# Stranded: An Eruption of Disruption

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ABSTRACT An editorial introduction to a special section on the disruptions to air travel triggered by Iceland's Eyjafjallajökull's eruptions in April and May 2010. A spontaneously organized workshop and open call for papers gathered together analyses from different perspectives – systems theory, impromptu surveys, personal reflection, literary and philosophical probing. This introduction explores some of the connecting themes and highlights the strange, surprising and potently revealing nature of strandedness in a world of mobile lives.

KEY WORDS: Eyjafjallajökull; mobilities; risk; simulation; aeromobilities

#### Introduction

The Lord hath his way in the Whirlwind, and in the Storm, and the Clouds are the dust of his Feet.

The Storm (Defoe, 1704, front cover)

Fortunately, the extent of the volcanic eruption of Eyjafjallajökull this year was measured not in lives lost but only in flights lost. The event was not an humanitarian catastrophe, but a logistical calamity, exposing important fault-lines in the 'contours of the risk society' for those living on the 'volcano of civilization' in Ulrich Beck's words (1992, p. 19). Unlike the tragic classical eruptions of Vesuvius, where nearby inhabitants of Pompeii were abruptly petrified in mundane, quotidian poses, or the May 2010 eruptions of Pacaya and Tungurahua in Guatemala and Ecuador, where two people died and many others were injured or displaced, the eruption of Eyjafjallajökull only caused travellers to pause momentarily. Eyjafjallajökull was a blip in the constant flows that constitute globalized mobile lives (Elliott& Urry, 2010). It could be seen as a simulated catastrophe, which attracted simulated heroics. *Ad hoc* flotillas of ships evocative of the *miracle of Dunkirk* – intent on rescuing stranded UK citizens on the shores of Europe – never arrived, or were turned back by bureaucracy and systemic failure. Disrupted travellers tussled from terminal to terminal, spurred by

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Figure 1.

Source: Photo courtesy of Robert Simmon, Earth Observatory NASA, USA.

rumour and misinformation. In this sense the ash cloud can be seen as a 'dry run' that informs future curtailments of mass mobilities, such as financial crises, erratic weather and seismic events, peak oil and other resource constraints.

The ash cloud event was an eruption of disruptions. A bloodless coup, where images of stranded travellers sleeping in airport terminals eerily resonate with images of the victims of Vesuvius, killed prostrated in deep slumber. In Pompeii, those with the foresight to leave survived. When Eyjafjallajökull erupted, those that sought to flee from strandedness were ironically often the most affected, becoming embroiled in tightly coupled, interactively complex systems within systems (Capra, 1996; Urry, 2009). Attempts at responding to disturbances in such systems, which are always, naturally 'at the edge of chaos' (O'Regan, this issue), where normal accidents can have cascading effects, turned first to precautionary principles, then science, simulation and anticipatory governance (Adey & Anderson, this issue) and calls for more integrated mobilities policies (O'Regan, this issue). Responses were coloured by a media frenzy quickly characterizing both inaction and actions taken as a 'policy fiasco'.

As a result, even though the eruption of disruption caused by Eyjafjallajökull's ash cloud affected many people at multiple points within systems and thereby provided unprecedented opportunities for managers, operators, policy-makers, passengers and the public to understand the complexly nested interconnections of aeromobility systems, debate and the formulation of alternative imaginaries were stalled as the media focused on blaming a 'policy fiasco'. Personalizing responsibility obfuscated the immanent risk and contingency of aeromobility systems and the limits of normal policy and politics in the face of such complexity (Budd *et al.*, this issue). Path

dependencies of global capitalism, imaginary and real, that slow development of a more sustainable 'resource capitalism' were left unchallenged (John Urry in Adey & Bissell, 2010; Martin, this issue). On a more positive note, while the airline sector was quick to audit the extent of damage the eruption cost to the industry, other commentators measured the eruption in terms of savings of carbon emissions that would otherwise have been generated in air travel (Adam, 2010).

In retrospect, a number of questions emerge. What was at stake in this eruption of disruption? What was the cost? Was it money, comfort, leisure, productivity, safety, time? What does this eruption of disruption say about the global risk society and the path dependencies of late modernity (Arthur, 1994)? The articles in this special section offer a range of different analyses, critiques and responses to the event. The section includes micro, subjective accounts that mirror Pliny the Younger's frontline accounts of his flight from Vesuvius in 79 AD. Accounts from experts' own disruptions on the ground frame the issue as a political and historical event rather than an abstract, detached object of inquiry. To balance these accounts macro surveys of the dramatic cessation of aeromobilities, including aeroplanes, airports, and flights, illustrate the systemic cascades of organizations, policies, and infrastructures all going into freefall. Finally, the philosophical and metaphorical implications of disruptions to sustained and energy-intensive mobilities give an explanation of the event's wider ramifications in terms of immobility and behaviour. Together this special section is a cutting edge appraisal of the mobilities turn and consequent 'pause'.

# **Systems within Systems**

With the onset of dominant aeromobilities Bauman's 'liquid modernity' has been superseded by the much less 'fluid' sounding term 'gaseous modernity' (Bryant, 2007): a world beset by emissive, gravitating, and turbulent fluids. Manmade flows compete with nature's for airspace. While some forms of transport have been raised into the atmosphere, at least for short moments, the support and systems that underpin this mode of travel still remain on the ground. In *Mobilities* Urry describes the rapid escalation from pre-industrial mobility systems where modes of travel and support were combined and self-perpetuating, 'walking, horse-riding, sedan chairs, coach travel, inland waterways, sea shipping', to a dense global system that now includes support frameworks of multiple tiers, systems within systems, now including 'oil supply, docks, money transfer, inclusive tours, luggage storage, air traffic control, barcodes, bridges, timetables, surveillance' (Urry, 2007, p. 13). In the disruption of one of these tiers some parts of the 'volcano of civilization' briefly turned to a dormant state and the ash cloud initiated a dramatic reversal of mobilities that provoked a 'medieval sensation' for those in its midst (Tseboyev, 2010).

The ash cloud revealed not outright systemic failure, but weaknesses and vulnerabilities to cascading impacts across multiple tiers of complexity. The disruptions impacted on the functioning and economic growth of the tourist sector, with costs to the global airline industry estimated at US\$1.7 billion (£1.1 billion) after just a week of flight restrictions (Hall, 2010), affecting travel nearly everywhere, except perhaps Iceland itself, which actually utilized the event as a branding exercise (Benediktsson *et al.*, this issue). But for those under the ash cloud the event became a crisis across multiple domains. For many the 'travel crisis' incurred personal, economic, and

emotional costs, and experiences of abandonment, where much confusion and communication breakdown emerged from the multiple pathways and extended networks of travel agents and suppliers spread unevenly across multiple information portals, across national and regional boundaries, and language divides (Barton, this issue).

While news reports that a 'Toxic cloud descends upon Europe from Iceland' made the American Chemical Society's 'Top 10 Stupid Environmental Stories' in June (Schnoor, 2010) the chemically relatively benign but materially threatening ash cloud had real consequences. The most vocal victim of the crisis was the airline industry (Budd et al., this issue). A devastating history of volcanoes damaging aircraft is reflected in the precautionary principle of the initially very strict air-space regulation. When Vesuvius erupted in 1944 it wiped out a fleet of 88 US B-25 bombers stationed at Pompeii airfield (Brooker, 2010) and this and further incidents prompted experts to prohibit flight through volcanic ash clouds. But this crisis unfolded as the most serious impact to the industry yet. The severity of the Eyjafjallajökull ash cloud was a complex calamity: a combination of scarce airspace, climatic conditions and a peak travel season. While the most visual image of the event was the eruption column, an atmospheric cloud of tephra – a general term for fragments of volcanic rock and lava blasted into the air by explosions or carried upward by hot gases – and tiny particles of ash posed the greatest threat to aircraft engines (Brooker, 2010, p. 112). Volcanic dust is invisible but cumulatively disruptive to aircraft engines and an unknown in terms of expert knowledge and risk management. A handful of only decades-old systems and infrastructures, and equally embryonic technical standards around ash safety, began to unravel leading to cascading disruptions. The complex systems that are vital for economic exchange, work, and leisure were revealed to be insufficiently supported by complex systems of knowledge and mitigation of science, global insurance mechanisms, and institutional risk assessments (Adey & Anderson, this issue). All these systems collapsed due to an unforeseen natural calamity that led to a loss of control and breakdown.

### Mobilities and Strandedness

On first reflection, strandedness seems a natural opposite to mobility. But, in some ways, strandedness is also immanent to mobility. The inclination to create a home away from home – e.g. by arranging one's belongings and work tools across a seat on a train or plane, or a hotel room (Watts & Urry, 2008; Elliott & Urry, 2010) – is a fundamental response to the experience of travel. In fact, dwelling in unfamiliar places compensates for other more alien travel experiences: discomfort, culture shock and fatigue. Other practices of dwelling in mobility (Urry, 2007) also include the closed, private space of the automobile (Sheller, 2005); the isolating personal technologies and practices that shelter people from unwanted interaction whilst on public transport in the spacing of one's possessions for privacy and through shielding with newspapers, games and music players (Goffman, 1963; Bull, 2007); the infrastructure in hotels and hubs such as lounges and comfortable rooms to make one feel 'at home'. All of these strategies ease 'tolerance' of strandedness.

Thus strandedness can be mitigated through measures that enable people to endure strange surroundings. But in the routines that constitute everyday and occasional travel there are levels of comfort and convenience that are highly susceptible to breakdown.

In mobile lives disruption stemming from delays, crowding, strikes and crashes is commonplace. And some travellers and some situations are more capable or conducive to tolerance than others. 'Road-rage', 'cycle-rage' and even 'air-rage' are examples of tempers strained too far. Comfort can mitigate disruption, such as the executive lounge, the quiet coach, the seat with more room on the aeroplane or the larger disabled or elderly spaces on the bus; the different grades of class including economy, business, and first class. These comforts grant mobility 'freedoms' that allow people to accept and routinize transport habits. Freedoms can become 'unfreedoms' when unintended consequences, such as strandedness, happen (Freudendal-Pedersen, 2009). While people are able to tolerate extreme change and conditions under extreme circumstances — war, famine, forced migration — this tolerance is hard to generate under normal travel conditions, where a sense of entitlement to public or paid-for commercial services and infrastructures reigns. This can be extremely unequal (Graham & Marvin, 2001). In the global South, for example, there are huge inequalities in transport that nevertheless continue as part of a predictable and ongoing status quo. Images of crowded trains in India and China bear witness to people's abilities to tolerate extreme but reliable systems that crucially keep crowds rhythmic rather than letting them stagnate and stretch people's tolerances as 'the longer a crowd remains stagnant, the longer it feels and manifests its density ... patience has its limits' (Canetti, 2000, p. 35).

## Views from the Frontline

Many of those stranded in airport terminals, in hotels, and train stations by the volcanic eruption of Eyjafjallajökull this year might have felt a strange surprise in such an abrupt cessation of mobility, or stillness (Martin, this issue). Hage refers to this sense of waiting in times of crisis in our lives as 'stuckedness' (2009, p. 101). The many people stranded in the wake of Eyjafjallajökull found themselves shifting from the routine of unhindered mobility to an involuntary exile, 'both an absence of choices or alternatives to the situation ... and an inability to grab such alternatives even if they present themselves'. Thus, in this type of crisis widespread systemic stability quickly works against individuals, rendering them victims. As systemic complexity is brought to a standstill choices are reduced to a stunning simplicity: fight, flight, or 'wait'.

The urge to flight was exacerbated by the Baudrillardian, 'simulated' heroism of governments and sympathizers. The promised rescue warships and buses sent by the British government never arrived or were turned back. Insurance companies reneged on their promises of support. Airlines were advised to wait until the ash cloud passed. As the crisis deepened, so too did the wider sense of stuckedness. Rather than just wait, the stranded sought 'fight or flight': in this case fight with travel agents, hotels, or even other stranded; or seek flights to other destinations to try and invent new and often inconvenient routes home. Both of these responses merely compounded strandedness for passengers and ultimately immobility as systems cascaded.

The event was a 'dry run' also for those who waited it out, turning to electronic communications and remote work and networking through Web 2.0 mobile and smart phone technologies as personal resources (Barton, this issue). A global media structure geared to 'map' one's own society and its culture 'to have some ability to reflect upon and judge aesthetically between different natures, places and societies' was

mobilized in the ash cloud to provide a globally recognizable face to the cosmopolitan disaster, lending a 'visuality' to the disruption (Szerszynski & Urry, 2006, p. 115). The global visuality of the catastrophe to cosmopolitanism served to invoke fear and at the same time allay it for those stranded in cosmopolitan spaces (Jensen, this issue).

As Kenneth E. Kendall (2010) recalls on being stranded in London, Web 2.0 smart phone apps, twitter feeds and social networking sites offering real-time updates proved more reliable than the screens in airports and the information on airlines' sites. Smart phones with access to pervasive 3G networks were more advantageous than personal computers dependent on fixed, and secured, wireless networks, allowing users to be freed from hubs and hotel lounges (Jensen, this issue). Further, 3G internet access allowed constant news feeds and reports on the move (Barton, this issue). Such exposure also brought to light the usually hidden facts of how distant lives were affected by the disruptions. Thus the media exposure to the plight of those losing their jobs in a flower factory near Kenya's Lake Navaisha (Jensen, this issue) due to the mass dumping of rotted flowers in the Eyjafjallajökull disruption highlighted the complex ties affecting more than just an elite of the mobile, global cosmopolitan class (Wasserman, 2010).

## Stranded in Mobility

Mobile lives in both spatial and social terms create a compulsion to move (Urry, 2007) that provokes new and perpetuates old mobilities and forms of 'mobility capital' (Kaufmann et al., 2004). Many of the authors in this issue were affected by this event not only as objective academics and scientists, but as commuters, travellers, and participants in global flows that bind careers and individuals together through travel. The ash cloud demonstrates that travellers' (sense of) control over their mobile lives can be compromised by the unknown and unheralded. Thus in the context of the mobilities 'turn', and conceptual 'turning' in the social sciences more generally, 'pauses' like the ash cloud should be given critical attention. The notion of constant turning needs to be accompanied by moments of stillness (Martin, this issue); uninterrupted thought; meditation on careers tied to movement and geographies of expertise; consideration of personal and institutional uses of energy, resources and the environment. The flames and smoke of the volcano are more than just a global symbol of the event but resonate with ancient metaphors embedded in nature about fire and immobility (Diken, this issue). Thus the ash cloud event invokes a provocative 'pause', a revealing breakdown or 'breaching experiment' (Garfinkel, 1967) for mobilities researchers. As Urry reminds us mobilities is not only about the ease of travel facilitated by flows, systems and networks. Equally important are oil, the climate and resource constraints to 'frustrations' stemming from the disrupted 'right to mobility' (in Adey & Bissell, 2010, p. 11).

The ash cloud is thus a reminder of the raw power of nature and the base elements that underpin and that can disrupt global flows. The global as a system can be a *deus ex machina* that is only made apparent through radical change (Urry, 2003, p. ix). Globally impactful events like the ash cloud generate new forms of control and new mobile imaginaries, and serve as a reminder that the power to orchestrate and 'engineer' the environment can be crushed by nature and the cascading effects it can trigger in our systems. Interests in geo-engineering as a solution to climate change, for instance,

through releasing sulphate aerosols in the stratosphere to mimic volcanic eruptions might have similar knock-on effects and unintended consequences for the natural and man-made environments to Eyjafjallajökull (House of Commons, 2009, p. 646). It is a timely reminder that normal responses to catastrophe, such as philanthropy and aid, are ways of establishing control only *after* serious events.

## The Compulsion to be Mobile

One of the most striking lessons from the ash cloud event was that needs and desires to be somewhere else are never sated, regardless of disruption and systemic breakdowns. Many travellers who experienced strandedness continued to travel – either physically, along alternative routes and at considerable cost, or online, using new technologies to access files, work meetings and be with loved ones 'virtually'. The effort needed placed normal mobilities into stark relief, but it also highlighted 'compulsory' aspects of the deeply mobile nature of contemporary societies. Over three centuries ago Daniel Defoe – who also wrote an eye-witness account of the Great Storm of 1703 in England – upon witnessing the massive increase in the demand for constant mobility hardwired into colonialism, wrote of an emotional state that is eerily familiar today:

Thus, we never see the true State of our Condition till it is illustrated to us by its Contraries, nor know how to value what we enjoy, but by the want of it. It is scarce possible to imagine the Consternation I was now in, being driven from my beloved island (for so it appeared to me now to be) into the wide Ocean, almost two Leagues, and in the utmost Despair of ever recovering it again. (1719a, p. 164)

As the stranded Yorkshireman and speculative merchant Robinson Kreutznaer (Crusoe) laments leaving the solitary island to which he has become accustomed, he also seeks a way home across the oceans in a make-shift raft. Departing, he is rendered eternally stranded in mobility by his desires. His sense of consternation would be familiar not only to those who chose 'fight or flight' in the Eyjafjallajökull catastrophe only to find themselves again stranded in different circumstances, but also those who on return found themselves planning their next journey. It might be thought that Crusoe (and those similarly affected in 2010), having suffered strandedness on his island for over two decades, would avoid further travel. But, on the contrary, Defoe describes in a follow-up to his original book how Crusoe leaves his farm in Bedford and travels a further three parts of the globe (1719b). After revisiting his island he then travels on to Madagascar, Brazil, China, Siberia and Germany with many adventures on the way. Being stranded on the island turns out to only be a pause in Crusoe's seventeenth century mobile life.

The 'strange and surprising' nature of the adventures Defoe describes in the original title pages of both volumes is not just due to the extensive mobility of the protagonist, but also derives from his cataclysmic and yet liberating collapse into a state of absolute immobility and resourcelessness at a time of vast movement (elsewhere). The stranded travellers under the ash cloud expressed a similar sense of liberation (Guiver & Jain, this issue). It can act as a reminder that people could live without mobility and vast resources. In a sense the stranded are all returned to a

'resourceless' state in the act of being stranded, a process that is simultaneously humiliating, frightening, liberating and ennobling and forces a reliance on intuition and resources at hand (Barton, this issue; Jensen, this issue).

Nature both underpins and can disrupt complex systems. Forces like fire, air, earth or water can give life and take it, as in Melville's fictional account of the hunted whale Moby Dick's sinking of the whaler the *Perquod – 'It was cold as Iceland – no fire at all'* (1851, p. 18) – and the subsequent strandedness of Ishmael, the sole survivor of the disaster (Diken, this issue). Consequently, a type of heroism and solidarity emerges from stuckedness where waiting out a crisis is akin to Robinson Crusoe's pragmatism in the face of resourcelessness on his solitary island. Therefore, strandedness does not necessarily lead to a breakdown of social order, but rather – like Cuba's post-oil recovery – can result in a newfound discovery of local control. However, the compulsion for mobility is hard to control – there may be no way to resolve people's deeply ingrained drive for travel and movement. Thus the Eyjafjallajökull ash cloud could be either a portent of things to come or merely a fleeting immobility.

This special section results from an ad hoc workshop organized by the Centre for Mobilities Research to provide a forum for analyses and reflexive accounts of the disruptions triggered by the eruption of Eyjafjallajökull. The papers that follow begin to explore and historicize this event and its implications for travel and mobilities research. Key questions focus on what the eruption means for imaginaries around, and dependencies on, flying; co-modality and future mobilities more generally; policy and regulation; the risks and contingencies immanent in global travel the pervasive expectations of fluidity and ease of passage across different cultures, languages, infrastructures, and domains; the links between travel, social relationships, employment, productivity and new technologies; and the future disruptions that the event might foretell. Many might see the ash cloud as a dress-rehearsal or dry run for oncoming threats to mobility posed by peak oil and climate change (Dennis & Urry, 2009). For others the event was a mere mishap, over-dramatized, a test, or a mild disruption that will be remembered anecdotally. Either way, in retrospect most of those stranded, like Crusoe, continue with their mobile lives, having paused involuntarily only briefly, with little incentive to reflect more comprehensively or collectively on a 'strange, surprising' moment of immobility.

## **Notes**

1. Whale blubber was an 'oil' energy resource in Melville's time used for home lighting and heating literally to bring 'fire', light, and enlightenment into the home.

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