BP Institute and Department of Earth Sciences
Bullard Laboratories

University of Cambridge

General Information
2019-20

BP Institute and
Department of Earth Sciences, Bullard Laboratories
Information Booklet

GENERAL

There are four main buildings at Bullard Labs:

point of contact

Madingley Rise House	Bullard Administrator Mon-Thurs am only – 37191
BP Institute (BPI):	Catherine Pearson (mornings only) – 65700
Wolfson (Labs)	Dudley Simons
Drum Building:	Dudley Simons

Dudley Simons (01223 3) 37198 office or 52522 from any University extension, is the Departmental Safety Officer for the Bullard site and also oversees site security, building maintenance etc. and is in Room 45 on the ground floor of the Wolfson Building.

The main entrance to Bullard Labs is on Madingley Road, or on foot or bike via Storey's Way/ Churchill College. You can get here on the Universal Bus Service (across the road on JJ Thompson Avenue) which runs between Addenbrooke's Hospital and the Madingley Road Park and Ride site via Silver Street and the West Cambridge Site: buses are every 20 minutes and the fare is £1.00 for University ID card holders (http://www.environment.admin.cam.ac.uk/what-are-we-doing/travel/bus-services-and-support).

Access to all buildings is by proximity reader using your University ID card which must be enabled for our system by the Bullard Administrator or Dudley Simons. If you lose or break your card you can get a replacement from the University Card Office/college or department authorized representative. The card opens Madingley Rise House front door, BPI front door, Wolfson Building inner glass doors and back door (Goods Inward) and the Drum Building front door. You will need a key if you intend to work upstairs in the Wolfson Building or if you need to collect a poster print from the plotter out of hours. Each building has a separate security alarm system: see (**SECURITY** [p.5]).

Coffee is served in the house from 10.30-10.50 am: please be prompt! You may not be served if you arrive late. Across Madingley Road on JJ Thompson Avenue you can get lunch at the Cavendish Labs canteen, snacks/sandwiches are also available at the Hauser Forum and at the small café in the foyer of the William Gates Building. There is another café in the University Sports Centre off Charles Babbage Way. There is also a small canteen in Greenwich House on this site.

Photocopiers, telephones, fax machine and postage are provided for departmental business but personal use is allowed. Please fill in the relevant account books and state whether use is department or private. Please **pay promptly** for private use when billed. Generally, you pay for any use outside your research scope and the department pays the rest. Order goods through the Bullard Administrator and Catherine - but always get permission from the grant holder or your supervisor, or you may be the one who pays!

All phones may be used for local and internal calls. For long distance calls there is a phone in the Wolfson Building lobby and the back corridor in the House (Room 28A); enter all phone numbers and call length in the books provided (both business and private). Calls are monitored monthly.

Use of Franking Machine/Stamps: We have a franking machine for **Departmental use only.** If you need to use it, please ask how it works. All packages need to be weighed for correct postage and the amount entered in the book. The Bullard Administrator also sells stamps.

Fax Machine: This is in the Wolfson reception office. The fax number is 01223-**360779**. You may send personal faxes for which you will be billed. Please sign the transmission report giving your name, fax destination, whether ES or private, and place in the tray by the machine.

Keys: See administrators or Dudley for keys. See Dudley for vehicle keys.

Smoking: By law this is not allowed in any of the buildings. Please do not smoke outside office windows etc. or building entrances.

Music: If you wish to listen to music, **use personal headphones**.

Please keep your rooms **tidy** so that they may be cleaned easily. **Wash all dirty cups, plates and cutlery** no one is employed to clean up after you! Do not leave food or dirty crockery around as this encourages mice, which are an ongoing problem. It is unreasonable for you to leave your washing up for someone else to do. You must remove all your belongings promptly when you leave as your room will be needed by someone else.

Lecture Room & Library – both have diaries for booking meetings, supervisions etc. The lecture room diary is just outside the door and the library inside.

Bicycles are NOT to be brought into buildings

Recycling:

- There are recycling bins in each building with clear instructions on what is recyclable.
- **The bins in each office are only for recyclable items**
- **Put food waste**, and anything else not recyclable in the covered **waste** bin in the kitchens/Tea Room.
- **Full details are in the Safety Handbook.** If you have any queries, please ask!

FOR RESEARCH STUDENTS

It is a University requirement that you have a supervisor and a project before you arrive. You also have a tutor in College for personal welfare, a Head of Department (Prof. Richard Harrison) Professors (Nick Rawlinson, Bob White, Andy Woods, Nicky White) here at Bullard for major scientific and administrative problems, a supervisor for your research and two 'friends' who will take an interest in your work. See one of them before contacting the Board of Graduate Studies (BOGS) or the Degree Committee and read the BOGS Memorandum to Research Students (http://www.admin.cam.ac.uk/offices/gradstud/).

Discuss subjects of lectures and seminars with your supervisor, but in general you should go to all those given by Department members, to all research seminars at Bullard and ones of interest on the Downing Site and to all student teatime talks. You are expected to help in demonstrating some undergraduate courses, both in the lab and in the field, for which you will be paid. Consult your supervisor before going on holiday, and before you go away on business check with whoever will sign your expense claim (generally the grant-holder) and pick up a claim form from the Bullard Administrator. If you are going overseas, you must be insured; ***provided that you register details in advance the University insurance policy will usually cover this*** *unless you are travelling to your home country*. For full details see Research Students Booklet on the Department Website:
http://www.esc.cam.ac.uk/esc/files/Department/research/Research%20Students%20Handbook.pdf

In addition to the Library here (House: up the main stairs and turn left) you are encouraged to use the extensive Department Library (Downing Site), and the Rayleigh Physics Library (Cavendish Lab). Register as a user of the University Library both to use material there and at the Moore Library (which holds the central Science collections) (at Wilberforce Road); you will need your UL card to do this. *(See Page 12 for full **Library** details).*

When you go away for work or on holiday, please leave dates and **contact details** with your supervisor and office mates in case you need to be contacted in an emergency**.**

SECURITY

The site is covered by CCTV and all buildings have intruder alarm systems connected to the University 24-hour Security Control Room (tel. 31818 from any University network phone, emergency tel. **101** or 01223 331818 from your mobile – it's a good idea to have this number stored in your phone!). You will need to know how the alarm systems work both in and out of office hours. Please read and follow the instructions on the safety information card in each office by the light switch.

Do not leave main doors wide open or fasten them back as anyone may walk in: there have been thefts from buildings on site, so always make sure that card-controlled doors are closed behind you as you walk through. Please hand in any department key when you leave.

So that we know who is on site, **if you open any door to visitors, please take them straight to the appropriate person in each building** (Bullard Administrator, Catherine or Dudley).

We rely on everyone here to look out for strangers or suspicious activities. Always report anything untoward at once, however trivial, to Dudley, the Bullard Administrator or Catherine and note the registration of any suspicious vehicle(s).

DO NOT BE HEROIC AND ENDANGER YOUR OWN SAFETY!

- We are only insured for forcible entry, so are not covered if windows or doors are left open. If you open windows or doors **you are responsible for securing them again.**

- Personal computers in the Department are NOT covered by the University's insurance, though it is possible to include expensive computers with movement and transit restrictions.   The University recommends that if you have a household "All Risks" insurance policy you extend this to include a personal computer at work.

- Please be very vigilant about computing facilities. The University has to pay a large insurance excess and there has to be proof of forcible entry if computers are stolen. **Look after your personal belongings** as these are not insured on site. Do not leave valuables around or in locked drawers or cupboards and place laptop computers where they can't be seen through windows.

- The last person to leave a building **must** set the alarm after checking that the alarmed zones are empty. Also check that you have everything you need as Security views rapid setting and unsetting of alarms as suspicious as someone may be acting under duress.

- Please ensure that all office lights are switched off before you leave.

- Draw curtains/blinds at night. Make contact with anyone else in the building and **liaise with them before you leave**, but if you are working alone and would like to use the 'buddy' system you should contact Security and keep in touch with them as instructed. If you sense danger ring Security (31818 and emergency 101) and keep out of the way.

ALARMS

Set the alarm following the instructions alongside each keypad. If you set off an alarm accidentally or have a problem, ring University Security Control on 31818 immediately.

The security alarm systems are set and unset by entering a **code number**. You must enter an alarmed space through the designated route: front door of House, BP Institute and Drum Building. The Wolfson Building differs slightly and is dealt with separately below. The first person to enter a building must **unset** the main alarm, by keying in the code and pressing "**ENTER**".

Setting the alarms is the responsibility of the last person leaving who must also ensure that no-one else is still working in the building. All buildings, except the Drum Building, have a **buzzer** next to the keypad; before leaving, please use it to warn anyone around that you are leaving and about to set the alarm. When entering or leaving any building you **must** use the 'final' door: front door for House, BP Institute and Drum Building.

You may go between the House and the BP Institute at ground/first floor levels between 9 am and 5 pm. **Outside these hours only use the main entrances or you will trigger the alarm.**

The **Drum Building** has the same alarm system and code. The first person going in **breaks an external beam** which triggers the alarm externally – use your swipe card to enter and unset the alarm in the usual way.

Wolfson Building

1)   There are two keypads, each with a different code:

- One is on the left hand wall as you go in the back (Goods Inward) door which controls the ground floor corridors and entrance foyer

- The other is on the first floor, inside the double doors and to the left, which protects the upper floor. You will need a key to unlock the door upstairs out of hours, or after a fire alarm test etc.

- Enter the building through the back door until 9 am and after 5.00pm.

2)   If you are working out of hours upstairs, and there is no one working downstairs, the downstairs alarm should be set. This can be done from the upstairs keypad using the back door code!

3)   **As you leave upstairs**, look at the LED above the keypad. If it is flashing, the downstairs area is alarmed. You can unset that alarm from the upstairs keypad using the downstairs code. You should then set the upstairs alarm as usual; and then you must reset the alarm at the back door as you leave the building, using the downstairs code.

4)   **When you enter** through the Goods Inward door out of hours, unset the alarm if it beeps. If you are going upstairs, unset the alarm at the top of the stairs; then re-set the downstairs alarm from the upstairs keypad, using the downstairs code.

5)   **When you leave**, check that the downstairs area is empty (check no one is in the toilet!) and that BPI lab users are not working late. If there is anyone else still working, tell them you are leaving and that they are now on their own – **do not leave without doing this.** If after 6pm any of the BPI lab doors are open but there is no one present you should still set the building alarm.

6)   If you set the alarms off accidently, call Security on 31818 and let them know it is a false alarm

7)   All BPI labs have separate alarm systems.

8)   Ask any staff member for the codes, and see them if you have any queries. For safety reasons, please remember: if you are working late find out if anyone else is and keep in touch with them.

9)   If you have any problems setting or unsetting alarms out of hours call Security

Two of the BPI labs located in the corridor next to the Wolfson reception office use compressed asphixiant gas and are equipped with an alarm which will sound if the atmosphere in the lab becomes depleted of oxygen. Should you hear this alarm DO NOT ENTER THE CORRIDOR. If you should see a casualty on the floor – DO NOT ENTER THE CORRIDOR. You should raise the alarm by breaking the fire alarm glass

by the front doors. Call Security and tell them what has happened and that an ambulance and the fire brigade are required. Seek help from Dudley Simons or Andrew Pluck or wait for the fire brigade to arrive.

PLAGIARISM

For full details see http://www.admin.cam.ac.uk/univ/plagiarism/students/statement.html*)*

Plagiarism is using unacknowledged the work of others and passing it off as your own, original work. It is always wrong, is a breach of academic integrity in all circumstances and is regarded by the University as a serious offence. It may take the form of copying (passing off as your own another person's language or ideas) or collusion, where collaboration is concealed to gain unfair advantage. The penalties for plagiarism are severe and may lead to failure to obtain your degree. The University has the right to check any submitted work for plagiarism, and can do so with increasingly sophisticated software.

There should be no doubt as to which parts of your work are your own original work, and which are the rightful intellectual property of someone else.

SAFETY RESPONSIBILITIES AND FIRST AIDERS

Head of Department	**Prof Richard Harrison**
Department Safety Officer	**Lucy Matthews**
Bullard Safety Officer/Security	**Mr Dudley Simons**
Bullard Fire Manager	**Mr Dudley Simons**
Bullard Deputy Fire Manager:	**Mr Andrew Pluck**

Heads of section

BP Institute (Madingley Rise)	**Prof A Woods**
BPI Colloids Interface Lab	**Prof Stuart Clarke**
BPI Fluids Lab	**Dr Charlotte Gladstone**
BPI Polymer Colloids Lab	**Prof Alex Routh**

In case of injury **call a first aider:**

Sanne Cottaar – Mad Rise House	07557 278944	(01223 7) 48938 Office
Sarah Finney – Brighton Building	07976 124243	(01223 3) 61064
Sandra Freshney – Brighton Building	07854 831207	(01223 7) 65717 Office
Tara Love – BPI	07791 166 840	(01223 7) 65708
David Madden – BPI	07791 166 840	(01223 7) 65721
Paddy Mortimer – BPI	07711 658786	(01223 7) 65711
David Broussalt – BPI	07403 739357	(01223 7) 65719

The following Astronomy Dept. First Aiders are available during office hours.

Mark Hurn	37537
Debbie Peterson	66643

If you are already, or would like to train as, a first aider please contact Dudley Simons.

If an ambulance is needed try to contact a first aider, or dial 999 from any internal phone, ask for an ambulance to go to Bullard Labs, Madingley Rise, off Madingley Road, opposite JJ Thompson Avenue. If you are asked to give the post code – CB3 0EZ, be sure to tell the operator that the **post code does not work in most Sat Nav systems** and that the ambulance etc. **MUST** use the Madingley Road entrance to the site and **NOT** try to enter via Huntingdon Road, there is no vehicular access to the Bullard from Huntingdon Road. If possible, arrange for someone to go to the bottom of the drive to direct the emergency vehicle to the correct building.

Emergency contact numbers can be found on a laminated card by the phone in each office/lab and on all notice boards.

See the Department Safety Handbook for all SAFETY-related issues relating to both Bullard and Earth Sciences down town

COMPUTING – Dave Lyness & Ian Frame

Contacts: **Dr Dave Lyness: 37190;**   dgl11@cam.ac.uk
Dr Ian Frame: **37065;**   if201@cam.ac.uk
Mr Patrick Welche *(BPI Computer Officer)*: **65704;** prlw1@cam.ac.uk
General Contact email: cobullard@esc.cam.ac.uk

Visitors: If Eduroam is setup on your laptop you should be able to connect to the internet over our wireless system. Others who need to access the internet over our wireless system will need to contact a computer officer in order to get a 'ticket number'.

All members of the Laboratories, particularly graduate students, inevitably spend much time computing. Personnel at Bullard use the Bullard Unix Network and log into a GNU/linux workstation. You should have received your university identifier (CSRID), Raven and Hermes passwords from the University Computing Service. Your CSRID is used when you use any centrally provided services – mine is dgl11 and is also the basis of your email address e.g., dgl11@cam.ac.uk. Raven is an authorisation service that lets the user access a variety of services, importantly on-line journal access from any web browser. Many individuals buy laptop computers and I can advise on attaching the machine to the network at Bullard. You may wish to make your laptop dual boot between the supplied Microsoft Windows Operating System and GNU/linux. You must ensure your machine and actions are secure, please read You must ensure your machine and actions are secure, please read https://help.uis.cam.ac.uk/service/user-accounts-security/security/protection and install antivirus software (MacOs or Windows) available as a download from a link on above web page. The Bullard Unix Network is used for mathematical modelling and data processing, and is paid for locally. The linux workstations are particularly well suited to graphics and program development. There is also a local "cluster" of over 500 processing cores for users to perform numerically intensive calculations.

Unix is the operating system we use on our local machines. It is recommended that you attend a Computing Service introductory course which runs each term (http://www.cam.ac.uk/cs/courses). Unix is a common operating system in scientific and technical environments and its use, particularly the open source distribution GNU/linux, is widespread, and tutorials may be found on the web.

The common desktop machine is a PC running GNU/linux but we also have a limited number of Microsoft Windows machines. All departments and colleges are networked so it is possible to log on to any of the Bullard machines from most places in Cambridge and indeed the internet world. You can communicate with almost any machine in the world from your workstation, but it is 'firewalled' off, restricting external access. You can attach your laptop wirelessly here at Bullard using a system called EDUROAM which requires you to enter your raven password to obtain a token that you enter once in your laptop, see **http:/www.cam.ac.uk/cs/wireless/eduroam/localusers.html**. In fact, Eduroam is international and you can now use your laptop for web browsing in many institutions throughout the world.

You MUST use a secure shell to access Bullard from a remote site; David Lyness can provide more details. Part III users have priority on the PCs in the print room, upstairs in the Wolfson, mainly for project preparation. All PCs are networked and may share files with the unix servers. Each building has a multi-function colour printer / photocopier / scanner. We have a high quality wide-format printer with a 42" roll of paper to print posters and other large images. We have two good quality data projectors one of which is portable (see David Lyness). Most computers at Bullard use linux, but Windows desktops and Macs can be and are accommodated.

Printers

Most printing failures are caused by incorrect handling of the printers or errors with your document. Loading paper into the cassettes is easy but must be done carefully. The paper should be fanned out, then straightened again and inserted carefully without any folds. Please do not change the type (A3 / A4) or orientation. Remember to format your document correctly (probably size A4) before printing.

Colour printing costs are ten times greater than black and white, so please do not print in colour unless you must.

It is unlikely you will print transparencies but if you do it is critical you use the correct media. ONLY use the precisely specified transparencies for the printer you use. I cannot over-emphasise this, at the very worst

the printer may be COMPLETELY destroyed by the wrong transparency and you will be held financially liable. Often users buy transparencies that say they are for Colour Laser Printers - they MUST list EXACTLY the same model that you intend to use it on; if in doubt do NOT use it. The excuse of late night urgency is not acceptable.

<u>Computer viruses on Microsoft Windows machines</u>

In the past the computers at the lab have become infected by computer viruses and a large amount of time and effort goes into eradicating the virus. As a preventative see the following guidelines:

1.   The Bullard Laboratories is fairly well firewalled and the most common method of virus infection occurs when an infected laptop is physically plugged into the network. ALWAYS keep your anti-virus software up to date.

2.   NEVER NEVER open unsolicited emails or unsolicited attachments. That includes attachments from friends and colleagues: their address book could be infected.

If you suspect the machine you are working on has a virus you should turn the computer off, place a large sign on it instructing people not to use it and report it immediately.

Keep up-to-date backups of your files securely and do not just spread data around different systems.

UNIVERSITY INSURANCE AND PRIVATE WORK

See Bullard Safety Information for full details

A full statement on University's Insurance is given at www.admin.cam.ac.uk/offices/insurance/.

If you are travelling overseas in connection with your work you must be insured; ***provided that you register details in advance the University insurance policy will usually cover*** this *unless you are travelling to your home country*. If you are a research student, please read the full details in the Research Students Booklet on the Department Website:
http://www.esc.cam.ac.uk/esc/files/Department/research/Research%20Students%20Handbook.pdf

DRIVING AT WORK AND USE OF DEPARTMENT CAR

See Department Safety Information for full details

Bullard vehicles are available for use by all members of the Labs only for *bona fide* University business and **are not insured** for personal journeys. If you wish to borrow a vehicle you **must**:

- Provide the Bullard Safety Officer with a copy of your current driving licence and a copy of the online DVLA driving record, which can be kept on file. Your licence will be checked annually.

- Notify the Bullard Safety Officer of any endorsements (e.g. speeding convictions or other motoring offences) occurring in the meantime, failure to do this means you may not be covered by the University insurance policy.

- Read and sign the appropriate documents related to car use (see Dudley)

- Report any damage to the car - no matter how slight - to Dudley as soon as you return.

- Fill in the vehicles mileage on the supplied form BEFORE YOU LEAVE Bullard and again on your return indicating who is paying for the vehicles use and the relevant grant number.

- You can purchase petrol and diesel for departmental vehicles using the supplied fuel card. Be sure to obtain a receipt which MUST be handed in when you return the vehicle keys.

Car bookings are made using the diary in Dudley's office – room 45, Wolfson. Please make sure that you return any vehicle in good time for the person who has made the next booking to use it. See Dudley or the Bullard Administrator if you have any queries.

Guidelines on vehicle use, insurance etc. will be given to you before collecting the keys and you must comply with them as a condition of use.

Librarian: **Sarah Humbert**   email: libraryhelp@esc.cam.ac.uk

<u>**Opening Hours**</u>
Main Department Library: **9.45 – 6.15 Monday to Friday**

Bullard Library: available **24/7** to members of the department.

The Map Room in the Main Library can only be accessed by arrangement with the Librarian.
Visits to the library at the Bullard by library staff is currently irregular, but please, please do get in touch if you need anything.

Borrowing Regulations: All stock (books, journals and maps) may be borrowed electronically*, apart from a small amount of reference material and the current issues of journals. We will lend to all members of other Departments and Faculties within the University (including Undergraduates) providing that:

- they produce a University card/University Library card and register to use the electronic borrowing system in use here

- they abide by the borrowing regulations of this Library and pay any fines they may incur. For all Library regulations see the Library Services web page

- the relevant item is not in current use by members of this Department, who have priority

- the relevant item is suitable for borrowing i.e. not too fragile to be loaned or too old (pre 1850)

Both Libraries have fixed return dates for all material in the first week of each vacation and at the start of Michaelmas term. For members of other departments, including undergraduates, the borrowing period for the main collections is 21 days, but sometimes longer periods are allowed over vacations.
*If you are unable to borrow using the self issue machine please fill in one of the manual loan slips.

<u>**Library Material**</u>

1.   Reserve collections are items for short loan on the Undergraduates' reading lists, kept in the Downtown Library Office with a loan period of 3 hours during the working day. Some duplicate texts are available for 24 hour loans. Items may be borrowed overnight after 2.00 pm until 10.30 am, and on Friday after 2.00 pm for return by Monday 10.30 am. Items can be renewed, at the discretion of library staff. During the Long Vacation, items in the Reserve collection are released to be loaned normally. **Fines for this material are £1 per hour or part thereof to a maximum of £5.**

2.   Main collections of the Library are on the open shelves (books, maps, bound journals and unbound journals), with pre-1980 material stored elsewhere in the House. At the Bullard you may help yourselves to attic material as long as you return items correctly. Journals are shelved in alphabetical order. **Fines for this material are £1 per day, to a maximum of £10.**

<u>**Bullard Library**</u>

The Bullard Library contains much of the geophysical material and 99% of the stock is always available to you. Please borrow and return items correctly. If you normally have access to the Bullard facilities this Library is available to you 24/7**.**

NOTE: Visitors MUST report to the Library staff via email before using the Library

<u>**Inter-Library Loans**</u>

For material NOT available in Cambridge we will request material from the British Library; there will be a charge for this service. Please email libraryhelp@esc.cam.ac.uk or contact us personally:

Catalogue: All catalogued material can be accessed via iDiscover, the University's online catalogue. See staff and the library website for help.

Registration: You will need to register with Library staff for borrowing.

Photocopying: Department post-grads and staff have free copying although for copyright purposes they MUST note down what they copy in the folder provided.

Library Help: Email libraryhelp@esc.cam.ac.uk for requests for downtown attic material, inter-library loans and in case of any problems.

Library Web Page available via: http://www.esc.cam.ac.uk/library
The web page will give you access to the main bibliographic reference searches, online journals and online catalogues that you will need.