

# Hatfield-1215: Identify UXO related hazards

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## Challenge

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| <b>Challenge ID:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | HCP-1215                                                                                   | Originator:                     | Onshore: Hatfield                 |
| <b>Title:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>Identify UXO related hazards.</b>                                                       |                                 |                                   |
| <b>Theme:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ON 1.2: Seismic Planning - Identification of adverse terrain for trafficability            |                                 |                                   |
| <b>Consortium Lead:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | RPS Group                                                                                  | <b>Interviewed Company:</b>     | RPS Group                         |
| <b>Geography:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ON.REG.00 - Generic onshore                                                                |                                 |                                   |
| <b>Challenge Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                            |                                 |                                   |
| What is not possible / not adequately addressed at present?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                            |                                 |                                   |
| Historical conflicts present health and safety risks for surveys with numerous Explosive Remnants of War (ERW). In Poland this is prevalent in border areas where the Eastern front of WWII saw heavy fighting. Some areas have fallen into mis-use and never been cleared. Both farmed and forested areas pose a risk to Vibroseis activity and dynamite operations that could disturb ERW/UXO located below usual tillage depths. In addition forested areas pose a risk to receiver layout crews where ERW has laid undisturbed since the conflict. In more modern conflicts like Iraq and Kurdistan many cluster munitions and minefields remain in place and pose a serious risk to all workers. |                                                                                            |                                 |                                   |
| What effect does this challenge have on operations?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                            |                                 |                                   |
| Projects need to have potential areas with ERW identified, delineated and possibly cleared for ERW/UXO. This effort can be significant both in time and cost.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                            |                                 |                                   |
| Thematic information requirements:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Terrain information<br>Land Use<br>UXO hazard<br>Distribution and status of infrastructure |                                 |                                   |
| What do you currently do to address this challenge?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                            |                                 |                                   |
| How is this challenge conventionally addressed?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                            |                                 |                                   |
| Creation of a battle picture from archived satellite imagery. UXO clearance survey procedures on the ground.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                            |                                 |                                   |
| What kind of solutions do you envisage could address this challenge?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                            |                                 |                                   |
| Airborne or satellite solution would be useful. This could be high resolution imagery and thermal imaging techniques.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                            |                                 |                                   |
| What is your view on the capability of technology to meet this need?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                            |                                 |                                   |
| Are you currently using EO tech? If not, why not?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                            |                                 |                                   |
| Although many modern ERW are constructed to avoid detection, thermal and magnetic imaging may show up particular items. High resolution imagery will help assist identifying both offensive and defensive positions and cluster bomb strike locations.                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                            |                                 |                                   |
| <b>Challenge Classification</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                            |                                 |                                   |
| Impact on Lifecycle (0=none, 4=high):                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                            | Climate / Topography / Urgency: |                                   |
| Pre-license:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1                                                                                          | Climate class:                  | Generic climate                   |
| Exploration:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 2                                                                                          | Topographic class:              | Not specific                      |
| Development:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1                                                                                          | Seasonal variations:            | Any season                        |
| Production:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 1                                                                                          | Impact area:                    | Health and Safety, Cost reduction |
| Decommissioning:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1                                                                                          | Technology urgency:             | 3 - Immediately (0-2 years)       |
| <b>Challenge Information Requirements</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                            |                                 |                                   |
| Update frequency:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Snapshot                                                                                   |                                 |                                   |
| Data currently used:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Ground survey                                                                              |                                 |                                   |

|                       |                |
|-----------------------|----------------|
| Spatial resolution:   | Basin          |
| 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