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Barkley Canyon Infrastructure Update

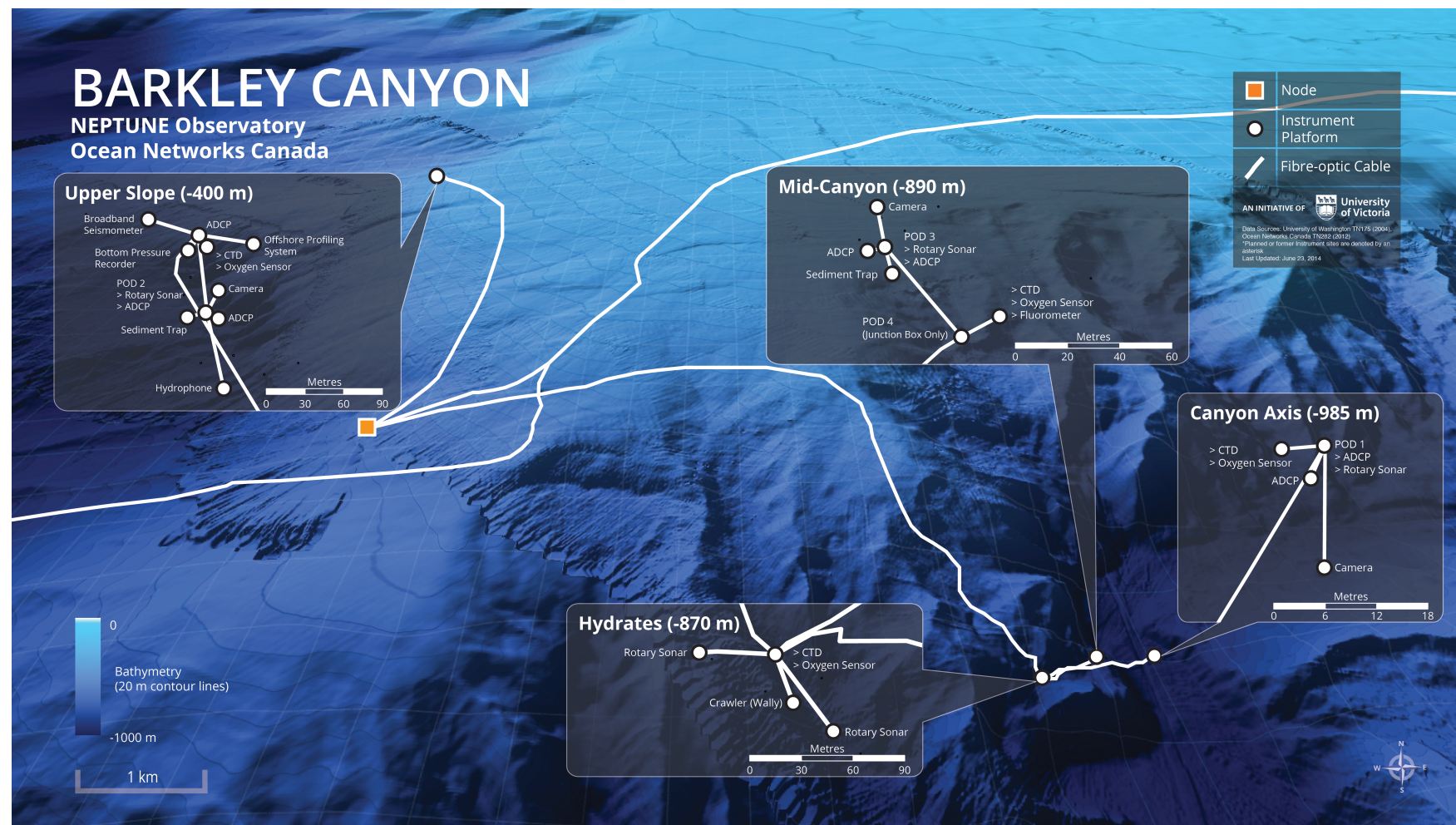
Jarrett Little

4 October 2015

AN INITIATIVE OF  University
of Victoria

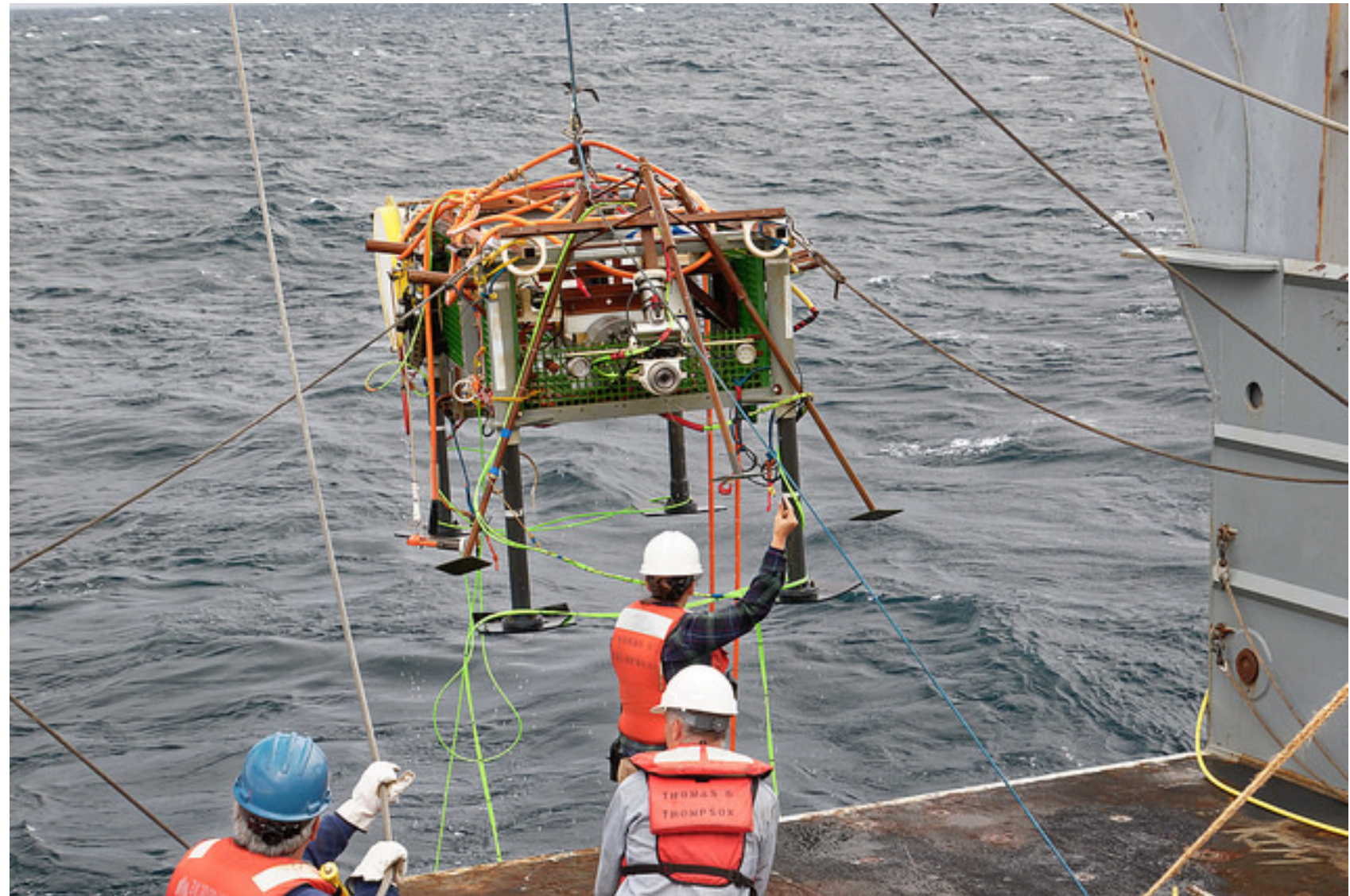
Introduction - Topics

1. Barkley Canyon Infrastructure Status
2. Spring 2015 Node Repair Cruise Details
3. Barkley Node Redeployment Plan – May/ June 2016
4. Instrument Platform Maintenance
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Barkley Canyon Infrastructure Update

- Node, TRF, and CTA recovered and back at MTC.
- Hydrates science cable fixed and on the seafloor.
- Upper slope science cable still needs to be recovered and ODI assembly installed.
- Both CTA's have been damaged. ODI has removed the HV connectors for inspection.
- Pods 1, 2, 3, and 4 have been recovered. VPS still on seafloor.
- Wally in process of being shipped back to Germany.



Spring 2015 Node Repair Details

What went right:

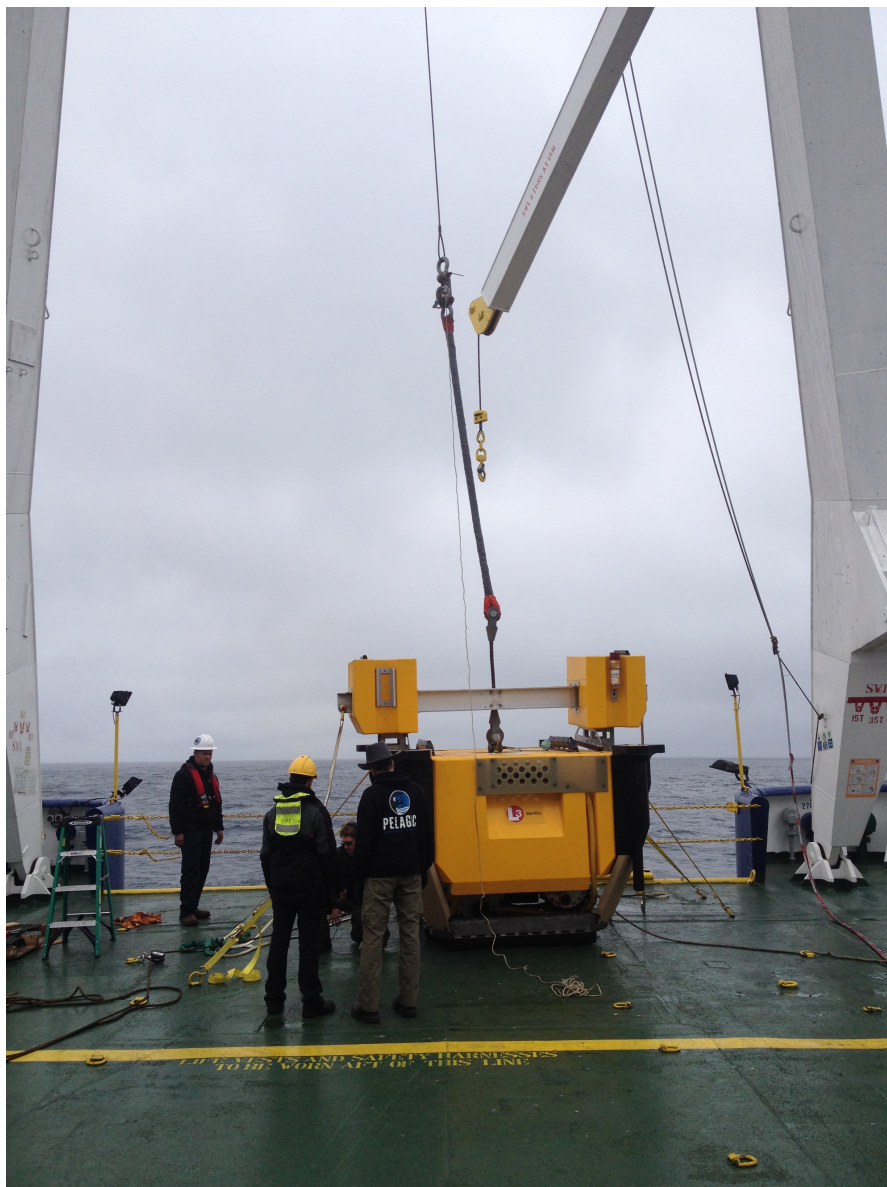
- Successfully recovered original node.
- Recovered damaged CTA after cutting away the HV and comms cables.
- Recovered and repaired hydrates cable termination with the Wave Venture.
- Deployed spare node beside TRF.
- Spliced spare CTA into branching cable and deployed beside node.

What went wrong:

- HV connector shorted to sea water on initial power up of spare node.
- Upper slope cable partially repaired.
- TRF frame flipped by cable ship.



Spring 2015 Node Repair Details

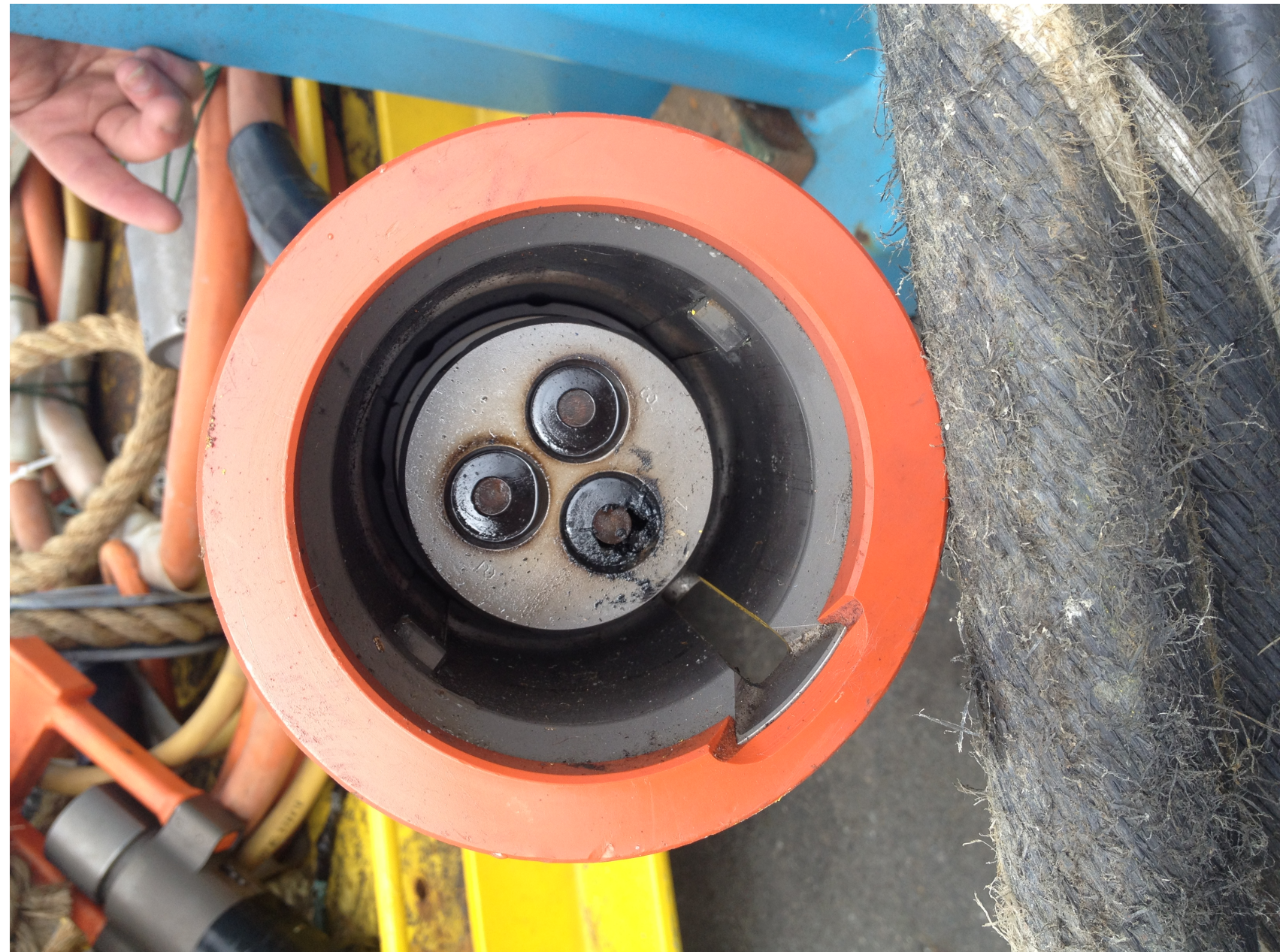


Spring 2015 Node Repair Details – HV ODI



Spring 2015 Node Repair Details – HV ODI

- Both nodes, CTA's, and the TRF have been recovered.
- ODI has removed the HV connectors off the damaged node and the CTA.
- ODI is investigating the cause of the short to seawater on the HV connector.
- Should have an answer before end of year.



Node Redeployment Plan – May/June 2016

- Deploy Node and TRF together as one package.
- Two ship operation. Cable ship and support ROV ship.
- Removing the ODI HV connector for a hardwired solution.
- Permanent linkage between the Node (MVC) and CTA penetrators.
- Node to be secured inside the TRF while still removable for recovery.
- CTA will be bolted into the TRF
- TRF will be rebuilt and all hardware swapped.
- Deck and seabed procedures are still to be determined.



Instrument Platform Maintenance – PODs 1,2,3

- Pods 1, 2, 3, and 4 have been recovered during the ONC cruise aboard the R/V Thompson.
- Wally was recovered and is in the process of being shipped back to Germany.
- Two rotary sonars have been recovered from Wally Land tri-pods.
- All instruments have been removed from the platforms cleaned and are being prepped for calibration and refurbishment.



Instrument Platform Redeployment – July 2016

- Pod 3 and Pod 4 will be combined.
- Pod 4 will be used as a spare junction box.
- Full platform maintenance will be completed this fall/winter 15/16.
- Redesign instrument mounts including camera tri-pods.
- Methods of attaching instruments to platforms will be rethought.
- All platforms will be pre-rigged and ready for deployment by April 2016.
- Potential deployment date of July 2016 with the R/V Sikuliaq.



Barkley Canyon Timeline - Questions

Oct 2015 – Mar 2016

- Node – TRF – CTA refurbishment and deployment planning
- Instrument platform redesign / refurbishment
- Instrument calibration and testing

May/June 2016

- Barkley Canyon Node/TRF/CTA redeployment cruise with cable ship and support ROV ship.
- End of June 2016 will have upper slope and hydrates powered up.
- Possible VPS recovery.

July 2016

- ONC offshore cruise with R/V Sikuliaq.
- Pods 1, 2, 3, and Wally will be redeployed and powered on.
- VPS recovered if not done in May/June

