FAQs – Cold Regions Research and Engineering Laboratory CSO

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What building materials are being used for cold weather structures and do they impact permafrost?

The UFC 3-130, Arctic and Sub-Arctic Construction series, is recommended for preeminent engineering guidance to inform design teams on the intricacies of cold regions engineering, specialty methods, and materials; however, the series is considered inactive and in need of updates. SERDP/ESTCP is currently funding an effort to look into providing needed updates (project #RC20-5303). Considerations include:

- Current Arctic and sub-Arctic installations rely on one-off, stick-built construction similar or identical to CONUS construction techniques
- State-of-the-art site characterization will maximize efforts across the installation
- Mitigation and repair strategies will be required to overcome design shortfalls, allow for continued Arctic adaptation at remote/austere locations

Are solutions preferred to be workable in a GPS-denied environment, or are solutions relying on GPS for real-time positioning during data collection acceptable? Will soldiers and vehicles be able to use GPS-based deliverables?

Solutions at the prototype stage can rely on GPS for real-time positioning during data collection. The Army plans to adapt any solution to address transition opportunities.