

Hatfield-1204: Assess forest characteristics to plan access and assess hazards

Assess forest characteristics to plan access and assess hazards

Challenge

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| Challenge ID: | HCP-1204 | Originator: | Onshore: Hatfield |
| Title: | Assess forest characteristics to plan access and assess hazards. | | |
| Theme: | ON 1.2: Seismic Planning - Identification of adverse terrain for trafficability | | |
| 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? | | | |
| Knowing access limitations and potential ground conditions is an important factor in planning effective seismic operations. Efficiently moving both equipment and people around is critical to completing a project in good speed. In addition, from a safety perspective, being able to map emergency response times and how (and what type of transport/vehicle) to get from a particular point to any point within the working area may prove critical in a safety of life situation. | | | |
| What effect does this challenge have on operations? | | | |
| Forest type, tree heights, and thickness of ground cover affect the planning of a seismic survey. Vegetation clearance demands time and increases health and safety exposure. Forest roads/trails can be impassable in different seasons and be in poor condition. | | | |
| Thematic information requirements: | Terrain information Land cover Topographic information | | |
| What do you currently do to address this challenge? How is this challenge conventionally addressed? | | | |
| Field scouting and reconnaissance is usually required. LiDAR where convenient and satellite imagery is also used. | | | |
| What kind of solutions do you envisage could address this challenge? | | | |
| Bare earth digital terrain models equivalent to LiDAR. High-resolution images that can identify tracks, roads and water courses would be useful. Temporal datasets would also be useful to assess seasonal variations and create a pre-survey baseline. | | | |
| What is your view on the capability of technology to meet this need? Are you currently using EO tech? If not, why not? | | | |
| Identifying suitable access through forested areas is difficult from satellite imagery alone. LiDAR reflectance values and wave form analysis can observe canopy and ground height. | | | |
| Challenge Classification | | | |
| Impact on Lifecycle (0=none, 4=high): | | Climate / Topography / Urgency: | |
| Pre-license: | 2 | Climate class: | Generic climate |
| Exploration: | 4 | Topographic class: | Forest / woodland |
| Development: | 2 | Seasonal variations: | Any season |
| Production: | 2 | Impact area: | Health and Safety, Cost reduction |
| Decommissioning: | 1 | Technology urgency: | 2 - Short term (2-5 years) |
| Challenge Information Requirements | | | |
| Update frequency: | Snapshot | | |
| Data currently used: | LiDAR, high resolution imagery | | |

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| Spatial resolution: | License |
| Thematic accuracy: | Not specific |
| Required formats: | Not Specific |
| Timeliness (Vintage): | Within six months |
| Geographic extents: | Basin |
| Existing standards: | None |

Relevant products

Content by label

There is no content with the specified labels