONS SHOWN ON SHEET 2 AND DESCRIBED IN THE GENERAL NOTES.

ANGLE TO DECK	MAX LOAD
90° (VERTICAL)	13,300 LBS
45°	3,990 LBS
0°	3,325 LBS



USAGE GUIDE

CLEATS ARE INTENDED FOR LOADS WHICH ARE NEARLY HORIZONTAL, SUCH AS MOORING LINES.

CLEATS ARE NOT INTENDED FOR REEVING LINES OR FOR FIXING TURNING BLOCKS TO THE DECK. IN THESE CASES, IT IS ADVISABLE TO USE A BOLT–DOWN PADEYE OR A BOLT DOWN "D" RING.

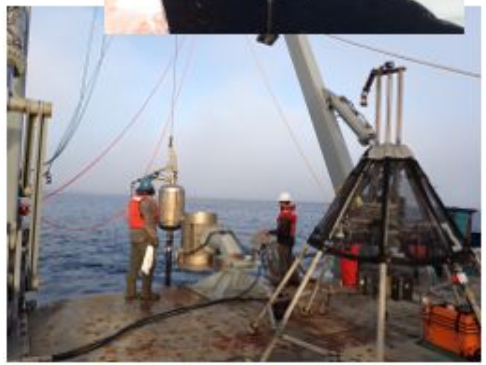
CLEAT ASSEMBLIES MUST MATCH THE SPECIFICATIONS SHOWN ON SHEET 2 AND DESCRIBED IN THE GENERAL NOTES.

ANGLE TO CLEAT	MAX LOAD
0°	6,973 LBS
15°	6,964 LBS
30°	7,088 LBS
45°	7,332 LBS
60°	7,654 LBS
90°	8,192 LBS

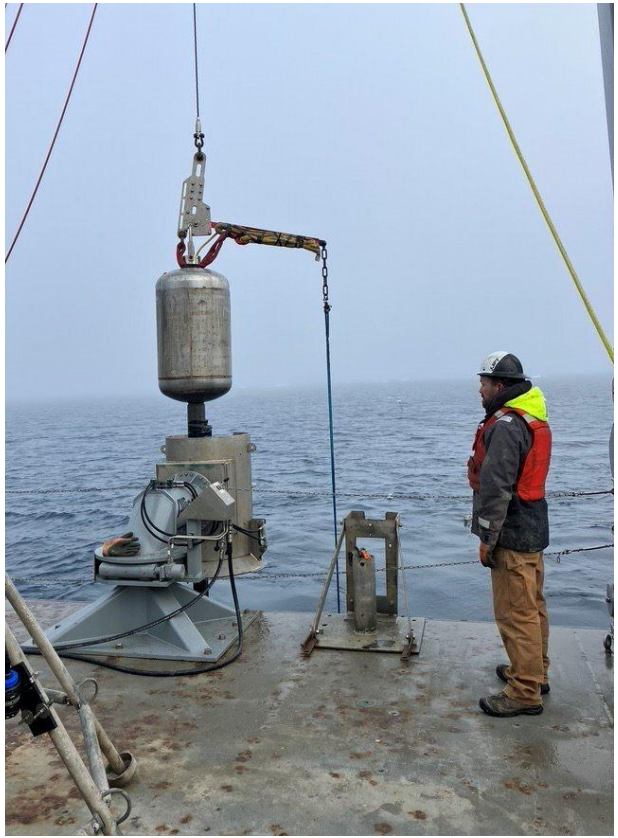
- WHAT ARE LOAD BEARING POINTS?
  - EYE BOLTS (NOT ALL SIZES/ THREADS ARE THE SAME)
  - DECK CLEAT
  - HBIT
  - D-PLATE/ D-RING
- GLOSTEN DIAGRAMS

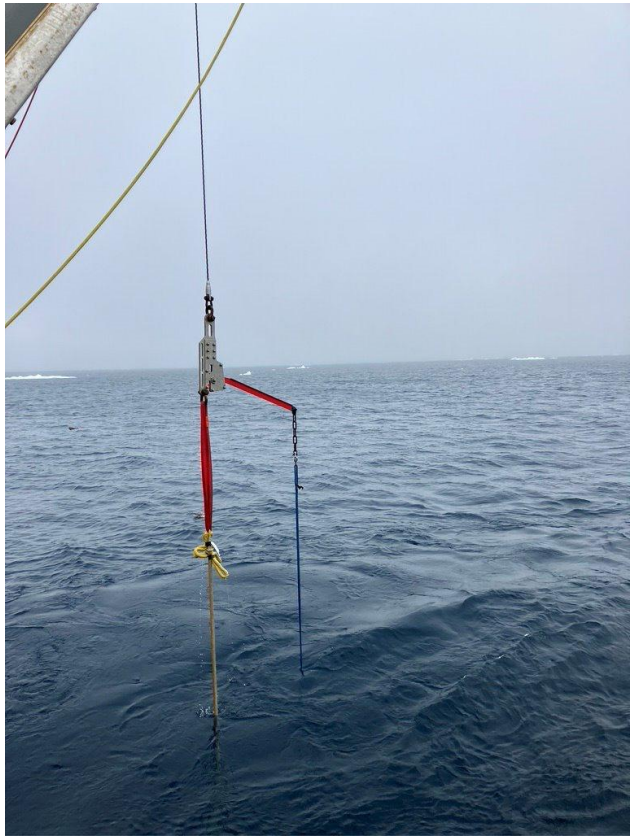
CORING LOAD TRANSFERS

Launch (no transferred load)
Launch (transfer load to trigger)

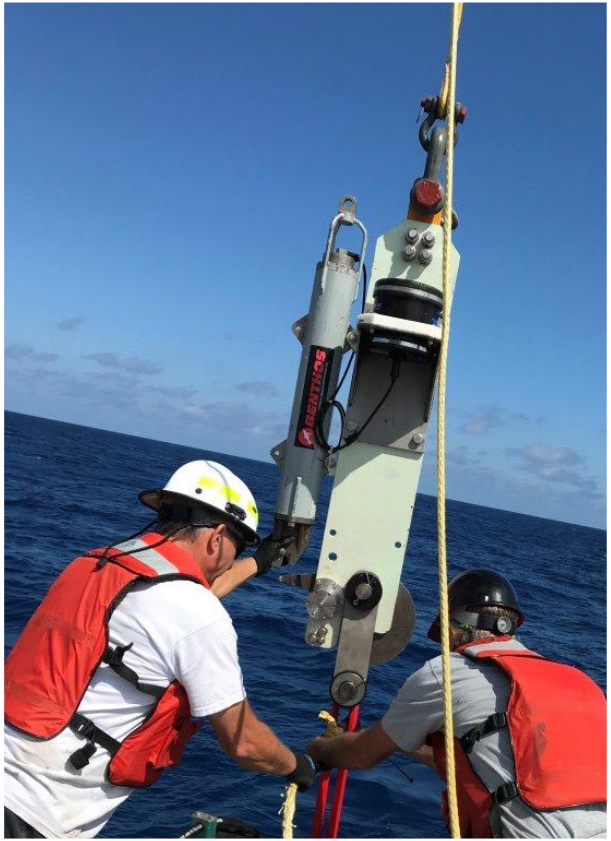


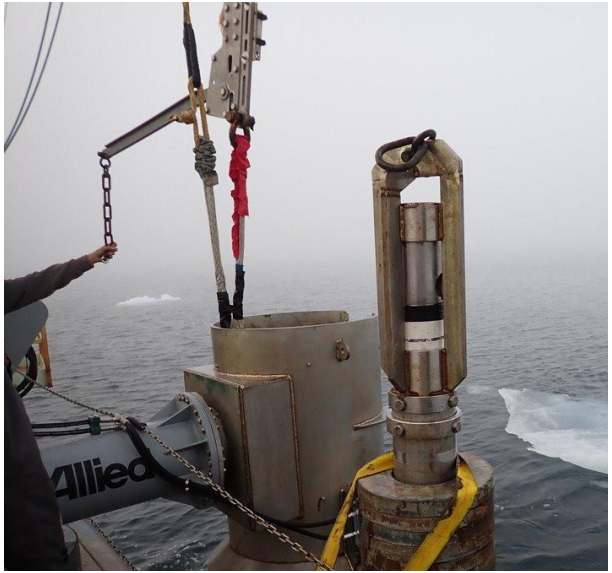
LAUNCH VS. RECOVERY



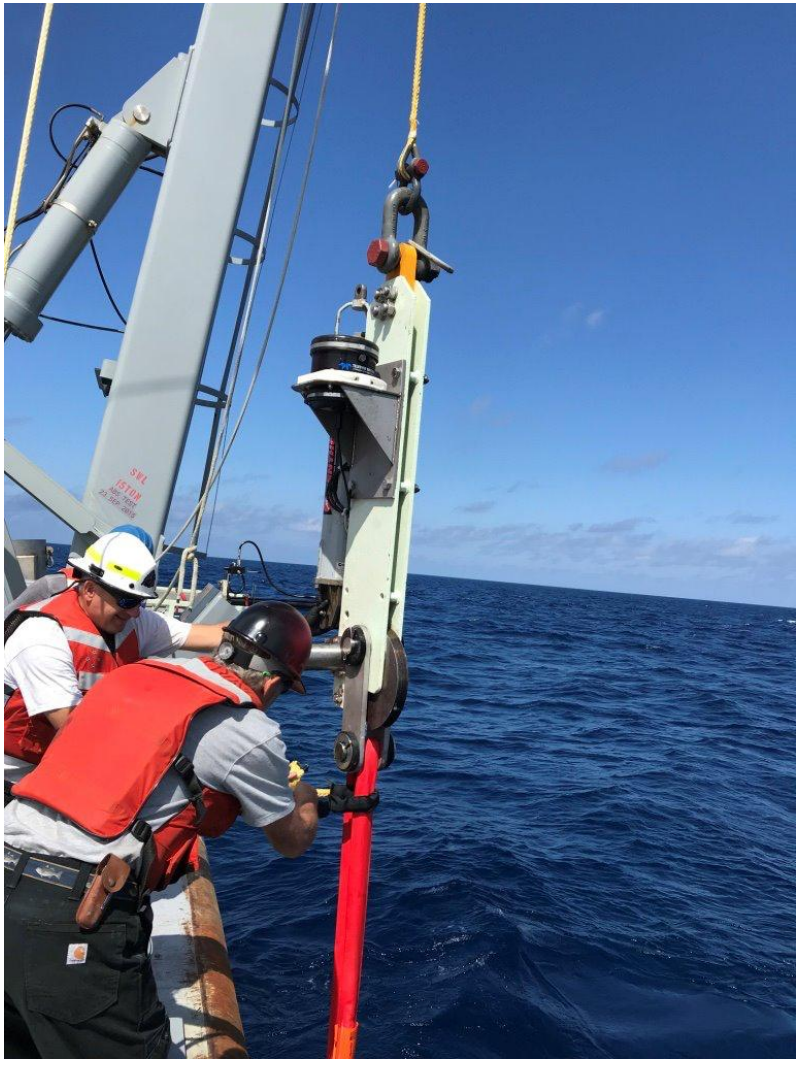


RECOVERY

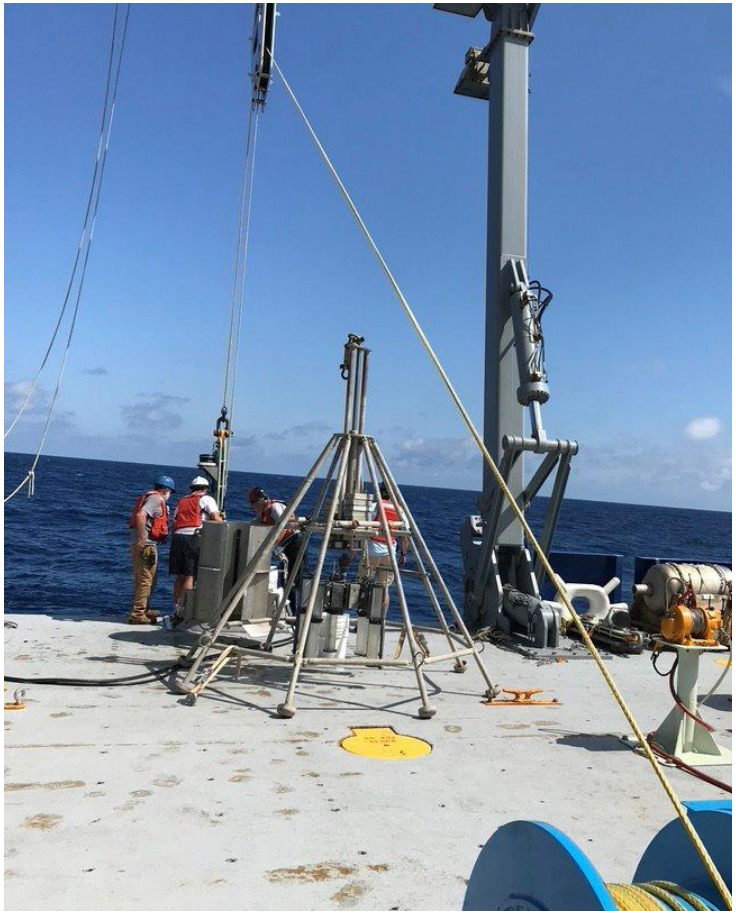




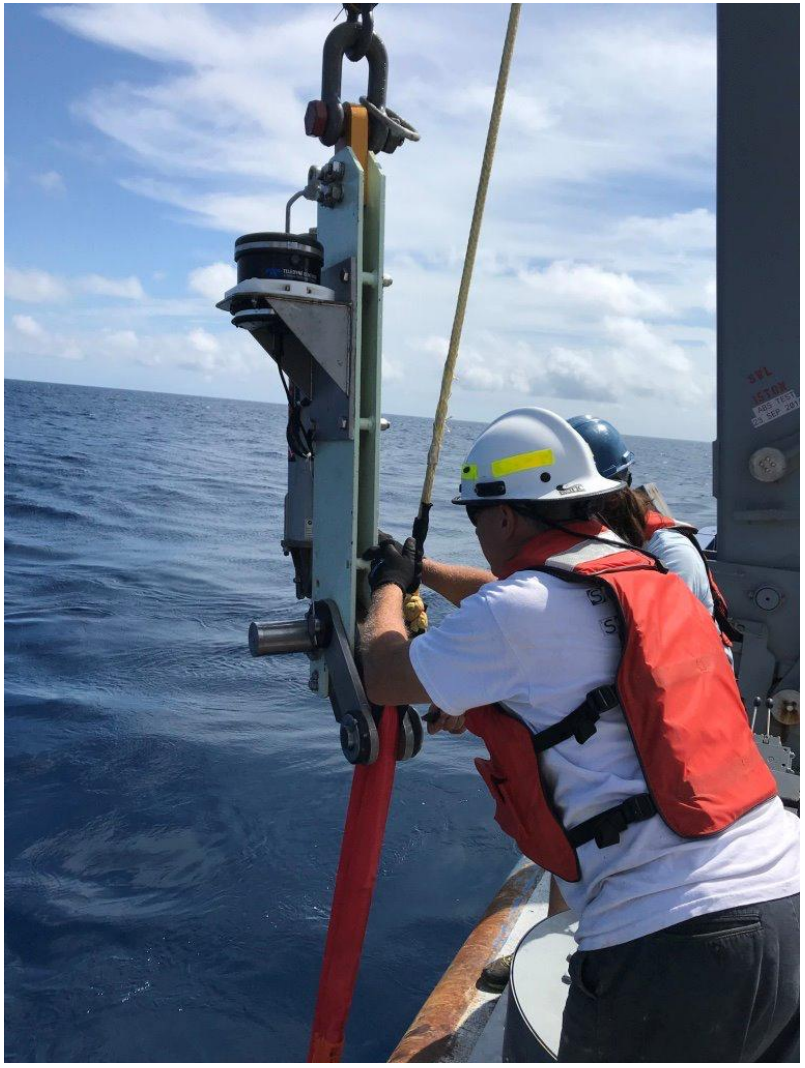
RECOVERY



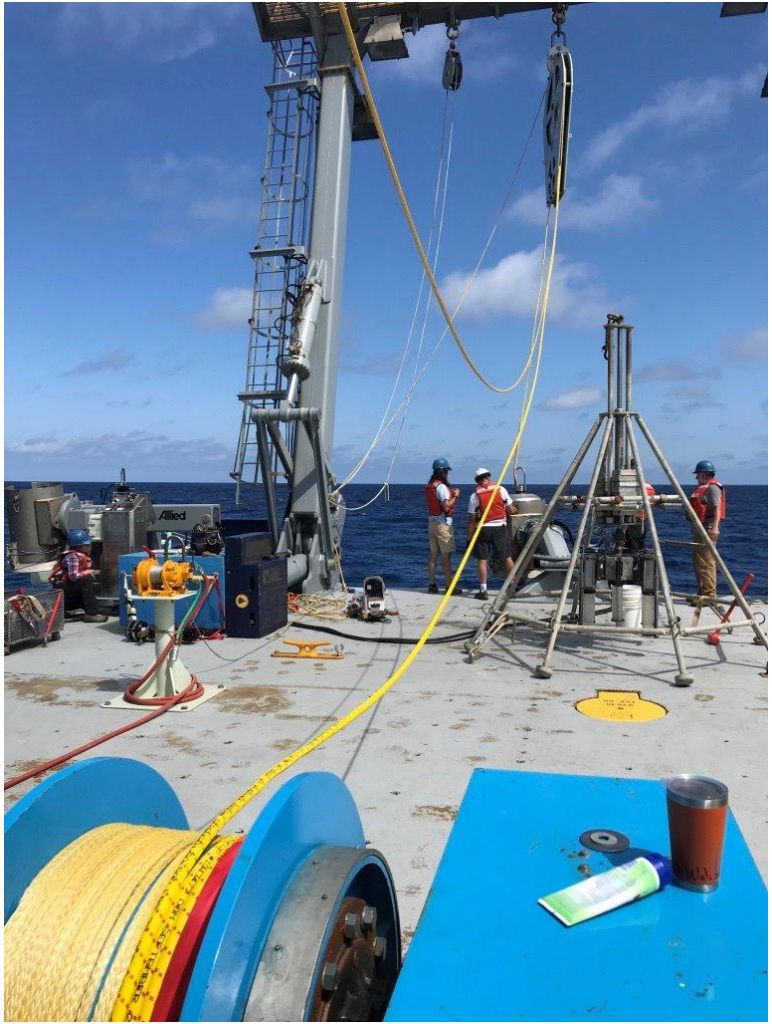
RECOVERY



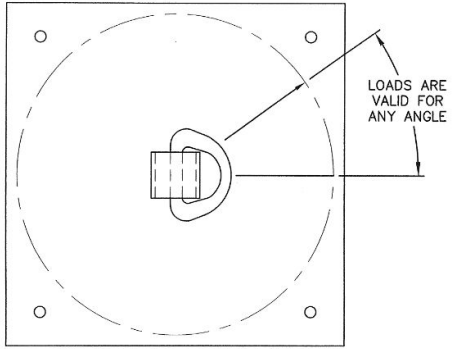
RECOVERY



RECOVERY

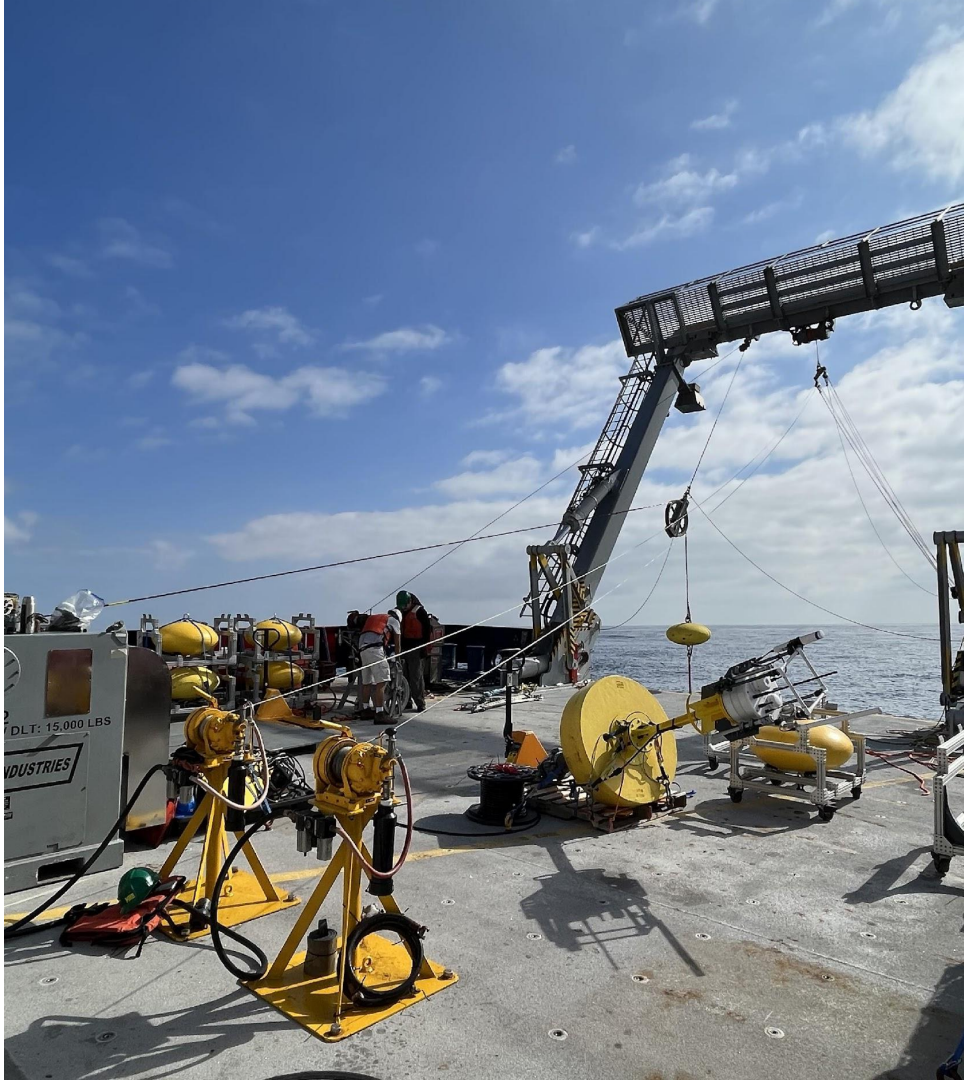


LOAD TRANSFERS WITH WINCH OPS



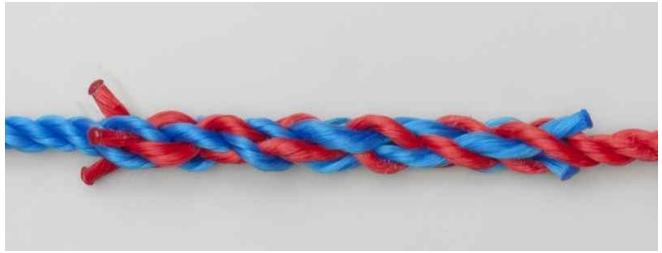
ANGLE TO DECK	MAX LOAD
0°	13,990 LBS
15°	14,450 LBS
30°	13,500 LBS
45°	9,550 LBS
60°	7,790 LBS
75°	6,990 LBS
90° (VERTICAL)	6,750 LBS

MOORING LOAD TRANSFERS



IMPERFECT INSTRUMENTATION RECOVERIES AKA “SCREW UPS”

- RECOVERING MISFIRED/ TANGLED EQUIPMENT
- BAD CTD/ BURIED WRAPS IN A DRUM
- TOO MUCH STUFF IN YOUR NET
- SYNTHETICS
  - END TO END SPLICE

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