SPT South Pole Deployment Guide

Last updated: 2023-05

1. What to expect before going to the South Pole?

Describe the process about what to expect regarding initial emails from USAP; PQ process; differences between medical, dental and travel forms and relevant timescales; and eventual ticketing.

There is a lot of useful general information on the USAP website, in particular on their "Participant Guide", which includes much of the essential travel information:

https://www.usap.gov/travelanddeployment/541/ Complete Participant Guide (READ ME!)

Please read the Participant guide! We expect you to follow the rules and regulations laid out there! Note the 'Polar Code of Conduct' in the Appendix on page 65.

Your PQ packet, start scheduling your medical and dental appointments as soon as possible after you get the packet. Most of your medical tests can likely be done in a morning or afternoon, by just scheduling an appointment with your general practitioner or University health provider. When you go in for your appointment, give the doctor your Medical form from your packet, explain the situation (e.g., "I'm going to the South Pole for multiple months, and need this physical form filled out, and the tests on this second form"), and they will likely get most of your tests done that day. The Medical tests basically consist of a general physical, and drawing several vials of blood for further tests (that take a ~couple days to get results). It is very convenient to go through Labcorp directly to get your bloodwork done, so that it gets sent straight to UTMB; you also get a copy of the report that you can then take to your physical for your doctor to check over. There will likely be some additional tests that are applicant dependent, like a EKG, stool sample, gallbladder ultrasound, mammogram, etc., but they will depend on your age, summer vs winter deployment, first-deployment or not, etc. From past experience, I've also found that my GP doesn't do things like eye exams or pelvic exams, so you'll want to schedule those separately; If you know your doctor won't do that part of the exam, I find it useful to try to do those ahead of the main physical, and have each of the providers sign their particular sections of the physical exam form first, so that again your GP can have all of the info in front of them and can sign off on your general health. You should check with your insurance provider on this however, because sometimes you may need a referral from your GP before scheduling particular appointments or bloodwork. Regardless, the form in your Medical packet will tell the doctor exactly what tests to run. If there is anything at all out of spec on your tests or physical (e.g., your hematocrit is slightly out of range), it likely will be good for your doctor to refer to this on the physical form (e.g.,, "even though patient X's hematocrit is out of range, they are in good physical health and fine to go to Pole"). Between waiting for a doctor's appointment, getting your tests scheduled, sending in the results to UTMB, waiting for them to respond, possibly having UTMB request additional tests, etc., don't be surprised if the entire process takes 3 months, so really try to schedule appointments as soon as possible.

Regarding Dental work, again it's best to schedule an appointment well in advance. Typically this is a more straightforward visit, but if there is any dental work that you need to do (e.g., a cavity getting filled, etc.), you will have to do it before the dentist signs off on your form. You will also need a panoramic X-ray (typically every 10-years), and "bitewing" X-rays (every year). Some dentist's do not have a panoramic X-ray machine, so you might want to call and ask before your appointment, just to make sure.

If you have to pay out of pocket for any of your procedures or exams (e.g. X-rays or ultrasounds), SPT can typically cover the cost that remains outside of what your insurance will cover.

For travel forms for SPT, our USAP event number is A-379, the PI is Carlstrom, and our ASC implementer is Paul Sullivan. The forms might ask for deployment dates, if in doubt just put something generic like arrival November 1 and departure February 1, or something close to your perceived dates. Your actual dates are negotiated between ASC, USAP, and the project, and you, depending on flight availability, and larger logistical restrictions in the program, so they might not be finalized until Fall. In addition, some of you might be getting the forms as an "alternate", so might not officially have dates yet. Regardless, they will want your travel forms at least 8-weeks before potential departure, perhaps before your dates are "official". Don't worry, the people who book your flights will know your dates when it comes time to book your flight, and they will use what's in the ASC/USAP system, regardless of what you put on your travel form (i.e., which is the reason why "generic" dates are likely fine for this form).

For travel dates (in normal times), the rule of thumb is that your commercial flight will leave the US 5-days before your scheduled Pole arrival (with 2-nights in CHC and 1-night in MCM), and USAP travel will put you down for the appropriate inbound dates regardless of what you enter in your travel form. If you pick the first flight out on your return, your return date will be 2 days after leaving the South Pole. If you intend to spend time in NZ after, you might as well put that date in your travel forms. However, you will have a chance to rebook your flight return after you arrive in Antarctica; it's common to change your return flight plans after arriving at Pole, so don't overthink what travel dates you put in your travel forms for the inbound or outbound.

Before you leave, check the SPT schedule. Find out who is leaving at the same time as you! Drop them a note, and look for them in the airports. It's always more fun to have a group, particularly if it is your first deployment.

2. What to Bring on your trip?

The Participant Guide has some useful advice, but in addition its also useful to ask other people who have previously deployed. Some generally useful advice on what to bring:

- Pole and McMurdo use US power, i.e., you dont need any adapters for your US electronics. However, In NZ, you will need an adapter.
- No wifi at SPT: Make sure you have an ethernet adapter / dongle for your computer.
- No bluetooth at SPT: Make sure you aren't relying on bluetooth peripherals (mouse, keyboard, headphones, etc). There are a few spare USB mice/keyboards available at the telescope.
- Label your Apple chargers and dongles, things get mixed up really quickly at Pole.
- **Spares**: I also bring spares of everything computer related; AC adapters, ethernet adapters, even an old laptop, headphones, hard-drives, ... it sucks when things break down there.
- Pack a Towel: Most important thing! You need a towel at Pole and McMurdo. I just bring a "pack" / camping towel to save space, some prefer having a regular towel, to make it feel more like a home.
- Money: At Pole/McMurdo, everything you need to survive (food, water, etc.) is provided free to you, so technically you don't need any money. However, if you want alcohol, gifts (e.g., tshirts, sweatshirts), or buy toiletries in the station store, you will need cash (Note: McMurdo accepts credit cards, South Pole only accepts cash). I would guess \$100 is often enough, unless you plan to get a lot of gifts for relatives (e.g., t-shirts are \$15/20 and sweatshirts are \$30/50), or buy lots of alcohol. If you are wintering, you would probably want at least \$300. Also, I always get kiwi dollars in NZ at a ATM in the airport. You'll need about 60 kiwis for shuttle rides alone (back and forth between hotel and USAP / CDC), so I would probably get 100 kiwi dollars for miscellaneous expenses.
 - Fronting money: For the trip down, you will have to pay for your hotels, food, and shuttles in CHC. This would typically cost somewhere between \$120-160 / day, so with a typically 2-4 night stay in CHC, you might have to "front" about \$300-600 on your credit card before getting reimbursed on your return home. If you have concerns about "fronting" these costs, talk to your local admin about options (e.g., advancing money, using university credit card), or you could also consider filling your reimbursement for the trip down when you are in McMurdo or Pole.

- Cold weather gear / Clothing; USAP supplies you with any outerwear you might need. You need to bring your own non-cotton cold weather socks and non-cotton baselayer (thermal shirt, thermal leggings), as well as your own regular "inside clothes" (e.g., jeans, t-shirts, etc.). Most days, indoors, I just wear typical casual fall / winter wear, e.g., jeans, carhartt pants, t-shirt, long-sleeve thermal / sweat shirt, hiking shoes, etc. Some people get cold on station or at the telescope, and indoors often wear fleece / long thermals / fleece-lined Carhartts, but some people are fine in t-shirts. For the walk out to the telescope, I would just throw on the Carhartt snow pants, the USAP parka, and my normal hiking shoes. Some people find the parka to be way too warm for walking out to the telescope during the summer months, and wear their own puffy jacket and/or hoodie and a windbreaker.
- Socks: Wool socks strongly recommended -- even when it's 'warm' it's still -10F. Also recommend bringing
 more of these types of socks that you would normally wear (e.g., like 3-weeks worth of socks). I like to
 change my socks midday if I've walked out to the telescope. If your socks get sweaty, your feet get cold
 very fast. Darn Tough socks are great, last forever and come in a variety of sizes
- Sanitary Items and Toiletries: They do usually sell basic toiletries and women's sanitary products at the
 store in both McMurdo and Pole, but most people prefer to bring their own for their time on the ice since
 there aren't many options or brands. There are also usually free pads stocked in the bathrooms at McMurdo
 and Pole.
- Cold weather gear part 2: That said, they really give you way more ECW clothing than you need, so (if you are there just for the summer) don't be afraid to return some of it when you do the clothing issue in NZ.
 Typically, I just take the required stuff (Carhartt snow pants, parka, winter gloves, ski-goggles, neck gator, bunny boots), and maybe 1-2 things that I can wear when greasing the telescope (e.g., the fleece).
 Typically, anything that is not outer-wear, I just wear my own stuff. Though, for your first time down, if you aren't sure if you need it, then you should probably just take it all.
- Rain Gear: NZ can be rainy in the summer, especially if you plan to hike in Fjordland on the way after. Also i've been stuck in CHC on some really rainy days, so its nice to have while you're traveling through.
- Flip flops plus swimsuit: Useful for the shower (flip flops), sauna at Pole, or swimming in the NZ ocean
- Shoes: The big winter boots the CDC provides may be too bulky, so you can bring your own pair of hiking boots. High-ankle insulated hiking shoes work quite well, along with a pair of running shoes that you can wear indoors. If you're staying for winter, you might also appreciate a decent pair of sturdy closed-toe slippers (no open toes in the galley).
- A nice outfit or two. Holidays are typically celebrated with a fancy dinner and people often dress up a bit. However, if you don't bring anything you can often get away with finding something unusual in skua (the free clothing shack), and there is very much a "come as you are" attitude to events, so don't stress out about it either.
- **Gym at Pole**: They have a decent work out room at Pole, with all the basic gear you expect from a small gym (e.g., standing bikes, treadmill, ellipticals, weights, lifting benches). There is also a climbing gym in summer camp. The climbing gym has climbing shoes in a variety of sizes, so no need to bring your own. There are a decent number of people that go running / jogging outside in the summer, most nice trail running shoes are probably ideal for that.
- Thermos and Coffee or Tea: I strongly prefer to make my own coffee on station and at the telescope, via a chemex or french press, so bring down beans if you care about these things. Tea selection on station is good, but many people bring down their favorites or additional options to add to the available variety.
- Storage: You can store boxes or suitcases at the CDC in CHC, e.g., if you were like Kyle and wanted to bring ~50 lbs of climbing gear that you only want to use in NZ. I would just tag it, and throw it in the storage room at the CDC the day of your departure to Antarctica. You can also do it the day of your clothing issue, which might be easier to just get it out of the way.
 - Allen Foster Testimonial: I was surprised how well this worked -- I checked in a backpack full of camping gear before my winter, and when I went back 10 months later to drop off my issued gear, they had it waiting for me in the changing room! ... unfortunately I didn't get to use it:(

3. South Pole Travel

Describe what to expect when you travel to the South Pole, e.g., how long in NZ, how long in McM, what the flights are like, etc.

Flights: USAP Travel will probably contact you about ~2-3 weeks before your departure with a proposed ticketed itinerary, which you'll have ~24 hours to approve. Sometimes they do annoying things to the scheduling, (e.g., a 12-hr layover in Sydney, a double-redeye flight, etc.) and we should be proactive to make sure we dont get those difficult travel schedules. There are direct flights to Auckland from SFO and LAX, so as long as you get one of those, you are probably ok. If you are leaving with other people on the project, you should communicate with one another and try to be on the same flight down to NZ. Once your ticket is booked, use the confirmation number on the Air New Zealand website to pick out a seat for the long haul. Not getting stuck in the middle makes a big difference if you are able to avoid it. SeatGuru.com tells you all about the plane to help you choose.

If you are not a US citizen, you will need a Visa for New Zealand. USAP will arrange a Visa for you, and recommends that you send in your travel documents 8-weeks before departure to assure this goes smoothly.

Have a printout of your USAP letter handy in your bag. When you check in for your New Zealand flight, the airline may request to see it, and it helps clear up any trouble or confusion very quickly.

New Zealand customs & immigration: Have a printout of your USAP letter handy when going through customs. Make sure to ask for the one-year visa stamp. New Zealand biosecurity is strict. If you are bringing outdoor gear, clean it before you pack it up. Wash your boots off in particular (no visible dirt). Pack these items in a place where you can get them out easily because you will be asked to show them. For food, packaged snacks are fine, but be sure to state you have them. Also, keep in mind that there is very easy access to grocery stores in Christchurch, so you can stock up on other things after arrival.

You will be met on arrival by a USAP person when you get to the baggage area in Christchurch. Look for the red vest. Once you are done and heading out to the shuttle, there are several ATMs if you wish to get cash (which can be handy for the shuttles and other small purchases).

If you have a lot of scientific hand carry with you and you arrive during business hours, this is a good chance to leave it at the CDC. Find someone who knows the way if you don't (it's through the parking lot and across the street). Once you are done there, ask the person in the office to help get you a super shuttle to your hotel.

Hotels: USAP Travel also books your hotel in NZ for you. You are often only told a ~few-to-several days before you leave where you are staying, and they will re-book your hotel if there are any delays in your Antarctic travel. Ask the other SPT folks you are traveling with which hotel they requested when you fill out your travel paperwork so you have the option to all be in the same spot. You will have to pay for your hotel and meals while in Christchurch. If you anticipate having a problem with this, talk to your advisor or a member of the leadership team.

In Christchurch: You'll be given a schedule as part of your arrival paperwork. The next morning after arrival is clothing issue. Also computer checks (so bring your laptop). If I have more than one checked bag with me, I often use this as an opportunity to leave one at the CDC until departure (filled with my warmer clothes etc). That way there is less to lug around.

During clothing issue, try your stuff on. Take your time to get what you want, do not feel rushed if the others in your group are done. My first time down I tried on different sizes of just about everything to make sure it was right. If you

are the only SPT-er of your gender at the clothing issue and you are unsure if something fits right, ask someone else in the room. There will almost certainly be someone who can help, and Antarctic folks are generally very friendly.

Note for women: the Carhartt overalls that are favored are in a 'unisex' cut; they often do not fit women well. Try on as many as you need to get as close as you can. Take some safety pins with you, in case you need to shorten or pin the straps for the top (you can sew them as well if you have a travel kit, or once you get to the ice).

USAP personnel will offer you Diamox before you leave in Christchurch. Altitude sickness is a common problem with potentially serious consequences. Diamox can help. Consider taking it, and if you have questions, ask the nurse distributing it.

The rest of the day is yours, have fun!

Sometimes, you get delayed in Christchurch. A few days is fairly normal, in the worst cases it has been a couple weeks. Try to stay patient and positive, and keep communicating with folks in the North and on the Ice.

Flight to McMurdo: The flight to McMurdo is about 5 hours by C-17 and 8 hours by LC-130. They will provide you with a 'flight lunch' that has a couple of sandwiches and snacks in it. Often folks will make a grocery run to the nearby *Countdown* grocery store for some supplemental items, and for breakfast. There is not typically access to wall outlets on the planes, so plan your battery life/flight activities accordingly.

Arrival at McMurdo and South Pole

Once the plane lands at McMurdo, you'll be shuttled into town (nearly a 1-hr drive, so plan accordingly) and an orientation session. If this is your first time, take one of the McMurdo maps they offer. The buildings are mostly referred to by number, and this makes it a lot easier to find.

Always check there is a pillow and bag of sheets for you in your assigned room. If not, seek out the housing office immediately so you can get them before they close for the day.

When your luggage becomes available: Walk up the hill. If your flight to Pole is the next day, you'll end up rechecking things immediately. Take the time to grab your towel and hiking boots out (as well as any toiletries/medicines and couple clothes changes) to create a larger/second 'hand carry' bag. If you get stuck in McMurdo, this bag will be all you have for several days. If you don't have to check your luggage immediately, grab your 'McMurdo bag' but leave the rest where they are. You don't have to haul things back and forth if you don't want to.

Once in McMurdo, check the 'scroll' (tvs in rooms and hallways) for your flight. Know your report time, it's your responsibility to be ready to go and in the right place on time. You will likely want to pack a snack from the galley, where there are 'to-go' fridges, paper bags, and plastic wrap. No food is otherwise provided, for what could be a long day. You'll get transported back out to the airfield well in advance (2-3 hrs) of your flight. If you are at William's field, they might drop you off in the galley or just keep you on the transport. Keep a book or something else to entertain yourself handy, because this can sometimes turn into a long wait. The flight to pole is ~3 hours once you finally take off (on an LC-130 99% of the time). There will be a great show as you fly over the mountains at some point, watch for people milling near the windows in the back.

When you arrive at Pole, put your gear on. It gets cold fast when they open that door. You'll be getting off the plane while they keep the propellers moving. There will be a member of the air guard with a guide-line to keep you from stumbling into the deadly propellers, but take a moment to figure out where it is and which direction to move in before you start walking. The brightness of the polar white compared to the dark plane inside can dazzle and disorient.

Follow the directions to walk off the runway, and find the current SPT welcoming crew! They will help you get the rest of the way into the station. Once inside, dump your bags and layers in the hall before heading in for the station orientation. Before orientation begins, bathrooms and drinking fountains are a long ways down the hallway, if needed. After that, SPT folks should be there to help you find your room or the galley (second floor). Welcome to South Pole Station!

Please take the guidance to go easy on the first day seriously. Your body has jumped to ~10,000 ft of altitude in the span of a few hours, and needs time to adapt. Until you know how you acclimatize, consider limiting sessions in the gym and alcohol intake for the first week, and make sure you drink atypically large amounts of water. If the team plan is to go out to the telescope that day, see if there is a snowmobile ride possible. If not, take your time on the walk out, everyone goes at different paces, and that is ok. If you feel unwell (racing heart rate, inability to breath, dizziness, or anything else) please tell the SPT lead. It is extremely important that you communicate you are unwell, so that you aren't tasked with activities that lead to further over-exertion, and signs of altitude sickness can be watched for (by both your SPT colleagues and/or the station medical personnel).

5. Work Environment at South Pole

Describe the work environment at the South Pole, advice related to what to expect when you are there, how to keep busy / look for projects; communication with your advisor, etc.

During the Austral summer, the work can vary significantly season-to-season (or even during the season) depending on the activities going on. For example, when deploying a new camera, the work can be intense with long work days 7-days / week, as people try to get different elements of the experiment working before the end of the summer; or rushing to finish work ahead of their/your redeployment date. However, sometimes the work can be much more relaxed, in particular, if we are primarily maintaining survey operations and undertaking regular maintenance. Sometimes, you could find yourself waiting for other work to be completed before you can begin the main work that you were sent to do (i.e., because of earlier flight delays, complications in earlier work, etc.).

Regardless of the situation, ahead of deploying, it's important to have a discussion with your advisor (or supervisor) about the main activities that season, and in particular which of those you would be working on. Sometimes this will be fairly obvious (e.g., if you are deploying a new piece of equipment that you've been working on), but sometimes it will not be obvious (e.g., if you are a first timer, going down to help do regular maintenance and operations). In particular in the latter situation, it's important to go down with ideas for work that you might do to keep yourself busy, outside of regular maintenance and operations. For example, maybe you would like to familiarize yourself better with spt3g_software and understand the data quality pipeline; maybe you've wanted to do an analysis study (e.g., on detector cross-talk, detector linearity, beam-variation across the focal plane, short-duration transients ,etc.). In any case, it's important before you head down to have some ideas about the work you will do, and also the work you might do during otherwise slow periods, when you get to Antarctica.

At the South Pole, it's important to coordinate with the rest of the team on site. Even if work seems slow, make sure you are aware of the daily and weekly activities, and if there is any particular place where you might help. Typically if there is a larger team, there might be daily team meetings to set the agenda for the day. However, sometimes with smaller groups or several shifts, it might be more informal or differently structured, talk to your on-site supervisor or more experienced team members if you are unsure.

At the South Pole in particular, safety is paramount. Any sort of serious injury is even more serious in the most-remote place on Earth. In addition, you will be encountering many new, potentially dangerous, pieces of equipment and conditions (e.g., military airplanes, unstable sea-ice, small air-craft that might not follow regular rules, a 500,000-lbs telescope, high-voltage power, extreme cold, high-altitude at Pole, etc.) Use caution, and if in doubt, ask people about proper procedures or safety precautions. If you are injured or feel unwell, seek medical attention;

both McMurdo and South Pole have a doctor on 24-hr call, and it's better to seek precautionary advice early, then ignore a problem that could become serious (e.g., altitude sickness).

6. Life Environment at South Pole

Describe what it's like to live at the South Pole, social environment, recreation, holidays, etc.

The South Pole community is made up not only of SPT members and scientists from other experiments but also a wide variety of non-scientific personnel. It is extremely important for grantees (us) to be good community members and be friendly with the contractors and NSF staff, e.g., participate in station life; talk to non-SPT people in the galley at meals; learn people's names and say hi to them in the halls; do your house mouse at the assigned time, if at all possible. There is something of a stereotype of aloof scientists who care only about their work and view themselves as more important than everyone else. Don't be that person. Also, this means pitching in to help with community chores, like volunteering in the dish pit or helping out when food or mail is brought into the station.

Most-people at the station work 6-days / week (Monday-Saturday) from 8am-5pm, with set meal and recreation times based around that schedule. Scientists can sometimes keep skewed work hours from this, but often still need to work within the constraints of the overall station schedule. In particular for meals, it's important to not regularly show up (or clean-up your plates) late, such that it keeps the galley staff late. There is typically a recreational schedule posted near the stairwell by the galley, which are typically events / activities organized by motivated people on station. In addition, there are several TV lounges which can be reserved for planned movie or show viewings. All activities on station are inclusive to all, so if you see something that sounds interesting, feel free to go. Or if you want to plan something, talk to the rec coordinator on station (usually the Assistant Station Manager) to make sure there are no conflicts. Typical activities can include (sometimes unique takes) on: board games, volleyball (or other sports), movie nights, stretching / yoga, arts & crafts, karaoke, open-mic night, eclectic parties, etc. For each weekend around Thanksgiving, Christmas, and New Years, those will typically have special "2-day" weekends, which include more elaborate meals or parties.

Hot meals are served 3x a day in the galley. Snacks and leftovers are often available 24 hours. As noted in the deployment guide, the station will offer a vegetarian option. Typically the galley staff are pretty good about labeling common allergens (D/G, others) but it is not foolproof. If you have something specific you are watching out for, often it can help to have a friendly conversation with the staff (just not right during a meal when they are the busiest) to see if they will help you with extra labels. In practice, the vegetarian option is the only thing they are required to do, so if you are concerned, you might consider bringing some packaged snacks/food with you as a backup or supplement.

A brief note on wellness and staying healthy during your time in Antarctica. The combination of altitude, lack of humidity, lack of day/night cycles, noise and stress can significantly reduce your ability to get high quality sleep. Many individuals report sleeping poorly during their deployment. It can help if you plan ahead and bring a sleep aid such as ear plugs/eye mask, melatonin, or a humidifier. The station (& SPT) has a limited number of humidifiers available, ask a colleague how to get one. Or send your own down! Also, pay attention to your limits. Everyone needs a different amount of sleep, and you may see colleagues working and socializing at all hours. Put your FOMO aside and ensure you are getting the sleep you need to sustain yourself through deployment.

As a second consideration, the close living and working quarters in Antarctica can be incubators for colds, flu, and other things you really just don't want to catch. If you are sick, tell someone, and consider whether you can work from your room. If not, think about how you can protect your colleagues (mask up, wash hands, keep some distance). Please do not just assume you can quietly disappear into your room for a few days, we will come find you if we don't know what is going on. Also, wash your hands. All the time. We all use the same serving spoon at meals. If there isn't soap in your bathroom, ask one of the janitor crew how you might get a refill.

Icecube has put together some general station-life recommendations for their deploying personnel, covered in: <u>Jim's South Pole Good Neighbor Guide</u>

7. Dealing with Bad Behavior or Harassment in Antarctica

Discuss topics that came up in the grad forum and possible options that people could be made aware of, e.g., peer support / pressure from the whisper network; support from peers or other advocates; HR on station; SPT omduspeople; Faculty advisor, etc.

In any environment, there is the potential for various forms of bad behavior and harassment and Antarctica is no exception. First, know that SPT expects you as our deploying members to uphold the same values of integrity, respect, and civility, and inclusivity that we expect of you in your normal institutional settings. The SPT Collaboration Code of Conduct can be found here: SPT Code of Conduct and applies to your entire time while deployed to Antarctica (both working and personal hours). In particular, we "do not tolerate verbal, non-verbal, or physical harassment of any kind" or "bullying in any form". This extends not only to your SPT colleagues, but also the other scientists and workers you will encounter through your time on the ice. The Antarctic community is more diverse in certain ways than you would encounter in an 'academic bubble', with people on station coming from a wide range of expertise & trade, geographic location, education, political views, etc. The friendships and community you can create with people outside of SPT can be incredible if these 'SPT values' are upheld. An inclusive, respectful culture and trust in the USAP community also provides a strong foundation that prevents bad behavior.

Similarly, know that **you have the right to a safe environment in Antarctica**, free from bad behavior and harassment. This extends to both working and personal hours. Unfortunately, despite the general polar code of conduct that all members of the USAP community agree to (see Polar Code of Conduct, page 65), bad behavior still occurs (both from scientists and contractors) and can have a range of severity and impacts. The recent NSF report (Sexual Assault/Harassment Prevention and Response (SAHPR) FINAL REPORT) focuses in particular on topics on sexual harassment and assault, and highlights their far-ranging impacts on victims. Bad behavior can come from and be directed towards anyone, no single group or demographic is protected in either respect. However, as noted in the report, the URM members of the USAP community are the most significantly and frequently targeted. We are bringing this report and the general topic of harassment up here so that you, as a part of the USAP community can be educated, prepared, and as safe as possible during your deployment. These situations are hard for anyone to navigate, and are unfortunately not atypical in Antarctica. If you are feeling uncomfortable, threatened, or unsafe, it's important that you tell someone, and have a network of people that can support you. Finally, bad behavior is everyone's problem, even if you are not the direct target. If your colleagues are experiencing bad behavior and harassment, beyond simply being wrong, they will not be as effective as a team member in their work. Refer to the section below on how to have a positive impact in these situations.

Where to find help

If you find yourself the victim of bad behavior or harassment, please know that you have several options to reach out for support and advice.

1. On-ice SPT colleagues, other colleagues and friends.

In many cases, help can be private conversations with your SPT co-workers who are in Antarctica with you, or other friends or Antarctic allies (i.e., other non-scientists on station), who might be able to offer advice from previous experiences, or simply offer their support. In some cases, it can be difficult to find the level of privacy desired for these kinds of conversations due to the close quarters and communal living and working areas at the South Pole. Good options for privacy include borrowing the NSF site officer's office if they aren't at the South

Pole, or reserving the small conference room (easily done using the sign-up sheet in COMMS, just write 'SPT meeting').

On-site friends and colleagues are also an excellent option because they can provide immediate support. Whether it is simply someone to talk to, or actions like helping you confront the individual(s) in question about their behavior, reporting-up if desired, or simply helping you create space between you and someone else, this is one of your best options.

However, we also understand that this may not be an option for you. Many times you are in Antarctica with people you are working in person with for the first time, and don't have the level of trust needed for this situation. Or, we acknowledge that there could be a problem within the SPT team, and therefore you are also not comfortable speaking with on-site individuals. Several additional options for help are below.

SPT ombudsperson, or another remote SPT ally

On SPT, you can also always reach out to the <u>SPT ombudspeople</u>, who can provide confidential advice no matter the situation. In some cases, you might consider reaching out to your advisor at home, or another mentor or ally that you feel comfortable talking to. At the end of this document is also a call list of SPT individuals who are willing to provide support whether they are on-ice or at their home institution. These individuals have also noted whether or not they are a mandatory reporter.

3. NSF Antarctic Helpline

Starting in 2023, NSF has created more resources to support members of the USAP community who experience sexual assault or harassment. Contact info is summarized below, however more details can be found at: https://nsfantarctichelpline.org/

Call the Antarctic Helpline at: 1-833-673-1733. The line is staffed by trained professionals available 24/7, and will not ask for any personally identifying information.

Text the Antarctic Helpline at: 202-932-7569 to receive confidential help and support.

Additional support services are available from the USAP Victim's Advocate at:

Email:USAPadvocate@LDSScorp.com

Phone: 720-568-1083 (it will connect to a private answering machine)

4. USAP / ASC human resources

In other cases, you might feel the need to reach out to one of the USAP human resources (HR) representatives, who are on-site at McMurdo and Antarctica. In particular, they can help to deal with issues with ASC employees, and/or formally document any issues, in case others had similar issues on station with the same person/people (either within or outside of SPT). We also highly encourage you in this case to also make a report to an on-site or remote SPT senior member, if possible and you feel safe doing so. This way they can be aware of and monitor the response from ASC HR. We note that HR processes are important so that complaints are documented, but often dissatisfying and slow to respond (this is true at any institution and ASC is no exception). There is often fear and reticence to report for many good reasons, but the only way 'bad actors' get identified and situations rectified for the long term is if reporting occurs.

5. Human resources or another office at your home institution.

How to be an Ally for someone experiencing harassment

Similarly, it is critical to support your SPT colleagues (or anyone else if you are comfortable doing so) if they encounter harassment or bad behavior. If you see someone who appears uncomfortable, threatened, or unsafe consider intervening by reaching out to them or disrupting an immediate situation. If a situation appears to be dangerous or violent, call the SPT team lead for additional help (and/ or COMMS in case of significant danger). If someone speaks to you about bad behavior or harassment, please take it seriously and provide the support they request. If you feel you are unable to, or unsure about what to do next, contact either the on-ice SPT team lead or the remote SPT ombudspeople for advice. You, as an on-ice ally, can have the most immediate and effective impact in a situation where someone is dealing with harassment, bullying, or other bad behavior.

Finally, we note that the information suggestions in this guide are a work in progress. If you have ideas or thoughts on how SPT can improve on its prevention of and response to bad behavior and harassment for members in Antarctica, please reach out to Brad Benson, Amy Bender, or Sasha Rahlin.

SPT call list:

List of SPT people who you can contact (either on-ice or off-ice) if you are experiencing harassment and need help: List names, cell phone number, whether or not they are a mandatory reporter. *Possibly a list of all SPT senior members and whether/where they are mandatory reporters?*

8. References and Resources

- Icecube deployment quide
- <u>Thwaites Glacier field guide</u>:
- USAP Complete Participant Guide
 - o https://www.usap.gov/travelanddeployment/541/
- NSF Antarctic Helpline
 - o https://nsfantarctichelpline.org/