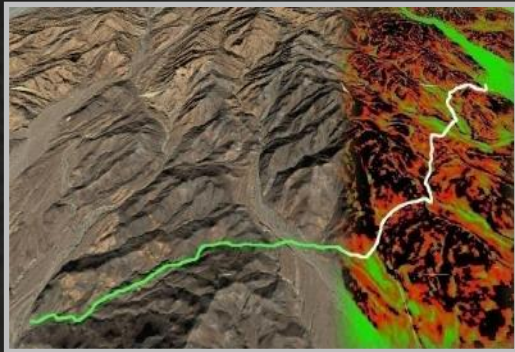




Ground Guidance[®]

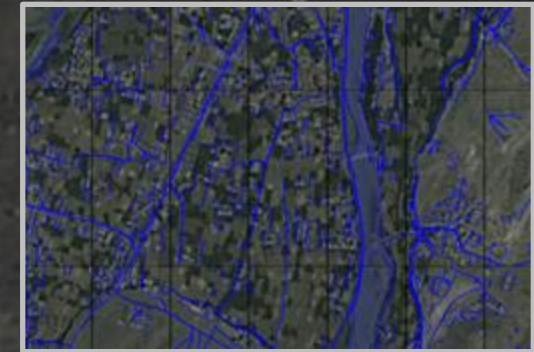
Land cover extraction for off-road navigation and route planning



Ground Guidance route overlaid on cost map data



Ground Guidance Army Land Warrior integration



Extracted vector land cover in Asadabad

Ground Guidance

- Ground Guidance is patented software for planning on and off-road routes.
- Routes are optimized based on speed, concealment, energy consumption and other factors.
- Integrated with Army Land Warrior, the Movement Tracking System (MTS), and the Falcon View Mission Planning software.
- Winner Nokia Global Apps on Maps competition. Tibbetts award from the Department of Defense for innovation and impact of SBIR funded research.

Asadabad Land Cover

- Under contract from Natick soldier center Ground Guidance is being updated to account for metabolic routing factors
- Natick required high quality routable map data for Asadabad, Afghanistan.
- Experimented in this test with using Ooze to extract 7 land cover types for a portion of Asadabad.
- 196 subtask tiles.
- 5 Ooze workers; 2-3 QA subtasks per tile.
- Intranet deployment.

Results

- Time: 4.1 sec / subtask / worker
- In addition to Ooze internal QA, quality assessed in 3rd party GIS tool with random sampling.
- Extracted all visible land cover in 100% (+/-10, 90% conf) of tiles within test sample, with features passed in ambiguous cases.
- Planned improvements prior to using Ooze for upcoming Natick demo include added mechanisms to enforce inter-subtask consistency.