

Coordinated Canyon Experiment

BIN Deployment Planning

(DRAFT)

Rev. 2.0 4MAY15 mrc

BIN Frame Specifications

- Frame size 7.2 x 7.2 feet (diagonal 10.15)
- Total Air weight is less than 2720 lbs.
- Total estimated wet weight is 1000 lbs.

Estimated weight in Lbs.	Air	Water
Battery and housing weight	676	-33
Frame weight	906	783
Battery frame weight (est.)	100	80
Additional ADCP weight 2x	57.2	20
BIN weight	309	98
Total	2049	948

WF Ship Facilities

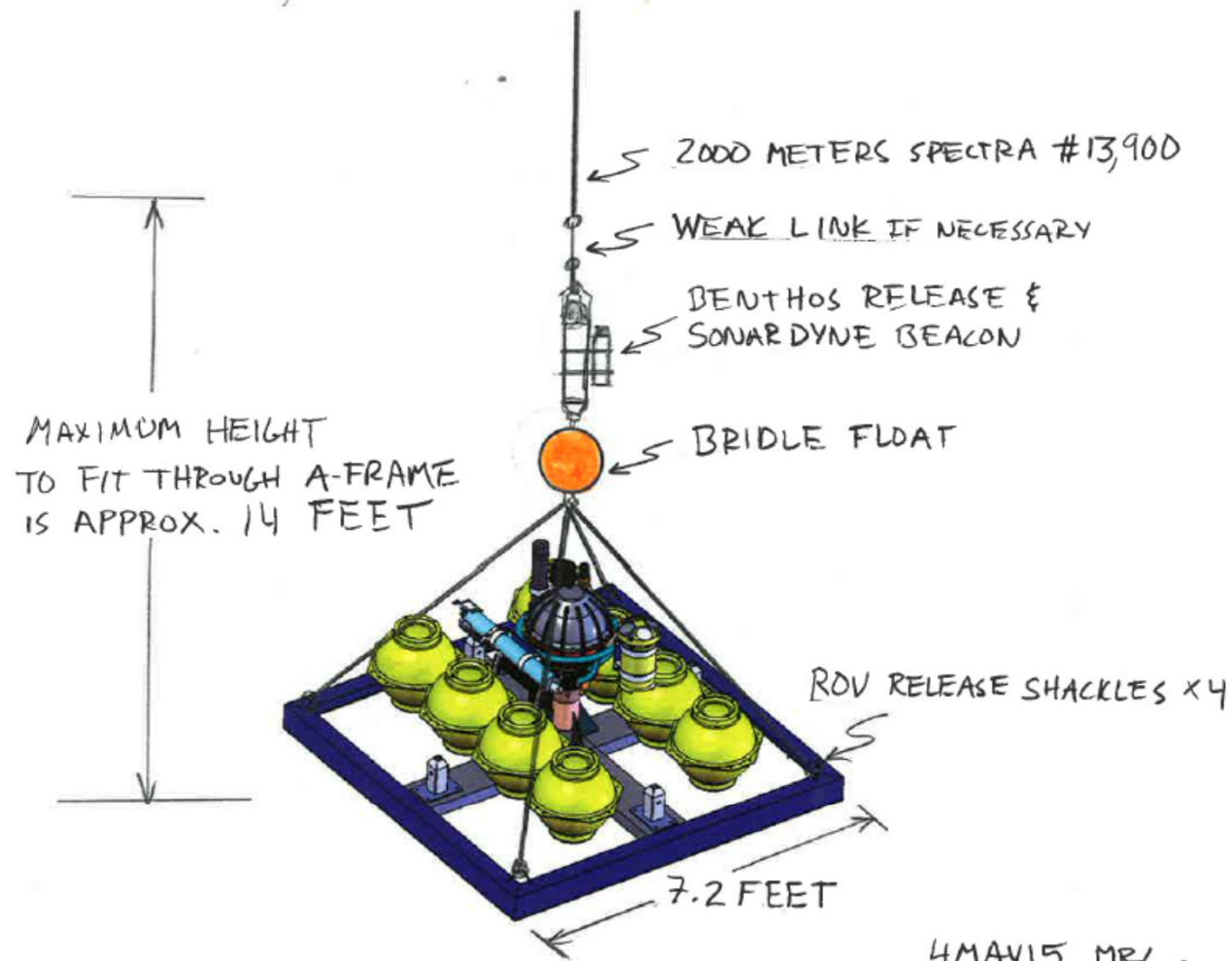
- Winch for deployment and recovery of the BIN frame – Dynacon CTD winch on 01 deck.
 - Maximum static load (limited by deck bolt loading) **2720 lbs.***
 - With new 12 bolt (4 at front and rear) mounting plate.
 - Dynamic loading is accounted for in the 5x safety margin.
 - Dynamic loads will be confirmed before review.
- Lift line is 2090 meters of 2SPL 3/8" dia. Spectra 12 strand, tensile strength (new) 13,900 lbs.
 - This line breaking strength is close to winch (13,600) and OK for A-Frame (37,589) maximum requirements.
 - Weak link can be installed (13,000) if desired.

** From Glosten "Aft Winch Structure Review" Rev. B 26NOV2003*

Deployment Procedure

- Attach beacon, release and weak link to the end of the lift line on the CTD winch.
- Lift BIN frame from the well deck and lower until first bottom touch.
 - Track position with SBL system.
- Trigger release.
- Recover lift line on CTD winch.
- Dive and inspect BIN frame with ROV.
 - Attach Aquadopp Profiler mount arm.

COORDINATED CANYON BIN DEPLOYMENT



4MAY15 MRL

MAXIMUM S.W.L 2720 LBS.



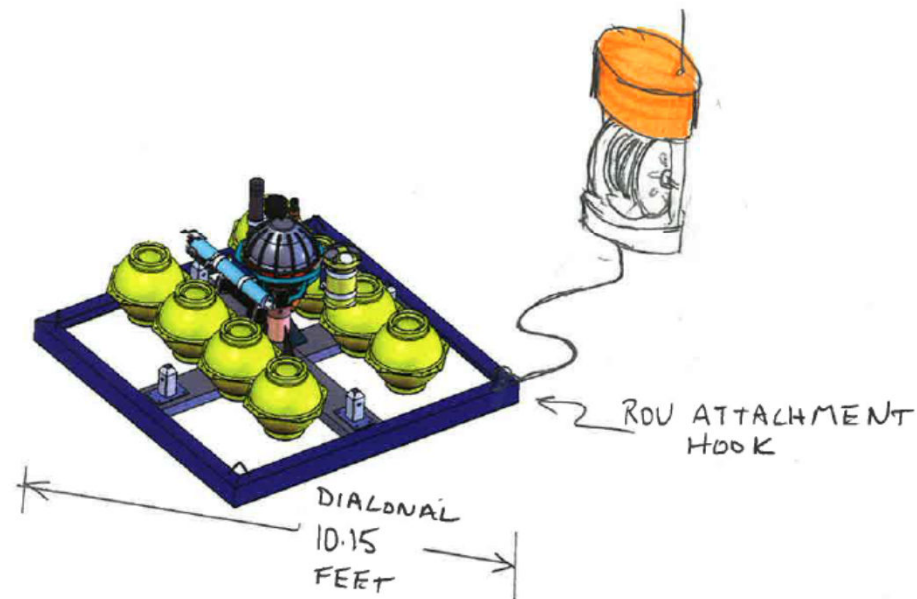
Recovery Procedure

- Deploy line spool with 2090 meters of 3/8" Spectra line.
- Dive ROV and move line spool to BIN Frame location.
- Attach end of lift line to BIN frame.
- Release line spool.
- Recover ROV.
- Recover line spool and unspool remaining line.
- Attach line to CTD winch.
- Hoist BIN frame to WF well deck.

Recovery Illustration

COORDINATED CANYON BIN RECOVERY

1. LIFT BY ONE CORNER
2. TAG LINE ? PULL THROUGH A-FRAME OPENING



4MAY15 MPC



Questions and Issues

- Can we limit the total launch vertical height to fit through the A-Frame?
- Can the Sonardyne beacon and Benthos release be co-located without interference?
- Bridle recovery after release
 - Let free ascend to surface? May lose hardware.
 - Other options?
- Total BIN Frame and launch hardware MUST be 2720 lbs. or less.
- Need to examine strength and accessibility of corner lift points.
 - Will Aquadopp mount interfere with recovery on board the WF?

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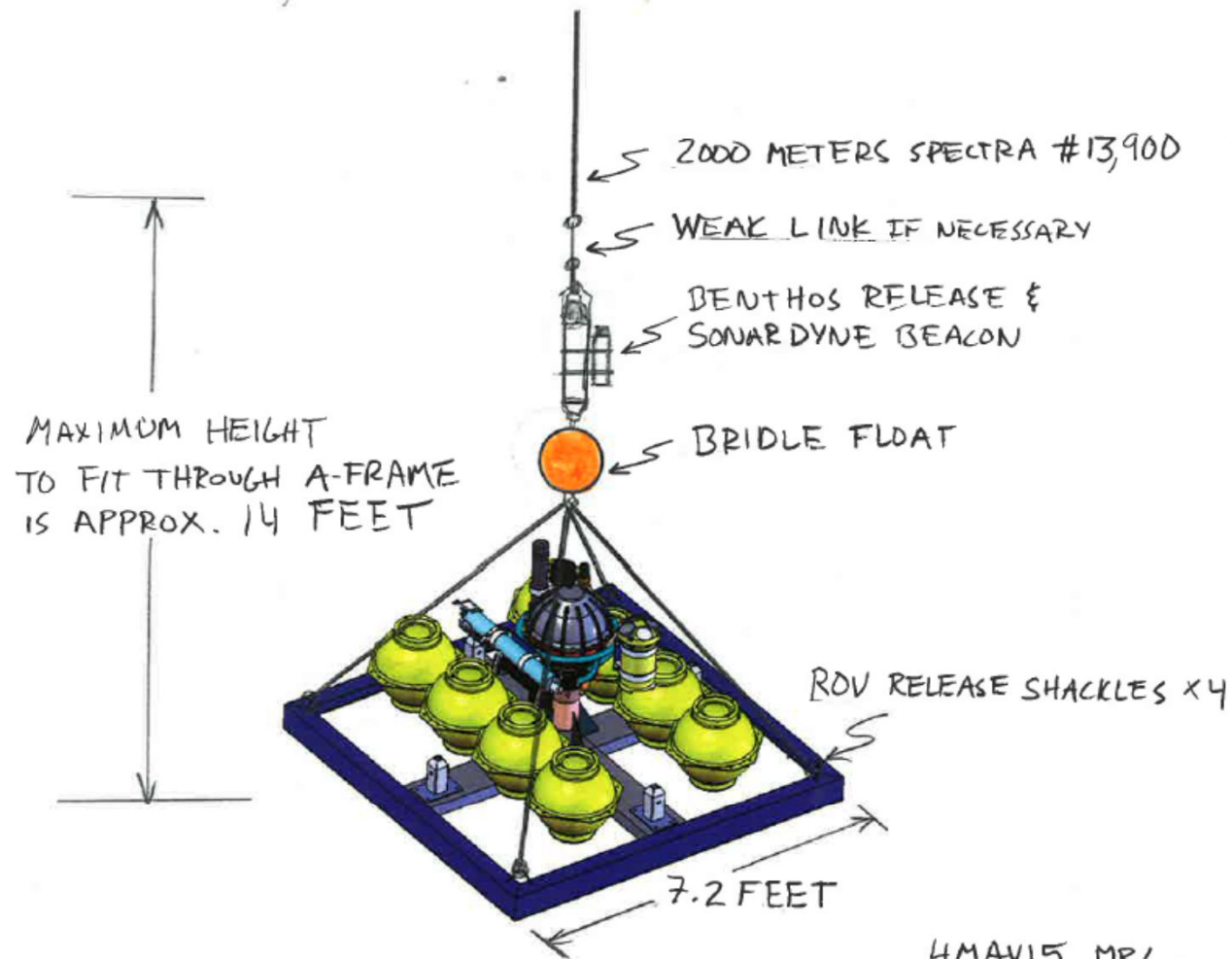
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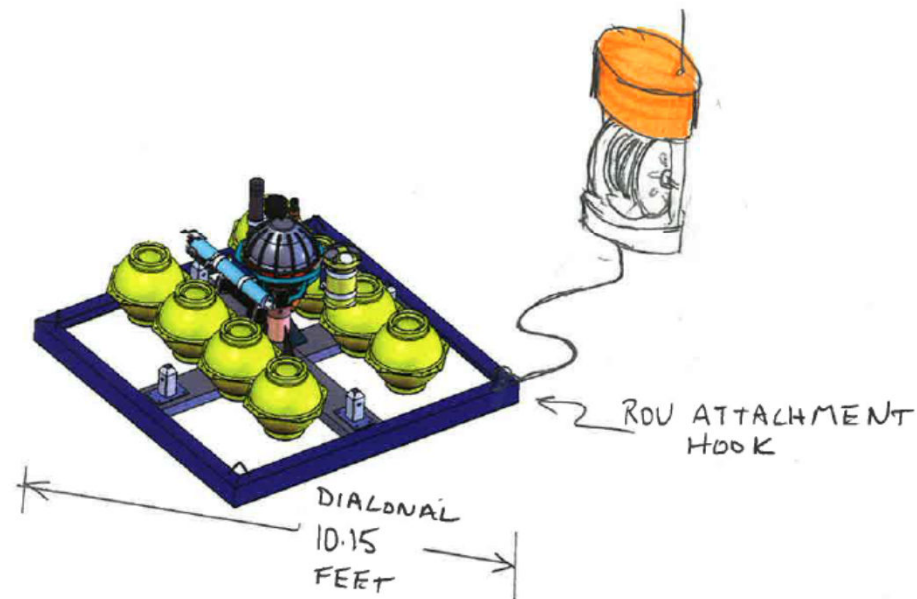
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