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Remote
ResponseUnmanned
TeamAircraft
Development

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System
in the(UAS)
BeringInspection
Strait

S

and
Region

This project has five primary objectives:

- 1- Training UAS Pilots in NVU.
- 2- Co-Production of Infrastructure Assessment Operational Protocols with NVU.
- 3- Co-Production of Emergency Assessment Protocols with NVU.
- 4- Conduct a regional expansion feasibility study of UAS training program.
- 5- Sharing lessons learned and resulting products with the broader USCG and Alaskan community.

Conducting required rural area key infrastructure testing for safety compliance across Alaska (in particular, Western Alaska) is a time and resource challenge for the U.S. Coast Guard (USCG). Normal USCG processes require USCG inspectors to physically fly from home station to remote regions to conduct hands and eyes on tests. Integrating remote sensing tools, such as unmanned aircraft systems (UAS), into the operational environment of remote, sparsely populated, western Alaska has the potential to increase the efficiency of USCG infrastructure inspection missions, while supporting the expansion of community Science, Technology, Engineering and Math (STEM) capacity. To demonstrate this integration concept, project investigators designed a program to train a set of UAS pilots, (equipped with U.S. manufactured UAS platforms) in the Bering Strait hub community of Unalakleet, Alaska, to conduct infrastructure inspections, specifically oil-containing infrastructure, and emergency response (ER) actions in support of local and/or regional crisis. The major components of the investigations are to train approximately eight pilots within Unalakleet to safely operate UAS and become certified under the FAA Part 107 rule; to co-produce infrastructure inspection protocols (IIP) and emergency response (ER) flight protocols with members of the Native Village of Unalakleet, the USCG (specifically, USCG District 17, Sector Anchorage and the core project team). Planned investigations will determine the feasibility of the expansion of the program, statewide, potentially (and ultimately), nationwide; and to disseminate lessons learned to a broad audience of non-technical and technical stakeholders. This work will be conducted over the course of an 18-month period and employ a combination of remote delivery and face-to-face methods of execution. The critical outcome of this program will be a research knowledge product of the investigations for USCG consideration as well as a set of trained pilots and flyable UAS staged in the Bering Strait region, prepared to efficiently support community and USCG maintenance inspection and emergency response needs if/as desired by USCG or facility.



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