# **Summit Station Requirements Questionnaire**

## **Project name:**

## **Proposal/grant #:**

## **Point of contact name:**

## **Point of contact email:**

## **Point of contact phone:**

## **Collaborators:**

The purpose of this document is to capture the project requirements for both proposed and funded projects at Summit Station.

The primary motivation for operating Summit as a year-round station is to provide a platform for the long-term measurement of climate-relevant and regionally representative parameters, thus NSF-OPP, CPS, and the community of climate researchers working at Summit are dedicated to minimizing the impact of the station on the local study site. Proposed new or continuing research at Summit should be:

* Directly relevant to understanding current climate and documenting change (not duplicating current efforts)
* Or, focuses on adding value and rigor to the interpretation of the Summit ice core records
* Or, reliant on data records and/or data streams that are unique to Summit

The Science Coordination Office (SCO) will assist in defining if research fits the Summit criteria for re. Investigations that could be successfully undertaken at a location like Summit but do not meet criteria above will be encouraged to consider alternative locations. Please contact the SCO ([*sco@summitcamp.org*](mailto:sco@summitcamp.org)) during your planning process in order to assure the appropriate integration of your project into other activities at Summit Station.

This document is used as a tool to help determine project scope if work is approved. Collection of these requirements is not an agreement that resources that will be provided. Requirements provided here form the basis for support cost estimates and resource allocation plans and so should be as complete as possible; resources not identified here may require separate NSF approval, or could be unavailable. Please fill out the questions below completely and contact [*ian.g@polarfield.com*](mailto:sam@polarfield.com) with any questions.

### **Please provide a short description of your project activities and scientific objectives:**

### **Is your experiment/instrument year-round or seasonal?**

### **What is the duration/lifetime of the project? Please give specifics on desired start/end – month and year.**

### **Please outline a proposed deployment schedule in the table below.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Participant Name if known** | **Date in (month/yr.)** | **Date out (month/yr.)** | **Days at Summit** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

### **Please outline your estimated cargo requirements. Include items shipped directly from vendors or project partners such as the US Ice Drilling Program (IDP/IDDO).**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Description** | **Weight (lbs)** | **Dimensions (L x W x H)** | **Special handling; Do Not Freeze, Keep Frozen, Hazardous, etc.** | **Round trip?** |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

### **Does your project include offsite travel? Please describe this travel, including frequency, destination, and requirements for transporting personnel and cargo.**

### **Please indicate your physical space requirements. Include work area for duration of project, temporary staging space, longer-term storage for crates or spare parts, office/desk area, access to a clean room, wet lab, etc. Please also note any wall/roof penetrations, tower mounting, access to clear sky/clean show/clean air etc. Depending on available Summit resources, space requirements not outlined here may be difficult to accommodate in the field, so please include contingency requirements, e.g., in case repairs on larger components take place. If needed, include additional notes beyond the table below. Attach photos of instrumentation if available.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Description** | **Dimension (LxWxH)** | **Time period** | **Indoor/outdoor? Heated? Other requirements?** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

### **Please provide temperature requirements for your installation. Please include optimal operating temperature, min/max temperatures, and storage temperature:**

### **Is your instrument/experiment sensitive to external factors such as vibration, dust, noise, radio interference, humidity variations, exhaust from internal combustion sources, etc.? Please describe.**

### **Please provide your power requirements. Please include all instruments, computers, peripherals, pumps, electrical heaters, etc.:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Equipment** | **Period of use** | **Avg. load (kW)** | **Peak load (kW)** | **Duration of peak (hr./wk.)** | **Voltage (V), AC/DC, Freq. (Hz)** | **UPS needed?** |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

### **Does your instrument or experiment have any other requirements? Such as heated conduit, buried lines, overhead lines, snow disturbances, clear sky view, clean power, ultra-pure water, etc.**

### **Does your instrument or experiment require shipment/handling/storage of hazardous materials such as flammables, compressed gases, radioactive sources, batteries, liquid nitrogen, etc.? If so, please describe.**

### **Does your instrument/experiment produce any waste (hazardous or not) that must be shipped out? Please describe.**

### **Does your instrument have other potential hazards (chemical usage, high voltage, eye hazards, non-commercial electric components, excessive noise levels, etc.)?**

### **Does your instrument/experiment require any special ventilation or pressurization? Please describe.**

### **Do you require any storage or shipment of samples? Please describe temperature and other requirements.**

### **Do you require any custom excavations (trenches, pits, etc.)? Please describe specific lengths, frequency of access, and any support needed for establishing.**

### **Does your project have devices that transmit at a specific frequency? If yes, what frequency, power level, and directions. Are permits required for this activity?**

### **Do you need static IP addresses? Approximate length of time it is required. Devise hostname(s) and description.**

### **Do you intend to regularly access to your instrument/experiment computer remotely? Via what method?**

### **Do you wish to have any regular upload and/or download data transfers? If so, please describe size and frequency of the requirements.**

### **If data is unable to be transferred via network, is it acceptable for data to be stored/downloaded and sent to you? If so, please state desired frequency.**

### **Please describe the frequency and duration of tech support you require from this project. Please estimate of hours/week and provide tasking description. Technician support activities vary greatly between projects, but common requirements might include scheduled status checks or sampling, remote diagnostics with PIs during issues, swap out of replacement components, frost removal, actions during planned or unplanned power or network outages, periodic lifts of equipment above snow accumulation, and inspection of outdoor systems, among others.**

### **Is support required beyond the hours of 8am-6pm locally at Summit?**

### **Please describe any technical skills that a tech would need to support your project (ex. Low voltage wiring/soldering, computer networking, etc.):**

### **A written protocol is required for the care of your experiment/instrument. If you can supply now, please attach them.**

### **Please provide any additional comments or specifics regarding successful support of your instrument/experiment**.