OTM-056: Locating repeater stations for communications infrastructure

Locating repeater stations for communications infrastructure

Challenge

	Challenge ID	OTM:056				
1	Title	Locating repeater stations for communications infrastructure				
2	Theme ID	ON 5.2: Logistics planning and operations - Support to surveying crews for planning surveys and H&S				
3	Originator of Challenge	Onshore: OTM				
4	Challenge Reviewer / initiator	Petronas				
	General description	Overview of Challenge				
5	What is the nature of the challenge? (What is not adequately addressed at present?)	We need to address issues relating to radio communication infrastructure. These include aspects such as planning road access to communication infrastructure, planning bulldozer lines, identifying line-of-sight issues, and locating repeater stations. We do not want to leave a network of scars through forested areas and we want our E&P activity to be as environmentally sensitive as possible. A way of ascertaining elevation characteristics that could subsequently limit the detrimental aspects of our operations would be very valuable				
6	Thematic information requirements	1. Obtain detailed topographic information, 3. Obtain detailed vegetation information, 5. Identify location and condition of transport infrastructure,				
7	Nature of the challenge - What effect does this challenge have on operations?	Line clearance costs can be very high, and notoriously difficult to maintain. Sending a field survey team to obtain elevation data to find a network of high points for comms purposes is time consuming, costly and difficult, especially in densely forested				
8	What do you currently do to address this challenge?/ How is this challenge conventionally addressed?	Ground survey team				
9	What kind of solution do you envisage could address this challenge?	High resolution DEM that is affordable would be very valuable				
10	What is your view on the capability of technology to meet this need? – are you currently using EO tech? If not, why not?	EO could be a useful complimentary technology.				
	Challenge classification					
11	Lifecycle stage	Pre license	Exp.	Dev.	Prod.	Decom.
	Score from impact quantification [1]	2	4	3	1	3
12	Climate classification	NOT CLIMATE SPECIFIC				
13	Geographic context/restrictions	Generic onshore (Unspecified)				
14	Topographic classification / Offshore classification	Generic onshore (Unspecified)				
15	Seasonal variations	Any season				
16	Impact Area	Speed exploration and development (Operational cost reduction), environment, safety				
17	Technology Urgency (How quickly does the user need the solution)	Immediately (0-2 years)				
	Information requirements					
18	Update frequency	Snap shot requirement				
19	Data Currently used	Conventional mapping and data from ground surveys				
20	Spatial resolution	Conventional mapping and data from ground surveys				
21	Thematic accuracy					
22	Example formats					
23	Timeliness	Reference data - timeliness not important				
24	Geographic Extent	Development area only				
25	Existing standards	N/A				

[1] Impact quantification scores: *4 – Critical/ enabling; 3 – Significant/ competitive advantage; 2 – Important but non-essential; 1 – Nice to have; 0 – No impact, need satisfied with existing technology*

Relevant products

Content by label

There is no content with the specified labels