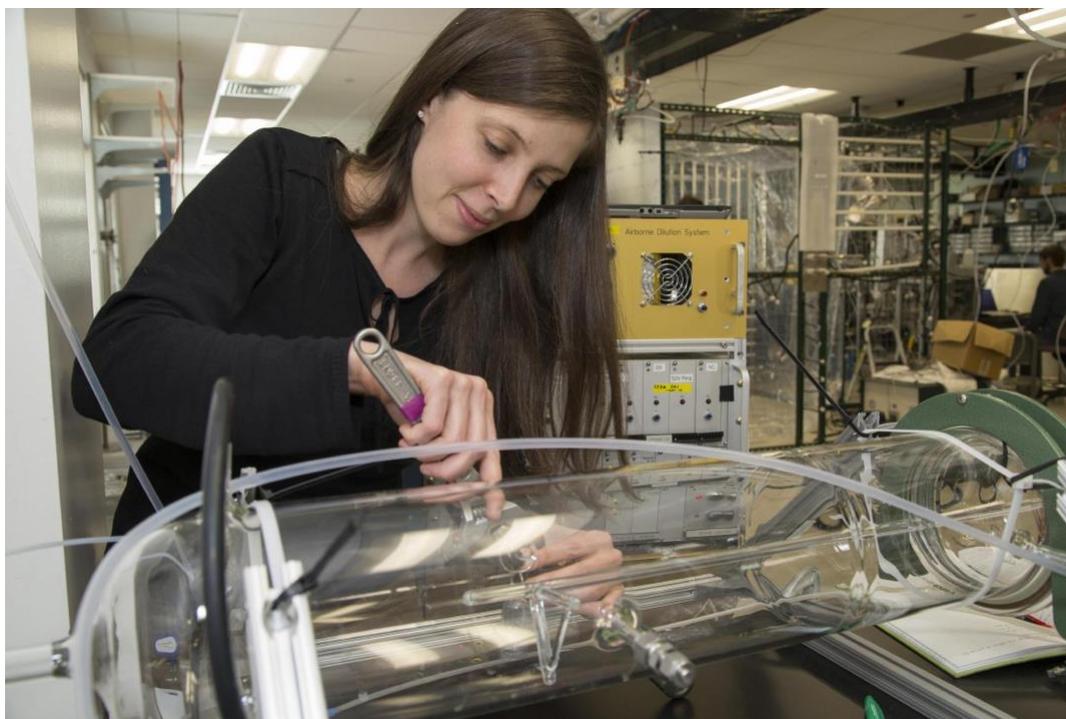


Advanced Study Program

National Center for Atmospheric Research

Postdoctoral Fellows Handbook



Welcome to the Advanced Study Program!

The Advanced Study Program (ASP) postdoctoral fellowship is an excellent opportunity to conduct independent research at the National Center for Atmospheric Research (NCAR). ASP fellows are part of a collaborative cohort, are mentored by leading NCAR scientists and engineers, and benefit from the breadth of science and training happening at NCAR. The ASP Postdoctoral Fellowship Program has been a part of NCAR for over fifty years and has sponsored more than 500 postdoctoral scientists. Many former fellows now occupy prominent positions in the university community or at NCAR. This handbook is intended to provide you with information about the ASP and working at NCAR.

Congratulations for having been selected to the program, we hope that NCAR and ASP will play a vital role in your scientific and engineering career!



Rebecca Hacker
ASP Director

About NCAR and UCAR

NCAR was established by the National Science Foundation in 1960 to provide the university community with world-class facilities and services that were beyond the reach of any individual institution. More than a half-century later, we are still delivering on that mission. NCAR provides the atmospheric and related Earth system science community with state-of-the-art resources, including supercomputers, research aircraft, sophisticated computer models, and extensive data sets. NCAR's in-house staff of preeminent researchers and engineers works with community collaborators to ensure that these resources and facilities are capable of meeting the demands of today's greatest scientific challenges. Our scientists also delve into fundamental research questions, producing a wealth of scientific publications that help lead the way for the broader Earth system science community. NCAR also provides rich education and outreach opportunities, from fellowships for early career scientists to free public lectures to scientific workshops. Since our inception as NSF's first federally funded research and development center, we have been managed by the University Corporation for Atmospheric

Research, a nonprofit consortium of more than 115 colleges and universities. Our headquarters are in Boulder, Colorado, with additional facilities in Wyoming and Hawaii.

NCAR is composed of seven laboratories, some of which have multiple divisions. If you have been selected as an ASP fellow, your appointment at NCAR will be through ASP, but you will be working with scientists in one or more of the scientific divisions or programs. You will be located in the division or program that matches your research interests, not with other ASP postdocs. That division will be referred to as the host division in this document.

For more information about the organization of NCAR, please see <http://www.ncar.ucar.edu/>.

The University Corporation for Atmospheric Research (UCAR) is a nonprofit consortium of more than 115 member colleges and universities focused on research and training in the atmospheric and related Earth system sciences. UCAR manages the National Center for Atmospheric Research with sponsorship by the [National Science Foundation](#). UCAR manages NCAR and as such provides many services such as Human Resources, Payroll, Financial Management, Accounting, etc. Technically, if you are paid, you will be a UCAR employee, even though you are working at NCAR. UCAR also has programs that conduct research and produce scientific data and products. For more information, please see <http://www.ucar.edu/>.

The ASP Postdoctoral Fellowship

The goal of ASP is to support the career development of promising early career scientists in scientific areas that overlap with NCAR's mission. The ASP Postdoctoral Fellowship allows recipients considerable freedom to pursue their research interests. Fellows are encouraged to consider all opportunities available to them before committing to a particular research project. This aspect of the ASP fellowship differs from project-funded postdoctoral positions, in which the postdoctoral scientist is committed to working on a particular project under supervision of a lead scientist. In the ASP, postdoctoral fellows are instead expected to define their own research projects and to assume responsibility for their successful completion.

ASP, however, does have supplementary goals. Research in atmospheric science, computing and engineering will increasingly require interdisciplinary approaches, so we expect postdoctoral fellows to develop a broad appreciation for the full range of research at NCAR. We hope that fellows will develop contacts and collaborations at NCAR that will persist after they leave ASP. The ASP promotes these goals through seminars, lecture series, research reviews, planning meetings, and networking opportunities.

Postdoctoral fellows are expected to participate in the following activities:

Research Reviews

ASP fellows meet bi-weekly to share updates on their research. Each fellow will present twice a year. The purposes of these research reviews are to foster scientific exchange and an appreciation for interdisciplinary work among the postdoctoral fellows, to provide advice and develop new collaborations where appropriate, and to train in scientific communication. The Research Reviews are not intended to be mini-seminars, and should not overemphasize results. Instead, they should focus on motivation and strategy and on the broad significance of the research endeavor. They may describe research currently underway or plans for new projects, as well as challenges and questions.

Professional Development

The ASP hosts monthly workshops and seminars for all the postdocs and graduate students at NCAR. ASP postdocs are expected to attend the career development seminars whenever possible. Topics might include:

- Preparing job application materials for academic positions
- Converting your CV to a resume for private sector jobs
- Honing your elevator speech and interview skills
- Media communications training and communicating science to general audiences

Postdoctoral Individual Development Plans

NCAR/UCAR Postdoctoral Fellows are to complete an Individual Development Plan (IDP) at the beginning of the postdoctoral appointment. Postdocs should take the lead in completing and updating the IDP, and should discuss progress regularly with their mentor. As a postdoc, you own your career. This means not only being responsible for your research, but also actively getting the training you need and seeking guidance from your mentors and hosts.

To learn more, visit <https://ncar.ucar.edu/what-we-offer/education-outreach/postdoctoral-programs/career-development>

Service

ASP Postdocs are expected to participate in some form of service year. This means serving on at least one of the ASP Committees, such as the Research Review Committee, the Fellows Networking Committee, the Professional Development Committee, The Lecture Series Committee or as a representative on the Early Career Scientist Assembly steering committee. In addition, postdocs can engage in Education and Outreach activities such as mentoring or public outreach. The possibilities are fairly broad, but the expectation is that you will be an engaged member of the ASP community. Any NCAR postdoc who wants to be involved in an education and outreach activity is encouraged to contact the E&O Office to learn about the range of opportunities available at NCAR and UCAR. <https://ncar.ucar.edu/what-we-offer/education-outreach>

Lecture Series

The ASP hosts up to two distinguished lecturers a year, nominated and selected by the postdocs. The series generally lasts for 2-3 days and includes a.) seminars given by the speaker, b.) discussion forums with the postdocs and c.) individual one-on-one meetings. A committee composed of your fellow postdocs manages the selection of the speaker and hosts the NCAR visit.

Publications, Proposals and Performance Evaluations

Publications and Submission of Manuscripts

UCAR policies regarding publications are defined in the UCAR Policy and Procedures Manual (<https://operations.ucar.edu/policies/3-5-publication-information-dissemination>). These policies specify some requirements (including acknowledgment of NSF sponsorship, see below) and in addition require that divisions and programs assume responsibility for the scientific and editorial quality of submitted manuscripts. To meet this requirement, ASP requires that manuscripts submitted for publication should be reviewed by at least one colleague, usually from NCAR, whose comments should be addressed before the manuscript is submitted. ASP personnel should also conform to any requirements established by divisions or programs with whom they are working. If there is no appropriate division or program or if there are no specific guidelines to be followed, then the following should be considered the minimum set of requirements:

1. The lead author should solicit a written review from one colleague.
2. If the review indicates that the manuscript should not be submitted in its present form, the author(s) should not submit the manuscript without the approval of the ASP Director.

The ASP office will request the following publication information:

1. The title and authors of any manuscripts submitted,
2. The name(s) of internal reviewers,
3. The full bibliographic information for any published manuscripts and an electronic version of the published manuscript.

ASP pays page charges for publications by ASP postdoctoral fellows, in accordance with the relevant UCAR policy. Provide the journal payment form, reprint order, and title page and abstract to the ASP administrative office to obtain a purchase request for the page charges. For publications written jointly with authors from NCAR or other institutions, we ask that those authors pay a proportionate share of the page charges. Please have this funding in place before submitting paperwork to ASP. ASP supports publication of research results in scientific journals, but also asks that authors consider ways of

minimizing page charges because they can be substantial. You must acknowledge NCAR on any of your NCAR publications. Please put your name and affiliation (NCAR) at the top, and put a * next to NCAR. In the footnote please include *"This material is based upon work supported by the National Center for Atmospheric Research, which is a major facility sponsored by the National Science Foundation under Cooperative Agreement No. 1852977."* That statement can be in smaller print, but it must be there.

NCAR maintains its own open access repository called Open Sky and therefore will not pay for open access fees charged by publishers. For more information on Open Sky, please go to <https://opensky.ucar.edu/>. All published manuscripts must be uploaded to Open Sky. The NCAR Library tracks manuscripts and maintains Open Sky. Any missing documents will be requested typically in the fall at fiscal year end.

Preparing and Submitting Proposals

ASP supports postdoc participation on grant proposals during your tenure as an ASP postdoc. However, there are strict guidelines that must be followed anytime that an ASP postdoc uses his or her NCAR affiliation on a proposal.

In general, NCAR does not support postdocs as *Principal Investigators* on proposals. Ideally, a postdoc will appear on a proposal with another NCAR staff member. There are rare exceptions to this rule, but certain conditions must apply in order for an exception to be granted. There are general exceptions to this policy, such as awards that are only granted to postdocs, i.e. NSF AGS Postdoctoral Research Fellowships.

Because we are sponsored by the National Science Foundation, NCAR must report to the NSF every time an NCAR staff member appears on a proposal, even as an unfunded collaborator, so be sure to contact Paula Fisher and your host program administrator in these scenarios.

The most important point to understand is: if you have been asked to participate in a proposal, or if you wish to submit a proposal, even if no funds are coming to NCAR, please contact Scott Briggs as early in the process as possible to ensure that we follow NCAR procedures.

Performance

Review

Process

Postdoctoral fellows are evaluated once a year for their performance. The ASP will schedule regular meetings between the postdoc and the ASP director to help plan and stay on track of progress. The required meetings are:

- **Welcome and orientation;** in the first week of appointment, to set expectations and review any questions or concerns.
- **Research Planning Meeting;** within three months of arrival; to review any revisions to the research proposal and discuss the individual Development Plan. The host is invited to attend this meeting.
- **One-year renewal meeting;** the postdoc completes the Year One Performance Evaluation documents and presents a working plan for year two. Feedback from hosts is incorporated into the evaluation documentation. Successful Year One review will result in promotion to Postdoctoral Fellow II.
- **Year Two Review;** ASP Postdoctoral Fellowship appointments are limited to two years. As your appointment approaches its termination date, you will be asked to submit your year two evaluation documents and meet with the ASP Director to discuss your transition to a new position.

Postdoctoral fellows are encouraged to meet with the ASP director through additional appointments. You can schedule these additional meetings through Diana O. Verschoor or Scott Briggs

Logistics & Travel Information

Travel to Boulder

ASP will assist in paying travel costs for fellows, their partners, and their families to relocate to Boulder. The fellow will receive a lump sum relocation package that varies depending on whether they are domestic or international, and if they have a spouse and/or children who will also be relocating to Boulder. For instance, a domestic fellow will receive net \$1750 plus \$500 for their spouse, and \$250 for each child. International fellows will receive \$2500, \$750, and \$500 for the same relocation. The funds a fellow receives for relocation are considered taxable income and for that reason, your actual reimbursement will be approximately 32% higher than the amounts quoted above in order to compensate for the taxes that will be paid on your relocation. Taxes will be withheld when you receive this payment.

Finding housing in Boulder

UCAR has a housing office in Human Resources that will help you find appropriate housing, if for a short-term rental or for the length of your stay. Please visit the housing office webpage at <https://housing.ucar.edu/> to find out information on rentals in the Boulder area. The housing office is great at finding suitable housing for postdocs, and has access to many properties that are only available to them.

In addition to the housing office, some postdocs have recommended Housing Helpers: <http://www.housinghelpers.com/>. Another source might be the classified section of the local Boulder Newspaper, The Boulder Daily Camera: <http://www.dailycamera.com/>. Please use caution when answering rental ads on craigslist and these can sometimes be fraudulent.

More helpful websites include:

Apartment List <http://www.apartmentlist.com/>

BCN Housing <http://bcn.boulder.co.us/housing/>
Cort Furniture <http://www.cort.com> (for furniture rentals)

You will be required to provide a security deposit on any type of property that you rent. Work with the landlord or management company to determine your water, gas, electric, trash and recycling service providers.

Transportation

Many people find that they can get around just fine in Boulder without a car. UCAR has its own shuttle system that runs between the main campuses and picks up at a few locations around Boulder. In addition, there are many bicycle paths and buses, and as a UCAR employee, you receive a free bus pass. For more information about the bus system, please see <http://www.rtd-denver.com/>.

UCAR employees may participate in the Boulder B-Cycle bicycle-sharing program, which allows members to borrow bikes around Boulder. <https://operations.ucar.edu/sustainability/boulder-b-cycle>

Working at NCAR/UCAR

NCAR/UCAR Campuses

Mesa Lab (ML)

Located in South Boulder. Houses the ML Office of the Advanced Study Program (ASP), the Climate and Global Dynamics Division (CGD), and the Computational & Information Systems Laboratory (CISL).

Foothills Lab (FL)

Located in Northeast Boulder. Houses Atmospheric Chemistry, Observations and Modeling (ACOM), the Mesoscale & Microscale Meteorology Lab (MMM), the Research Applications Lab (RAL), the Earth Observing Laboratory (EOL), and several UCAR Programs.

Center Green Campus (CG)

This campus is located about 5 minutes away from the Foothills Lab Campus and is connected by a bike path. Houses the High Altitude Observatory (HAO)

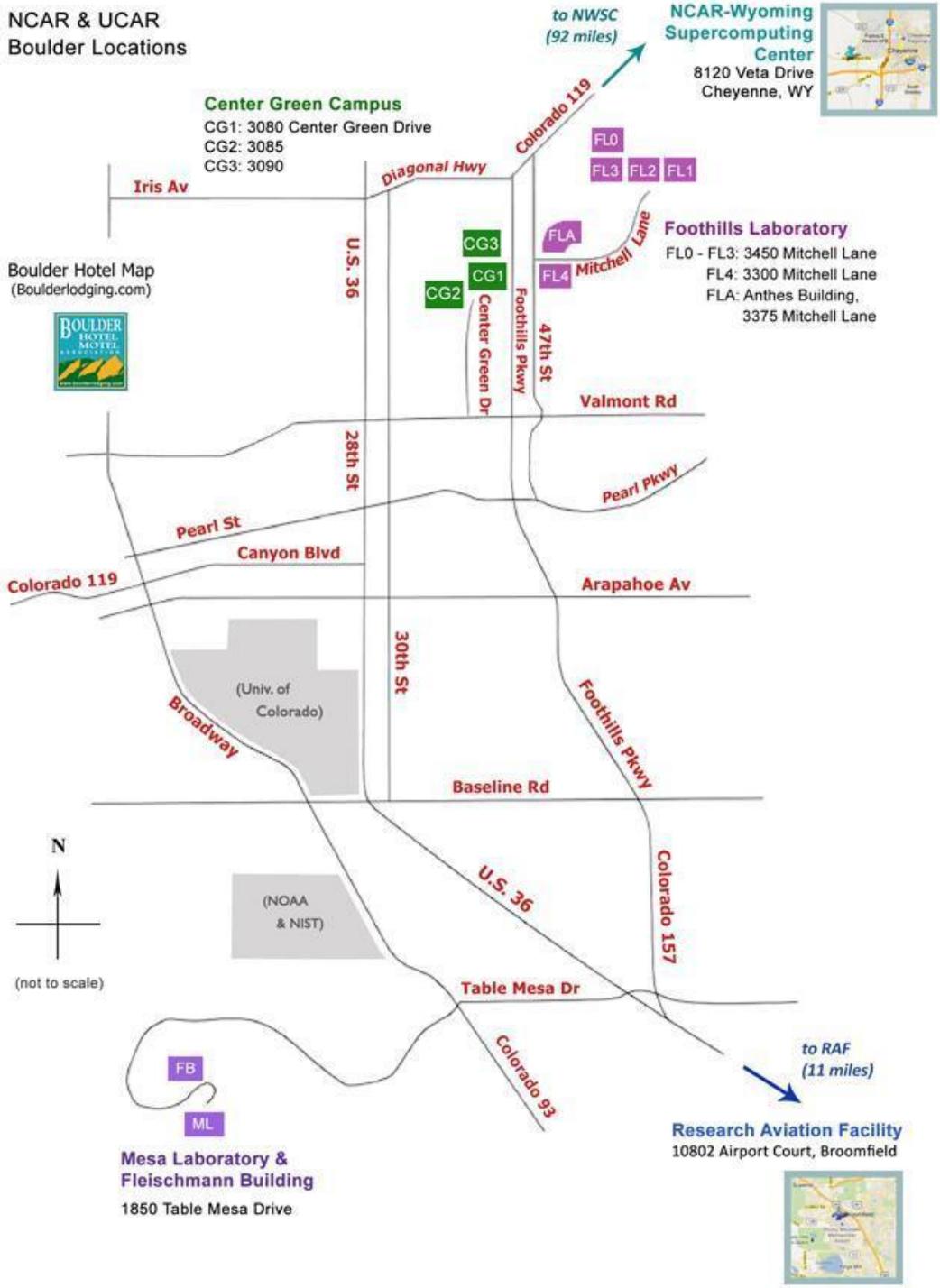
Research Aviation Facility (RAF)

This facility is located at the Jefferson County Airport and is part of EOL. This is the location of NCAR's aircraft fleet.

In addition, NCAR runs the Wyoming Super Computing Center.

<https://nwsc.ucar.edu/visitor-center>

**NCAR & UCAR
Boulder Locations**



The ASP Office

The ASP office is located on the first floor of the B-Tower (South) of the Mesa Lab.

Please contact our team with any questions you might have:

Rebecca Haacker, Director, rhaacker@ucar.edu, 303-497-8623

Paula Fisher, E&O Lead Administrator, paulad@ucar.edu, 303-497-1328

Scott Briggs, ASP Administrator, sbriggs@ucar.edu, 303-497-1607

Diana O. Verschoor, Assistant to Director and Lead Administrator, Meeting support and travel, dianaov@ucar.edu, 303-497-1851

Michelle Stringham, ASP Assistant, Travel, Meeting support, mstringh@ucar.edu, 303-497-8879

Orientation

New Employee Orientation is held monthly on Mondays at FL-A in room 2111. Orientation begins at 8:30 am and ends at 12:30 pm. Orientation features presenters from across the organization. A member of the President's Council, Lab, or Program Director will open each session with a brief overview of UCAR, NCAR, and UCP. Presentations include Diversity and Inclusion, Ombuds, Communications, System Security, Safety, Sustainability, Human Resources, Training, and Benefits. The purpose of Orientation is to provide relevant information and answer questions to assist new employees with their transition into the organization. ASP will hold individual orientations for each fellow upon arrival.

Timecards

Employees are required to complete timecards every two weeks. If you are going to be away, please make sure that you have access to the timecard system, or arrange to have ASP staff fill in your hours for you. You will receive a paycheck every two weeks. Generally, paychecks are deposited directly into your bank account. To see the payroll schedule, along with a list of all the UCAR holidays, please go to <https://operations.ucar.edu/tf-group/payroll-schedules>

Benefits

You will learn a lot more about your benefits through our onboarding process. To learn more about available benefits now, go to <https://operations.ucar.edu/hr/benefits>

Participation in the UCAR retirement plan is mandatory. Every pay period, 5% of your salary will be deducted pre-tax automatically from your paycheck for retirement; UCAR matches that by contributing 10% of your salary per pay period to the plan.

Vacation and Sick Leave

Postdoctoral fellows accrue 20 days of personal time off (PTO) per year (1.666 days/mo). This time is used for both vacation and sick leave. Fellows work 40 hours a week (less any PTO taken). These hours are flexible, as long as there is significant overlap with the hours worked by other fellows and scientists

so that research progress is not hindered. Significant departures from normal work hours must be approved by the ASP director.

Child Care

UCAR sponsors a childcare center, which gives a discount and priority to UCAR employees. For more information, please see <https://www.kindercare.com/our-centers/boulder/co/000674>.

Resources for ASP Fellows

General Computing

You will be provided with the computing equipment you need to perform your research. ASP will purchase a new laptop for you. Logins and day-to-day computer support will come from your host division. Computers and peripherals are considered government property and must be returned to NCAR when the post leaves NCAR/UCAR. Personal laptops must be approved for use before they may be connected to NCAR networks.

Supercomputing Allocations

ASP postdoctoral fellows requiring access to the supercomputers and mass storage systems will need an allocation of runtime. This may come from the ASP allocation, but this resource is modest and shared among all postdocs. Fellows with large computing needs will need to work with their respective laboratories to secure the requisite computing resources. The ASP allocation is for testing and debugging and occasional one-time simulations when other resources are not available. The intent to run large simulations must be communicated between fellows to ensure that there is not an overuse of the ASP allocation. ASP has limited allocation available to postdocs in order to supplement those provided by your host division for NCAR supercomputer use. For more information about NCAR supercomputers and the ASP allocation, please contact Scott Briggs.

Travel

Postdoctoral fellows receive a travel budget of \$3500/year and are trusted to manage their travel funding wisely. It is expected that postdoctoral fellows have valid professional reasons for attending meetings or conferences, such as presenting a talk or serving on a committee. The UCAR travel policies apply to all travel that ASP supports. All work-related travel must be approved before departure, by obtaining a Travel Authorization #, even if costs are covered by another organization. You do not need approval for personal trips (e.g., vacation); however, if you are doing anything during that time that could be considered work-related, such as giving a talk at a school or meeting with colleagues at a university, you should get a travel authorization.

In cases where the travel is supported completely by another agency and involves no NCAR funds, a travel authorization is still required because it activates insurance coverage under NCAR's accident

policy. There are many different rules and regulations that ASP must follow, which means that if you want to be reimbursed for your travel, you must ensure that all of the travel procedures are followed carefully. If you have any questions about procedures, be sure to contact Scott Briggs.

The travel approval and planning process is done by an admin in ASP (or in some cases your host division). To initiate it, please send an email at *a minimum two weeks before* your trip to the appropriate admin indicating the purpose of your trip and any details you have already (dates, location, possible hotels you will stay at etc.). NCAR's travel agency Cain Travel is a convenient way to book airline travels and *required for all international trips*. It is expected that each fellow will have a credit card for travel expenses. ASP staff can in some instances pay for registration fees. Travel advances can be requested to cover the costs of a trip, but such requests must be made at least two weeks in advance. On completion of a trip, a Travel Voucher will be completed to reimburse you for any allowable out-of-pocket expenses. Please work with ASP or your local administrative assistant to ensure the proper completion and submission of the voucher.

There are special procedures regarding use of US airlines for foreign travel (Fly America Act). For international travel, please always consult with ASP administrative staff first!

If funding permits, you will also be given the opportunity to write a proposal to ASP for additional travel funds. The call for proposals for additional travel funds will occur once or twice every fiscal year. In addition, you are eligible for travel and visitor funds in the Early Career Scientists Assembly (ECSA) budget. The ECSA announces calls for travel/visitor applications 2-3 times/year.

Local and UCAR Meetings

ASP will cover the cost of registration fees for internal UCAR meetings such as the WRF Tutorial without the cost impacting the overall balance of the fellow's travel stipend. In addition, ASP will cover the cost of registration fees for one local non-UCAR meeting during the fellow's two-year term. Some meetings are sponsored by outside agencies, but arranged by local meeting organizers at UCAR. These meetings are not considered UCAR meetings. If you are not sure, please contact ASP staff.

Poster Printing

NCAR uses outside print shops for posters. The simplest way to do this is to work with the UCAR-approved printing company FedEx/Kinko's. When you are ready to print a poster, please contact the ASP administrative office for information on how to have this direct-billed to UCAR. Please do not pay for posters yourself and request reimbursement; you will incur taxes, and since UCAR is tax-exempt, using the purchase order will save us money in taxes. Printing of posters for presentation at conferences does not count towards your travel budget.

Note: The NCAR and NSF logos must appear on any presentations & posters given.

Library Services

The NCAR library provides access to many major journals and books. <https://library.ucar.edu/>.

The library has two physical locations at ML and FL. The staff are very helpful and happy to give you an introduction to the library catalogues.

NCAR Cafeteria

Each of the main campuses of NCAR (ML, FL, CG) has a cafeteria that is open for breakfast and lunch daily. Employees receive a 10% discount off published prices and a 15% discount if an employee badge is used to pay. Any charges to your employee badge come out of your paycheck.

Information Specific to International Employees

It is recommended that you go to the UCAR international Visitor & Scholar Services page at <https://operations.ucar.edu/hr/visitors/services-international-visitors-and-scholars/>. Much of the information below is summarized from that page.

Visas

Acquiring a visa to work in the U.S. can sometimes take as long as 3 months, so it is important to begin working on this process as soon as possible. UCAR employs a visa specialist who will help you through this process. Please go to <https://operations.ucar.edu/hr/visitors/visas> to learn more. It is important for you to understand the different types of visas and determine which type is best for you.

Social Security Card

Getting your social security card is probably one of the highest priorities once you get here. All foreign visitors and scholars who will be on UCAR's payroll must have a social security number. A social security card can be applied for at any local Social Security office. The Social Security office in Boulder is located at 4949 Pearl East Circle, Suite 101, Boulder, CO 80301. You must apply in person, but only after you have been in the country for two weeks. A visiting scholar must have a social security number to get on the payroll. However, sometimes your card may not be received before your hire date. In that case, please present the receipt from the Social Security office to the Human Resources office to prevent any delays in receiving a paycheck. Additional information and Social Security office locations can be found at: <http://www.ssa.gov>.

You will need to bring the following to the Social Security office:

- Your DS-2019 form,
- Your offer letter,
- Your I-94 card,
- Social Security Form SS-5, available here: <https://www.ssa.gov/forms/ss-5.pdf>,

- At least two documents that establish your identity and age. One of those documents must be your passport.

Your Social Security number may be requested and used by many agencies, specifically, financial agencies. Be cautious in giving your number out.

Once you receive your social security number, please give that number to Human Resources by phone.

For additional information, please see UCAR's web page on Social Security numbers for foreign visitors at <https://operations.ucar.edu/hr/visitors/important-information-salaried-positions-ucarnicar#ssn>

Driver's License

You are allowed to drive using an international license for 6 months, but after that you need to take a driving test. There is only one place to get driving lessons in Boulder: the Colorado Driving Institute, 2850 Iris Avenue, Boulder. The Boulder Department of Motor Vehicle (DMV) is located at 2850 Iris Avenue, tel: (303) 442-3006. For more information about obtaining a driver's license, please go to <https://www.colorado.gov/dmv>. Several postdocs have noted that car insurance is much cheaper if you have a Colorado Driver's License rather than an international license. The Colorado driver's handbook can be obtained from the NCAR library.

Bank Accounts

Many banks require you to have some credit history in the US before you open an account with them. However, it is easy for non-US visitors to open an account at the Elevations Federal Credit Union. The main branch is located at 30th St. and Iris, or there is a smaller branch located in the Table Mesa shopping center (Table Mesa and Broadway). You will probably need to get your social security number before you will be able to open a bank account. You may cash UCAR checks at any Chase bank branch in Boulder even if you do not have an account. You will be required to present identification.

Tax Treaties

Many countries have a tax treaty with the US. This means that you do not pay tax for two years. (Note that if you are in the US longer than two years, the tax treaty does not apply). However, it is vital that you fill out the appropriate tax forms in April to avoid a large fine. For more information, please go to www.irs.gov and look for IRS publication 519, *U.S. Tax Guide for Aliens*.

Change of Address

If you are here on a visa and you change your address, you must complete an AR-11 form. You may find the form here: <http://www.uscis.gov>

