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Presentation title:

### **Restricted Skies:**

# Visual and virtual perspectives on military airspace borders.

I want to start by talking about what's been described as a 'crisis of representation' in the cultural sector, by which I mean that visual culture is struggling to adequately represent and interpret increasingly complex global systems. These systems might include planetary communications networks, the movement of commodities and manufacturing materials around the world, the production and distribution of fuel along international networks, the migration and redistribution of populations across international borders - and the list goes on. All of which are examples of the accelerated, totalising dynamics of capitalism in its current formation, and of the nebulous, chaotic, destructive forces of warfare.

There is another element to this schema which is the phenomenon of international air mobility which we are all familiar with but which we also recognise as a being dependent on a highly complex system of interconnecting airspaces, volumetric structures and corridors that delineate and segregate the troposphere. As individuals we struggle to comprehend the sheer complexity of flight plans through numerous invisible international borders as we move seamlessly over country after country to our destination. We might also struggle to measure these systems against other modes of transport and other, more perilous, forms of migration. And yet amongst these systems, we are even less aware of the spaces inhabited by the military, who move around the world using a combination of civil traffic routes and designated military danger zones, and it is these zones that I would like to discuss today and which have become central to my current visual art practice.

In the United Kingdom, the Ministry of Defence (MoD) owns almost one and half percent of the landmass of the country, attributed to several major training ranges, over 60 air force aerodromes,

three major naval ports and over 3000 smaller training areas, buildings and individual sites. The vast majority of these sites are restricted and generally closed to unauthorised civilians.

And, of course, the control of land, sea and air by the military is a historical phenomenon in the UK going back to the subtraction of land from common use during the 18<sup>th</sup> and 19<sup>th</sup> centuries, a process known as the Acts of Enclosure, and extending, as far as I'm concerned, into the 20<sup>th</sup> century as the military begin to compulsorily purchase great swathes of land for training and defence during the war periods. During the second world war, for instance, around 20% of the land mass of the UK was appropriated for training and defence. This, of course, diminished greatly after the war, and as I've said, the figure is now roughly 1.5%. From the 1950s, we've seen large parts of the sky segregated for military purposes – again, a new kind of spatial enclosure. All of this is entirely to do with the constant preparation for war by the British military and how, according to Beatrice Hansen, 'warfare is now woven into the filigree of peace.' Most recently, I have been concentrating on the social implications of military airspaces and how we might articulate a new understanding of these invisible aerial architectures.

On a cultural and conceptual level, airspaces are paradoxical – they define and delimit the activities within a particular part of the sky with very specific, geographically defined parameters and altitudes, and yet they do not exist in any real, material sense at all, apart from as data or code or lines on a map. We choose to believe in them simply because they keep us alive. By contrast, militarised airspaces exclude civil air traffic for particular periods of time because of the hazardous activity that go on within them. Again, they are non-existent spaces, that we choose to believe in because we might die if we enter them. Conceptually they are not *virtual* spaces in the sense of existing in a dimension of pure data. They are very much embedded in this tangible world, as *real virtualities*, if I can borrow a phrase from Lucy Budd and Peter Adey.<sup>2</sup>

But for something that technically doesn't exist, there is a tremendous amount of it:

<sup>&</sup>lt;sup>1</sup> Beatrice Hanssen, *Critique of Violence: Between Poststructuralism and Critical Theory* (London: Routledge, 2000), 102.

<sup>&</sup>lt;sup>2</sup> Luce Budd & Peter Adey, The Software-Simulated Airworld: Anticipatory code and affective aeromobilities. *Environment and Planning A*, 41(6), 2009, pp.1366–1385

### Slide 1



To give you a sense of how much airspace is devoted to military activities, here is map from the Civil Aviation Authority that shows nearly all military airspaces across the British Isles. Hopefully, you also get a sense of how these spatial formations can act like a mechanism, opening and closing at specific times of the day. These are spaces for fast jet high energy manoeuvres, rocket and artillery testing, tank trials, and air-to-air refuelling. These are also the spaces of national defence, with Russian longrange bombers regularly buzzing the edges to the north and south-west. The proliferation and complexity of spaces you can see here is caused by a combination of a relatively small landmass combines with very high international military aspirations. What this map doesn't do is give you a sense of how these military structures are embedded within real landscapes and real communities, from the ground up.

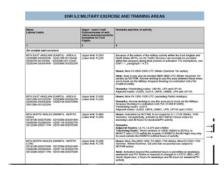
During 2014, I received an award from the Levehulme Trust to support me as artist-in-residence at Newcastle University working with a group of critical military geographers and airspace specialists. The outcome of this residency was the production of a body of work and an exhibition at the University gallery relating specifically to militarised airspaces. The rest of this presentation will outline some of that work.

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<sup>&</sup>lt;sup>3</sup> See the following National Air Traffic Service map (accessed 19-09-2016): http://www.ead.eurocontrol.int/eadbasic/pamslight-07A1EF0D45768D29B5D0F4F85016775C/7FE5QZZF3FXUS/EN/Charts/ENR/AIRAC/EG\_ENR\_6\_5\_1\_1\_en\_2016-09-15.pdf

So on a theoretical level, my own pursuit of the hidden and virtual forms of aerial militarisation began as a desire to uncover the mechanisms by which civilian life becomes incrementally and almost imperceptibly enmeshed with the military. However, being a visual artist, I also followed a compulsion to engage with these complex spatial structures on a formal and aesthetic level — as vast, invisible edifices (some the size of whole counties) with endless potential as 'found objects' for cultural and artistic appropriation. However, apart from the airspace charts — which are actually fairly ambiguous when it comes to coordinates, all I had to go on was data like this culled from the Ministry of Defence and the Civil Aviation Authority.

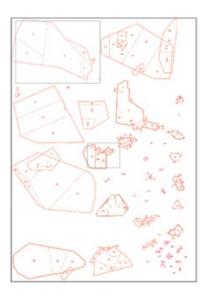
Slide 2



So, this database gives precise coordinates for pilots, and tells you very briefly the kind of hazardous activities that go on within them. The first thing I did using this basic information was to start building scaled graphic models of these spaces to try and visualise them and then used them to begin assembling an typology of spaces, coordinates and basic data – a kind of database of danger zones around the UK. This is an on-going project that hopefully will hopefully be in the public domain in the near future. Watch this space.

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<sup>&</sup>lt;sup>4</sup> See the following National Air Traffic Service data sheet (accessed 19-09-2016): http://www.ead.eurocontrol.int/eadbasic/pamslight-07A1EF0D45768D29B5D0F4F85016775C/7FE5QZZF3FXUS/EN/AIP/ENR/EG\_ENR\_5\_1\_en\_2016-09-15.pdf



The second thing I did during the residency was embark on a tour of British landscapes and areas that I knew to be enclosed by segregated airspaces.

Slide 3



I entered these zones and took photographs and later combined them with three dimensional, isometric renderings of the airspace. To be clear, I was not trying to show how the airspace might look if suddenly revealed, because that would be impossible – instead, I was trying to formulate a way of re-presenting them in relation to more orthodox notions of the pastoral or bucolic, while also trying to emphasise the uniqueness of the place itself. For instance, with this piece, which is titled *Brecklands No.1: This will be a 36hr FIBUA combat operation* is in a military training region called the Stanford Battle ground in East Anglia, and it shows what looks like a perfectly circular crater, known locally as the Devils Punch Bowl. It is actually a chalk 'swallow hole' but its associated with numerous local legends including the almost obligatory extra-terrestrial object falling from the sky. The correlation between invisible military airspaces (the white structure here...) and supernatural or unknown aerial events may at first seem tenuous, but opening a visual channel between them will, hopefully, challenge certain assumptions about the kind of invisible things we choose to believe in.

#### Slide 4



Similarly, with this piece called *The Wash: High angle dives and loft/toss bombing attacks*, describes a landscape of marshes and mudflats where weather is intense and the range of wildlife – birdlife particularly - is incredible. And yet the whole area is a bombing range used for target practice by British and NATO jets, but there is also this invisible volumetric structure hanging over the entire region, defining military occupancy and legitimising a tactical and strategic vision of the landscape.

So, I suppose I'm trying to combine an aesthetic understanding of the landscape and a strategic, operational one. Two versions of the same landscape existing in 'simultaneous plurality', to paraphrase the late great geographer Doreen Massey.<sup>5</sup> The shapes of military airspaces themselves began to acquire, for me, a kind of symbolic value – as ghosts almost, that exist in parallel to our subjective experiences of landscapes.

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This is a piece titled *Lakenheath and Mildenhall: Request MATZ penetration*. MATZ is an acronym which stands for Military Aerodrome Traffic Zone. So each one of these circles has a radius of 5 miles with a ceiling of around 1500 feet, and if you live in one of many village communities within them you

<sup>&</sup>lt;sup>5</sup> Doreen Massey, For Space, (London: Sage, 2005)

would see a fairly steady stream of American c-130 transporters and Boeing Stratotankers heading to and from warzones in the middle east and elsewhere. These are spaces that connect to the geographies and landscapes of conflict, connecting seemingly idyllic places such as the Norfolk Breckland to warzones and operations around the world. So, apart from simply fusing landscape imagery and aerial cartographic information, I am also trying to reveal a hidden dimension of militarisation in the places we take for granted. These seemingly benign places and landscapes are infused with the preparation for warfare elsewhere.

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This one is called *Foulness Island: Expect low-frequency airblasts*. Foulness is an island that lies at the mouth of the Thames just before you hit the English Channel and it is a weapons testing and decommissioning site. The whole site is owned by the Ministry of defence but is managed by a private sector company called QinetiQ. Across the island there are numerous facilities including drop test gantries, artillery target ranges, open cage incineration sites, multiple environmental testing units and numerous other facilities. It also has this hugely complex airspace structure extending up to 55,000 feet, covering most of the island and parts of the surrounding area. Whenever you fly into London from Europe, this is the structure you fly round and avoid on your way into the capital.

There are more of these which I'm going to skip but I just wanted to suggest that landscape is always the unwitting recruit in any process of militarisation, and is often perceived by the armed services in objectivised and strategic terms - an alternative, parallel reality of impending violence and simulated or real destruction. Gathering these images and combining them with military spatial information was a way for me to examine the systematisation of space and its effect on the intimacy and specificity of place.

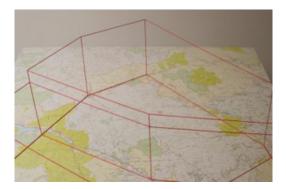
I want to move on now to some objects I made for the Newcastle residency, which are a kind of threedimensional cartography, wireframe models of military airspaces set on to Ordnance Survey maps (1:25000 scale).

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I made three of these model – each one of a different military Danger Area around the UK – this particular one is of the Otterburn Training Area in the North of England near Newcastle. Each assemblage slightly resembles the planning tables used during military briefings to describe tactical and strategic operations, but it was important try and envisage the airspace frame as a kind of vertical extension of the map, following the maps stylistic, pictographic conventions as closely as possible.

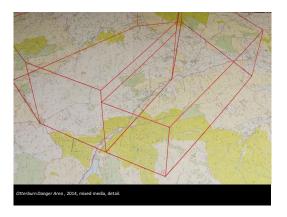
Slide 9



Slide 10



Slide 11



Slide 12



The process of making these airspace assemblages and images was not only an attempt describe an invisible aspect of military spatial production, but also a way of trying to think about spaces that are beyond the scale of human vision, and somehow capture or freeze the emerging geographies of military globalization — many of which are seemingly beyond our apprehension. They are also an attempt to draw attention to the British landscape including its's skies as a place augmented by digital and cartographic technologies, and enacted as simulations or proxies for conflict zones elsewhere around the globe. The politics of place is sometime far subtler than we readily appreciate, and militarization is a process which can stealthily occupy the landscapes we take for granted.

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