
Medical Student Elective Report

Occupational Medicine: National Air Traffic Services (NATS)

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NATS: Control Centre at Swanwick. Source: NATS Press Office.

MAIN ACKNOWLEDGEMENT

I would like to warmly thank the Faculty of Occupational Medicine for kindly awarding me the Mobbs' Corporate Fellowship in support of this elective.

I'd like to extend my thanks to the staff within the Faculty (Emma Cox-Smith and Thuy Vuong) who were my first contacts in organising the elective and helping to arrange everything for me.

Additionally, I would like to thank the staff at the Occupational Health department of the National Air Traffic Service (NATS) for their efforts in organising the elective, and welcoming me into the department.

In particular, I'd like to thank Dr. Rae Chang, who acted as my supervisor, and the other doctors in the department (Drs. John Roberts, Maged Girgis and Simon Clift).

INTRODUCTION

Medical electives are an opportunity to learn about the practice of Medicine in a recognised clinical speciality. For me, an elective in Occupational Medicine would provide exposure to a speciality I hadn't encountered through Medical School, indeed I hadn't even heard of it!

There are some things you expect to do in your elective, like developing your communication and clinical skills, or sitting in a clinic with a doctor. In my elective, not only was there exposure to medicine in this manner - I encountered opportunities I never imagined, like being shown round the operations room of the UK's two major Air Traffic Control centres, and the tower at Heathrow Airport.

I have always had a passionate interest in aviation - with the kind assistance of the Faculty of Occupational Medicine, I was put in contact with the Occupational Health Department at the National Air Traffic Service (NATS), who almost exclusively manage UK airspace.



NATS Centre in Swanwick. Source: NATS Press Office.

LOCATION

My elective was based just outside Southampton, in the Air Traffic Control Centre in Swanwick. The occupational health department is based here. I also travelled to the centre at Prestwick (near Glasgow), and to Heathrow Airport.



NATS Centre at Prestwick. Source: NATS Press Office.

OCCUPATIONAL MEDICINE DEPARTMENT

The department has three consultant occupational physicians, a registrar occupational physician and two members of administrative staff. All staff are based at Swanwick, although as they cover all NATS centres in the UK, it is uncommon to have four doctors at Swanwick at once.

The department are principally concerned with NATS employees. All air traffic controllers must undergo a medical each year. Additionally, all NATS staff are able to see a doctor - they may refer themselves, or be referred by their manager.

The doctors visit all NATS centres in the UK - including airport towers throughout the country in the likes of Aberdeen, Luton and Cardiff.

Finally, the department offers medicals to pilots - this includes initial medicals and renewals to both commercial and private pilots.

AIMS

1. To obtain a grasp of the basis of an occupational history and what occupational physicians do when they see patients in an aviation setting.
2. To appreciate the focus and relevance of this work to the structure of the company.
3. To find out how occupational physicians practise and come to decisions (in terms of resources they use).
4. To understand the job of an occupational physician with a view to a career in that area.
5. To participate in an audit project relating to referrals to Occupational Physicians and the communication to the relevant managers

SCHEDULE

Week 1: Learning about medicals of Air Traffic Controllers and Pilots

Week 2: Shadowing the Chief Medical Officer at Prestwick and Heathrow

Week 3: Working on Audit Project

Week 4: Learning about occupational health consultations

A REVIEW OF WHAT I DID

Week 1

My first week was spent learning about medicals that Air Traffic Controllers and Pilots are required to undertake by law.

Doctors require special training to become an Aeromedical Examiner (AME) - an initial medical involves checking height and weight, urinalysis, ECG, hearing test, blood test for haemoglobin and cholesterol, spirometry, vision checks, a brief examination of body systems and specific eye tests.

Personally, this was extremely useful: it was good revision of core clinical skills and allowed practise on a ostensibly healthy group of patients. I also enjoyed the different dynamic of a routine medical, where patients are glad to be in contact with medical staff, rather than being unwell. I felt that the engagement between the occupational health department and air traffic controllers on a routine, scheduled basis was highly beneficial to the company as a whole.



Air Traffic Controllers in the Swanwick Control Room.

Source: NATS Press Office.

Week 2

This week had an occupational theme - I shadowed the Chief Medical Officer on his trips to the Prestwick Centre (which controls all planes over Scotland, Northern England and some of the Atlantic Ocean), Heathrow Tower and Swanwick Centre (which controls most of England, Wales and the densely packed London airspace).

I was shown around Prestwick's control room, Heathrow's control room and the entire Swanwick centre. The requirement for long distance vision is vastly different depending on where you work - this is essential at Heathrow for the ground controller, yet far less important for controllers at Swanwick or Prestwick.



Air Traffic Controllers in the tower at Heathrow Airport.

Source: NATS Press Office.

Week 3

This week was spent undertaking my audit - I randomly selected 40 referrals from managers of NATS employees and self referrals and looked at these and the letter to the person who made the referral.

This allowed me to take a longitudinal glance at patients' through the department, and also helped me understand one of the key differences between occupational medicine and other fields.

I was particularly interested to read referrals from managers as this is unique to occupational medicine; and also learn about the content of communication from occupational physicians back to line managers.

Week 4

The focus of this week was on Occupational Health. I learned about initial and follow up consultations, and the focus on fitness to work. In particular, I was interested in the consent of patients to have clinical information sent to line managers, and their agreement in any correspondence.



Inside NATS Air Traffic Control centre, Swanwick. Source: NATS Press Office.

REFLECTIVE COMMENTARY

The elective was hugely enjoyable, and highly valuable to me as part of my study of medicine.

Why did I choose this elective

Since childhood, I've had a passionate interest in aviation and was delighted to combine this with my studies of Medicine in my elective.

I am hugely grateful to the Faculty of Occupational Medicine for assisting me in finding this opportunity - I was previously unaware of the role of occupational physicians within a company like NATS.

The role of an occupational physician

I found it fascinating to understand the role of Occupational Physicians within the structure of the company. Primarily, they act as a liaison and have a dual responsibility both to their patients, but also their patients managers. NATS has a workforce of approximately 4550 employees - including 1900 air traffic controllers (who additionally require routine medicals).

In turn, I was grateful to the patients and doctors who kindly allowed me to sit in on their consultations - I learned about different consultations involving managers seeking advice on how best to manage a return to work, in consulting with staff who are continuing to work despite illness who seek modifications to make their jobs easier, and in consulting with employees who have been absent from work to explore opportunities to best support them - through treatments paid for by the company, or modifications to their workplace.

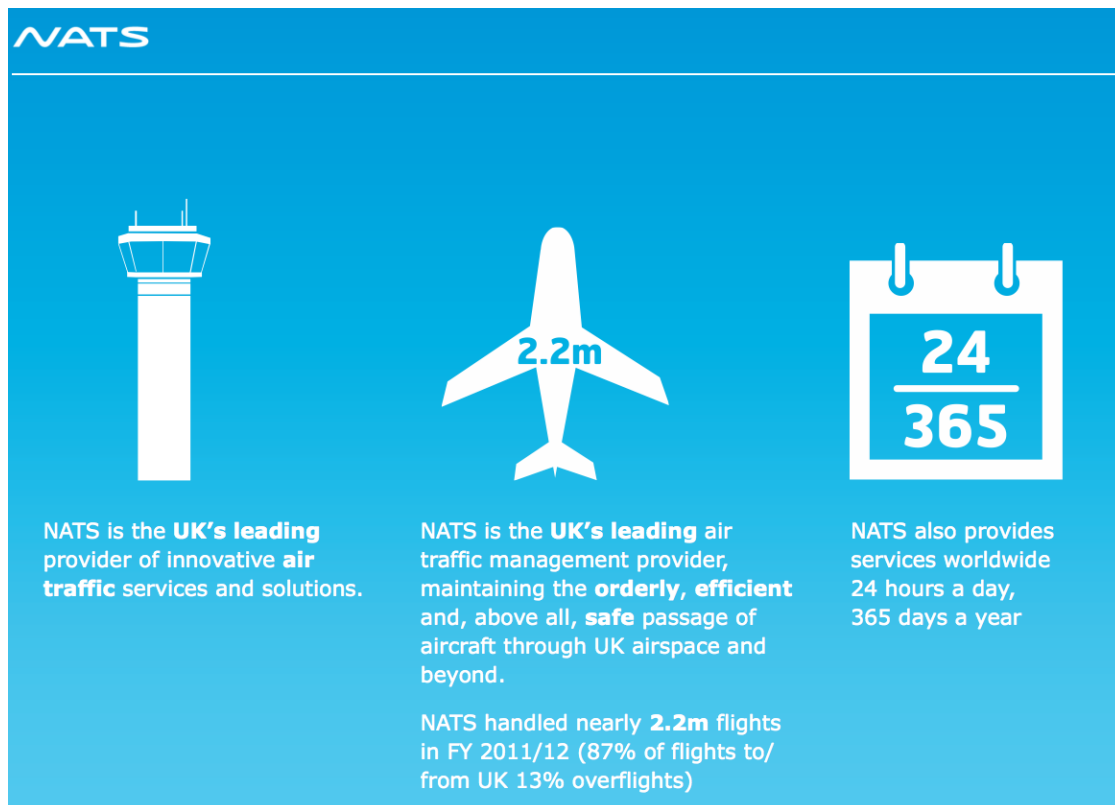
The routine medicals of Air Traffic Controllers was also a valuable learning opportunity - I got lots of practise in my systems examinations and enjoyed the opportunity to practise on primarily healthy patients. I was also interested in the significance of the results, and the focus on 'occupational fitness' especially with respect to hearing.

My project

My audit project provided me an opportunity to follow people through the system, which otherwise would not have been possible within a 4 week elective. The communication between managers/human resources and doctors is unique to occupational medicine and requires consideration of ethical issues: consent and confidentiality.

Occupational medicine and the company

I was surprised that the occupational physicians travel around the UK visiting all the NATS centres - clearly offering medicals to Air Traffic Controllers on site is both convenient to individuals and cost-effective for the company. It also helps to develop a rapport between air traffic controllers when they are healthy which enhances their relationship if they become unwell.



The infographic features the NATS logo at the top left. It is divided into three columns, each with an icon and text. The first column shows a white air traffic control tower icon. The second column shows a white airplane icon with '2.2m' written on its fuselage. The third column shows a white calendar icon with '24' and '365' on it. The background is a solid blue color.

NATS

NATS is the UK's leading provider of innovative air traffic services and solutions.

NATS is the UK's leading air traffic management provider, maintaining the **orderly, efficient and, above all, **safe** passage of aircraft through UK airspace and beyond.**

NATS also provides services worldwide 24 hours a day, 365 days a year

NATS handled nearly **2.2m flights in FY 2011/12 (87% of flights to/from UK 13% overflights)**

What do NATS do? Source: NATS Press Office.

Visiting other centres

Clearly, a main highlight of the elective was my visit to the Air Traffic Control Tower at Heathrow Airport. I was fascinated to see the controllers at work and soak up their enthusiasm for their jobs.



Heathrow Air Traffic Control Tower. Source: NATS Press Office.

CONCLUSIONS

I had a hugely enjoyable and educationally valuable elective. I was exposed to a field of medicine I had not previously encountered, and enjoyed the unique opportunity to visit air traffic control centres throughout the UK.

The exposure to occupational health as a specialty, together with the opportunity to practise clinical skills as part of routine medicals, would lead me to strongly recommend an elective in occupational medicine to another medical student.

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Drs. John Roberts (Chief Medical Officer), Maged Girgis, Simon Clift

Mrs. Morag Sloan and Mrs. Sue Smith

The staff at the Faculty of Occupational Medicine:

Emma Cox-Smith and Thuy Vuong

Mobbs' Corporate Health Fellowship

And, finally, all the staff at NATS throughout the UK who were so kind in helping me make the most of my elective.