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COVID-19 Management Plan for the United States Antarctic Program
FY24 Austral Summer

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1. Purpose

The purpose of this plan is to establish the methods the United States Antarctic Program (USAP) will use to manage illness resulting from COVID-19 during the fiscal year 2024 research season. The methods included here are in addition to the health and hygiene protocols (e.g., handwashing stations, cleaning regimens) already in place across the USAP. These methods will be implemented by the Antarctic Support Contractor (ASC) through detailed standard operating procedures.

2. Objective

Ensuring the health and safety of deploying USAP personnel while they accomplish the important work of the nation in Antarctica is the National Science Foundation's (NSF) highest priority. At the start of the COVID-19 pandemic, drastic measures were taken to prevent COVID-19 from reaching our stations. While these efforts were successful for two seasons, these necessary protocols created devastating impacts on USAP's mission and severely affected deploying personnel. Last season, NSF shifted from a prevention strategy to a management strategy – a shift that also had significant consequences.

For the 2024 research season¹, the USAP will focus on identifying and managing individuals who are symptomatic and require clinic-level care. The objective for the season is to provide care to those individuals, either in situ or through timely medical evacuation, to avoid serious, negative health outcomes.

To achieve this objective, the following principles will be used.

- Prevention – The initial health of deploying personnel will be screened through the USAP physical qualification (PQ) process and gateway COVID-19 testing.
- Monitoring – Deployed personnel who feel sick will be evaluated by clinic or vessel medical staff who will determine an appropriate testing and care plan.
- Treatment – Deployed personnel who require clinic-level care will receive it from a team equipped with appropriate tools. Those whose symptoms are increasing or who are at high risk for complications will be evacuated.
- Response – Data will be monitored throughout the season, and adjustments will be made if the risk of COVID-19 to deployed personnel increases beyond what is currently understood.

While this plan lays out common and consistent planned protocols, unique situations can sometimes arise in Antarctic operations and some flexibility will be necessary to ensure safety and mission success.

¹ The research season begins at WinFly, the period from late summer to around the end of September where opening summer season station staff and early season critical science personnel are flown in on a limited number of flights.

3. Applicability and Compliance

This policy applies to all USAP personnel, whether directly supported or hosted by the USAP, deployed to U.S.-managed Antarctic stations, field camps, and vessels. Each USAP participant deployed to these sites is required to adhere to this policy.

This policy does not apply to USAP participants deployed to other governmental stations, field camps, and vessels as part of another national program. These participants will follow the policies of the host country.

4. Responsibilities

The Antarctic Support Contractor (ASC) is responsible for developing procedures to implement this policy.

5. Prevention

5.1. Physical Qualification (PQ) Guidelines

All deploying USAP personnel must be deemed physically qualified for participation in the program based on guidelines established by NSF in consultation with an external medical review panel.

- PQ guidelines were modified during the pandemic to provide additional screening against COVID-19 risk factors identified by the Centers for Disease Control and Prevention (CDC). Those guidelines will continue to be applied to all deploying personnel. Deploying personnel will also be required to provide proof of current (up to date²) COVID-19 vaccination.
- Waivers, including to the vaccination requirement, can be provided at the discretion of the NSF Senior Advisor for Medical and Safety.

5.2. Prior to Deployment

Note Most USAP deploying personnel depart from their home location in the United States and travel to the appropriate gateway via commercial airline flights.

- Deploying personnel will be provided information about COVID-19 protocols so they can make informed decisions prior to departure based on their risk tolerance.
- All USAP deploying personnel will be asked to acknowledge their intent to comply with the *Polar Code of Conduct* (OPP-POL_6000.01) and the Health and Safety Pledge.
- Resources from the CDC about how to travel safely will be shared with deploying personnel.

² <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/stay-up-to-date.html>

- Deploying personnel will be strongly encouraged to wear a face covering in public settings for five days prior to deployment and on all forms of public transportation during their journey to gateway cities.
- All science teams, partner agencies, and contractors will be asked to develop a contingency plan with appropriate scope reductions to accommodate individuals testing positive and requiring isolation during deployment travel.

5.3. At the New Zealand Gateway

Christchurch, New Zealand is the departure gateway for all travelers bound for McMurdo Station, including deploying personnel who are transiting through McMurdo Station on their way to South Pole Station and field camps. The USAP has medical support services in Christchurch.

- Deploying personnel who attest to having had a confirmed case of COVID-19 in the prior 90 days will be administered a Rapid Antigen Test (RAT) shortly after arrival. If negative, southbound travel can commence. If positive, New Zealand requirements for isolation (currently seven days) must be met.
- Deploying personnel who do not attest to a recent case of COVID-19 will receive a polymerase chain reaction (PCR) test³. If the result is negative, southbound travel can commence. If the result is positive, New Zealand requirements for isolation (currently seven days) must be met.
- Following the mandatory period of isolation, CDC protocols for “testing out⁴” of mask-wearing will be used. If on the ice, deployed personnel will not be permitted in social gathering spaces until they are no longer required to wear a mask.
- COVID-positive participants will be able to travel southbound on Day 11 unless a fever is present and/or symptoms have not improved as judged by the Christchurch medical provider.
- Weather or aircraft-related delays to southbound flights can occur, and any travelers who received a negative test but begin to experience COVID-19 symptoms before their flight must notify the Christchurch medical team for evaluation.
- If, during the season, New Zealand lifts its isolation requirement, positive cases in New Zealand will complete five days of isolation prior to southbound travel. Following the mandatory period of isolation, CDC protocols for “testing out” of mask-wearing will be used. If on the ice, deployed personnel will not be permitted in social gathering spaces until they are no longer required to wear a mask.
- All deploying personnel will be strongly encouraged to wear a face covering in public settings while in the gateway cities.

³ If laboratory capabilities or testing supplies become unavailable during the season at a gateway or embarkation point, all deploying personnel will shift to a RAT test.

⁴ With two sequential negative tests 48 hours apart, deploying personnel may discontinue mask use sooner than day 10.

5.4. At the Chilean Gateway and Research Vessels Departing Lyttelton, New Zealand

Punta Arenas, Chile is the departure point for most research cruises as well as for vessel-based transport to Palmer Station and Kenn Borek Air (KBA) aircraft transiting to McMurdo Station. The USAP has limited medical services there. Occasionally, research cruises also depart from Lyttelton, New Zealand, with support from the Christchurch medical support team.

- Deploying personnel and vessel crew members who attest to having had a confirmed case of COVID-19 in the prior 90 days will be administered a RAT shortly after arrival. If negative, they can board the vessel. If positive, five days of isolation will be required prior to embarkation in Chile, or seven days if New Zealand. Following the mandatory period of isolation, CDC protocols for “testing out” of mask wearing will be used. Deploying personnel will not be permitted in social gathering spaces until they are no longer required to wear a mask.
- Deploying personnel and research vessel crew members who do not attest to a recent case of COVID-19 will receive a PCR test. If the result is negative, they can board the vessel. If the result is positive, five days of isolation will be required prior to embarkation in Chile, or seven days if New Zealand. Following the mandatory period of isolation, CDC protocols for “testing out” of mask-wearing will be used. Deploying personnel will not be permitted in social gathering spaces until they are no longer required to wear a mask.
- Following the mandatory minimum period of isolation, participants that have tested positive can be moved on the vessel during the mandatory mask-wearing phase, if approved by the NSF Medical activity-based manager.
- All deploying personnel will be strongly encouraged to wear a face covering in public settings while in the gateway cities.

6. Monitoring and Treatment

All stations and vessels will make RATs freely available to deployed personnel for self-testing. Individuals who test positive on a RAT test must don a KN-95 mask and immediately report the case to Medical.

To the extent possible, equipment (e.g., portable computing) will be made available to enable COVID-19 positive individuals to work during periods of mandatory isolation.

All science teams, partner agencies, and contractors must develop a contingency plan with appropriate scope and schedule contingency to accommodate individuals testing positive and requiring isolation.

The USAP will have the ability to deploy vaccines to stations and vessels as needed.

An appropriate number of beds and berths will be held at all stations and vessels for isolation of COVID-positive individuals who do not require clinic care.

6.1. McMurdo Station, Near Field Camps, and Traverses

McMurdo Station is the USAP hub on the continent from which all other locations, with the exception of Palmer Station, operate. McMurdo Station has a staffed, well-equipped

medical clinic and is routinely accessible from Christchurch during the austral summer by commercial and military aircraft. As a result, the risk that personnel at McMurdo Station, its nearby field camps, and the majority of traverses would not be able to be successfully treated and/or medically evacuated back to New Zealand is lower than any other USAP location.

- Deployed personnel planning to overnight at deep field camps must wear a KN-95 mask for five days prior to camp put-in when in indoor public settings and unable to maintain a distance of six feet from others. During these five days, individuals will get “takeaway” food from the galley and will not be permitted in social gathering spaces (e.g., bars and lounges).
- Deployed personnel will alert the clinic if they need medical care. The clinic team will determine whether and how to test for COVID-19 to support diagnosis and treatment decisions.
- Deployed personnel who test positive for COVID-19 but do not require clinic-level care will be isolated in a dormitory room at McMurdo Station set aside for that purpose. During the first five days of isolation, individuals will leave their rooms only when necessary and must always wear a KN-95 mask when doing so.
- After the first five mandatory minimum days of isolation, deployed personnel can leave their rooms but must not go places where wearing a mask is not possible.
- Following the mandatory minimum period of isolation, CDC protocols for “testing out” of mask-wearing will be used. Deployed personnel will not be permitted in social gathering spaces until they are no longer required to wear a mask. Once mask wearing is no longer required, they will return to their assigned lodging.
- Deployed personnel can work during isolation and mandatory mask-wearing if cleared to do so by clinic medical staff based on the severity of symptoms, their work environment, and if deemed necessary by their supervisor.
- Deployed personnel who require clinic-level care⁵ will receive it in the McMurdo Station Clinic, which is equipped with a Biofire testing machine, a supply of Paxlovid, the ability to administer supplemental oxygen, and reach-back telemedicine capabilities. Suitable space will be available to treat at least five individuals concurrently.
- Deployed personnel whose symptoms are increasing and/or the clinic staff determines are at high risk for complications will be evacuated off the continent.
- Deployed personnel will be released from clinic care at the discretion of the clinic team, who will also establish necessary restrictions on work assignments, timing of onward deployments, or need for follow-up visits.
- Traverse operations shall be treated in a similar way as described above for near field camps; RAT supplies will be carried, and reach-back medical support will be available through telemedicine by satellite phone.

⁵ The patient’s oxygen requirement is greater than four liters/minute to keep oxygen saturation greater than 91% or the patient exhibits dyspnea (difficult or labored respiration) with a low level of exertion.

6.2. South Pole Station

South Pole Station has a staffed, well-equipped medical clinic; however, the USAP's ability to move deployed personnel between South Pole and McMurdo stations (through which they transit back to New Zealand) is weather dependent with frequent gaps. As a result, it is likely that medical evacuations to New Zealand, if necessary, could be delayed. In addition, South Pole Station is at high altitude, which presents unique health risks for those deployed personnel.

- All new arrivals will wear a KN-95 mask for the first five days on station when they are indoors and unable to maintain a distance of six feet from others. During this time, they will get “takeaway” food to eat in their rooms and will not be permitted in social gathering spaces.
- Deployed personnel will alert the South Pole Station Clinic if they need medical care. The clinic team will determine whether and how to test for COVID-19 to support diagnosis and treatment decisions.
- Deployed personnel who are tested for COVID-19 and have a positive result but do not require clinic-level care will be isolated in their room. During the first five days of isolation, individuals will leave their rooms only when necessary and must always wear a KN-95 mask when doing so.
- After the first five mandatory minimum days of isolation, deployed personnel can leave their rooms but must not go places where wearing a mask is not possible.
- Following the mandatory minimum period of isolation, CDC protocols for “testing out” of mask-wearing will be used. Deployed personnel will not be permitted in social gathering spaces until they are no longer required to wear a mask.
- Deployed personnel can work during isolation and mandatory mask-wearing if cleared to do so by clinic medical staff based on the severity of symptoms, their work environment, and if deemed necessary by their supervisor.
- Deployed personnel who require clinic-level care at South Pole Station will be supported by a Biofire testing machine, a supply of Paxlovid, the ability to administer supplemental oxygen, and telemedicine reach-back capabilities. Suitable space will be available to treat at least two individuals concurrently.
- Deployed personnel who are determined by the clinic to likely need clinic-level care will be medically evacuated back to McMurdo Station at the first opportunity, where they will be evaluated and either treated there or moved off the continent.
- Deployed personnel who have been medically evacuated to McMurdo Station whose symptoms are increasing or who are at high risk for complications will be evacuated off the continent.
- Deployed personnel will be released from clinic care at the discretion of the clinic team, who will also establish necessary restrictions on work assignments, timing of return deployment to South Pole Station, if applicable, or need for follow-up visits.

6.3. Deep-Field Camps

Deep-field camps have limited medical support capabilities, depending on the size of the camp. In addition, the USAP's ability to move deployed personnel to and from the camps

from McMurdo Station is weather dependent with frequent and lengthy gaps. As a result, it is likely that medical evacuations, if necessary, could be severely delayed. In addition, some of the camps are at high altitude, which presents unique health risks for personnel at those locations.

Deployed personnel must wear a KN-95 mask for five days prior to camp put-in when in indoor public settings and unable to maintain a distance of six feet from others. During these five days, deployed personnel will get “takeaway” food from the galley and will not be permitted in social gathering spaces (e.g., bars and lounges).

- Deployed personnel will alert the on-site medical support personnel if they need medical care. The on-site medical support personnel will consult with the McMurdo Station Clinic team to determine whether to test for COVID-19 to support diagnosis and treatment decisions. If testing is deemed necessary, the medical team will determine the plan for testing and whether/when to move the individual from the field camp back to McMurdo Station.
- Deployed personnel who do not require clinic-level care will isolate in a single-occupancy space in the field camp or be moved back to McMurdo Station at the discretion of the clinic medical staff.
- If the individual remains at the field camp, they will leave their isolation space only when necessary and must always wear a KN-95 mask when doing so for a minimum of five days.
- After the first five mandatory minimum days of isolation, deployed personnel can leave their isolation space but must not go places where wearing a mask is not possible.
- Following the mandatory minimum period of isolation, CDC protocols for “testing out” of mask-wearing will be used. Deployed personnel will not be permitted in social gathering spaces until they are no longer required to wear a mask. Once mask wearing is no longer required, they will return to their assigned lodging.
- Deployed personnel can work during isolation and mandatory mask-wearing if cleared to do so by clinic medical staff based on the severity of symptoms, their work environment, and if deemed necessary by the supervisor.
- Clinic-level care will be administered by the McMurdo Station Clinic. Deployed personnel whose symptoms are increasing or who are at high risk for complications, as determined by the clinic team, will be evacuated off the continent immediately.
- Deployed personnel receiving clinic-level care will be released from that care at the discretion of the clinic team, who will also establish necessary restrictions on work assignments, timing of return deployment to the deep field, or need for follow-up visits.

6.4. Palmer Station

Palmer Station has a staffed, well-equipped medical clinic; however, air transportation is not supported into or out of the station, making all movements to and from the gateway in Chile vessel-based and therefore longer in duration (a crossing can take anywhere from five to ten days).

- Deployed personnel will alert the clinic if they need medical care. The Palmer Station Clinic team will determine whether and how to test for COVID-19 to support diagnosis and treatment decisions.
- Deployed personnel who are tested for COVID-19 and have a positive result but do not require clinic-level care will be isolated in a dormitory room set aside for that purpose (which may include a clinic bed).
- During the first five days of isolation, individuals will leave their rooms only when necessary and must always wear a KN-95 mask when doing so.
- After the first five mandatory minimum days of isolation, deployed personnel can leave their rooms but must not go places where wearing a mask is not possible.
- Following the mandatory minimum period of isolation, CDC protocols for “testing out” of mask-wearing will be used. Deployed personnel will not be permitted in social gathering spaces until they are no longer required to wear a mask. Once mask wearing is no longer required, they will return to their assigned lodging.
- Deployed personnel can work during isolation and mandatory mask-wearing if cleared to do so by clinic medical staff based on the severity of symptoms, their work environment, and if deemed necessary by their supervisor.
- Deployed personnel who require clinic-level care will receive it in the Palmer Station Clinic, which is equipped with a Biofire testing machine, a supply of Paxlovid, the ability to administer supplemental oxygen, and telemedicine reach-back capabilities. Suitable space will be available to treat at least two individuals concurrently.
- Deployed personnel whose symptoms are increasing, or the clinic determines are at high risk for complications, will be evacuated off the continent.
- Deployed personnel will be released from care at the discretion of the clinic team, who will also establish necessary restrictions on work assignments, timing of return deployments, or need for follow-up visits.

6.5. Onboard the Research Vessels

The USAP’s two research vessels – the N.B. Palmer and the L.M. Gould – support research and logistics cruises ranging from five days to six weeks in duration. Each vessel has a sick bay, but medical staffing varies depending on the cruise. Cruises can take the vessels far from medical evacuation capabilities, especially on longer cruises.

- Deployed personnel will alert the designated medical staff if they need medical care. The clinic team will determine whether and how to test for COVID-19 to support diagnosis and treatment decisions.
- Deployed personnel who are tested for COVID-19 and have a positive result but do not require clinic-level care will be isolated in berthing set aside for that purpose (which may include a clinic bed).
- During the first five days of isolation, individuals will leave their rooms only when necessary and must always wear a KN-95 mask when doing so.
- After the first five mandatory minimum days of isolation, deployed personnel can leave their rooms but must not go places where wearing a mask is not possible.

- Following the mandatory minimum period of isolation, CDC protocols for “testing out” of mask-wearing will be used. Deployed personnel will not be permitted in social gathering spaces until they are no longer required to wear a mask. Once mask wearing is no longer required, they will return to their assigned lodging.
- Deployed personnel can work during isolation and mandatory mask-wearing if cleared to do so by medical staff based on the severity of symptoms, their work environment, and if deemed necessary by their supervisor.
- Deployed personnel who require clinic-level care will receive it in the vessel sick bay, which will be equipped with RAT tests, a supply of Paxlovid, the ability to administer supplemental oxygen, and telemedicine reach-back capabilities. Suitable space will be available to treat two individuals concurrently.
- All cruises longer than two weeks in duration will include enhanced medical staffing on vessels.
- Deployed personnel whose symptoms are increasing or who are determined to be at high risk for complications by the designated medical staff will be evacuated as soon as possible.
- Deployed personnel will be released from care at the discretion of the designated medical staff, who will also establish necessary restrictions on work assignments, timing of return deployments, or need for follow-up visits.

6.6. Non-Governmental Organizations

- Non-governmental organization (NGO) groups will only receive tours at any of the stations on receipt of confirmation from the NGO management that all members of the group received a negative RAT or PCR test result within 72 hours of departing for the designated station.
- NGO groups and staff will be required to wear KN-95 masks to enter the station for tours, and the station representative that provides the station tour will be required to wear a KN-95 mask during the tour’s duration.

7. Response

This USAP COVID-19 infection control plan is based on NSF/OPP’s current understanding of the level of risk that COVID-19 presents to deploying personnel. Throughout the season, NSF/OPP will be monitoring data to detect an increase in that risk so that adjustments to the plan can be made. Table 1 below shows the metrics that will be monitored, indicators of increased risk that may require a shift in approach, the likely response, and the level of authority at which the decision to shift protocols resides.

Prior to the start of the season, these metrics and responses will be refined to include detailed procedures for implementation.

Table 1: Risk Level Monitoring Criteria

Metric	Indicator	Responses	Authority
The specific circumstances of every COVID-related medical evacuation will be evaluated	Various causal factors, including those related to PQ screening are identified	Evaluate the need to modify any policies and procedures, including PQ guidelines (PQ Guidelines changes would be made in consultation with the USAP Medical Review Panel) Review the population for prevalence of those causal factors	NSF Safety and Occupational Health Officer with Concurrence from the OPP Director
The number of COVID-related medical evacuations	More than one urgent COVID-related medical evacuation in a two-week period	Consider pausing inbound deploying personnel until the cause is understood and additional mitigations have been considered	OPP Director
The occupancy of clinic beds	Reaches 75%	Establish additional bed space and deploy more medical staff	NSF Safety and Occupational Health Officer with Concurrence from the AIL Section Head
Positive cases in each cohort at the gateways	More than 5%	Remaining members of that cohort will be required to wear KN-95 masks for the first five days on vessel/station.	Appropriate ASC Area Manager
Information from the World Health Organization and CDC	Information that suggests the emergence of higher risk strains or new co-morbidities that apply generally to the USAP population	Assess risk and determine appropriate actions, which may include activating a station drawdown to minimum levels for safe and stable occupancy	Recommended by the OPP Director and approved by the NSF Director

8. Policy Review

This policy is valid until rescinded. It will be reviewed at an interval of not more than five years.