

Hatfield-4303: Understand extent of lakes and wet areas for hazard assessment

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Challenge

Challenge ID:	HCP-4303	Originator:	Onshore: Hatfield
Title:	Understand extent of lakes and wet areas for hazard assessment.		
Theme:	ON 4.3: Environmental monitoring - Natural Hazard Risk Analysis		
Consortium Lead:	RPS Group	Interviewed Company:	RPS Group
Geography:	ON.REG.00 - Generic onshore		
Challenge Description			
What is not possible / not adequately addressed at present?			
Important information for varied operations, including jungle and open areas. Standing waters and wet areas affect the progress of seismic operations and present safety risks. This would also apply to areas affected by tidal movements.			
What effect does this challenge have on operations?			
Risk mitigation planning in absence if information is more challenging and this can affect the shooting order of a seismic survey. Would be able to improve planning with information on extent of lakes and wet areas and natural seasonal change in extent.			
Thematic information requirements:		Water quantity	
What do you currently do to address this challenge?			
How is this challenge conventionally addressed?			
Mapping is not addressed very well in jungle areas and is a manual process. Typically use existing or available base data and satellite images to assess seasonal change in waterbody extents.			
What kind of solutions do you envisage could address this challenge?			
In a jungle environment the extent of water bodies is not always obvious, but digital terrain models and water levels on rivers and waterbodies could be monitored through the canopy. Surface water extent and soil moisture info could be obtained..			
What is your view on the capability of technology to meet this need?			
Are you currently using EO tech? If not, why not?			
Feasible with LiDAR but could be improved with the use of satellite images to detect water.			
Challenge Classification			
Impact on Lifecycle (0=none, 4=high):		Climate / Topography / Urgency:	
Pre-license:	1	Climate class:	Tropical humid
Exploration:	4	Topographic class:	Gentle terrain, vegetated
Development:	4	Seasonal variations:	Warmer weather focus
Production:	2	Impact area:	Health and Safety
Decommissioning:	1	Technology urgency:	3 - Immediately (0-2 years)
Challenge Information Requirements			
Update frequency:	Snapshot		
Data currently used:	Optical imagery, radar imagery		
Spatial resolution:	Regional		
Thematic accuracy:	Not specific		

Required formats:	Not specific
Timeliness (Vintage):	Reference data
Geographic extents:	Basin
Existing standards:	None

Relevant products

Content by label

There is no content with the specified labels