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# Technology for autonomous monitoring and investigations of polar environments

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Recent advances in low-power communications using either the new Iridium data capabilities now available (SBD, SMS) or spread spectrum RF low cost radios has allowed the development of a plethora of systems that can stream transmit data (and receive commands) reliably in real time from very remote locations. This has allowed the development of sites or systems where one can put up instruments (cameras, gps, weather monitors, etc.) to collect data and not need to return to the site for data download. This has then expanded the possibilities where sites can be located by either removing the logistical costs of returning or being able to put sites where it would be too dangerous to return (tip of surging glaciers, crevasse locations, volcanoes, etc.). This talk will present the multitudes of devices built (or in design) so far by us for the polar regions (Greenland/Antarctica/Alaska)