

## Beyond the line of sight?

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Like me, you may not be delighted by the idea that the apparently almost inevitable introduction of delivery drones into UK skies will probably inflate the personal wealth of Amazon's Jeff Bezos to even more obscene proportions. According to Forbes magazine in September last year, his fortune rocketed by 65% to \$186.2 billion (around £136 billion odd) during the pandemic due to increased demand.<sup>1</sup> And what about the precariously employed drivers doing the 'essential work' of meeting the multifarious needs of that part of the UK population currently cloistered at home as Sars-CoV-2 surges out of control again? How will they make a living once autonomous vehicles of one kind or another put them out of their jobs?

This future hasn't yet arrived and we shouldn't allow it to absorb all of our attention, as ominously as it looms. The present of drone use is not confined to geographically remote conflict situations, or domestic hobbyists. They are being used in the Mediterranean by EU agencies and European states to help to deter migrants attempting to make sea crossings and, once UK airspace is opened up fully to drones, our government is likely to try to follow suit in the English Channel. This is the claim of Peter Burt and Jo Frew in a report published in December 2020 by Drone Wars, *Crossing A Line*, which provides a comprehensive overview of border deployments past and present, here and across the globe.<sup>2</sup>

Europe's response to the refugee crisis - a crisis at least in part manufactured in and by European states as well as North America - is scandal of proportions that have scarcely been acknowledged. In January, the UN Human Rights Committee determined that Italy failed in its duty to protect the right to life back on 11 October 2013 when it referred requests for help from a boat sinking 113km south of the Italian island of Lampedusa to the Maltese coastguard 218km away. The Committee found that over 200 mainly Syrian passengers drowned as a result of the delay, including 60 children.<sup>3</sup> The central Mediterranean route into Europe has been designated the most dangerous migration route in the world. In April 2019, one person in ten died attempting the sea crossing from North Africa to Italy<sup>4</sup> and already this year, 43 migrants have lost their lives in a shipwreck off the Libyan coast.<sup>5</sup> According to figures collected by the UNHCR, since the wreck in late 2013 over 20,000 migrants have died or are recorded as missing attempting to cross into Europe via Mediterranean land and sea routes.<sup>6</sup> In spite of the risks, most migrants who reached Europe via 'irregular' routes in 2019 did so by sea, making landfall in Spain, Italy or Greece.<sup>7</sup>

According to the narrative constructed by the authors of *Crossing A Line*, in the mid-2010s the European response to 'irregular' migration shifted irrevocably from rescue to surveillance and border control, decisively with the initiation of a new operation in 2015 which had as a primary objective combatting people smuggling.<sup>8</sup> The failure of the EU and European states to commit resources to rescuing migrants from this time is being compounded currently by efforts to hamper

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<sup>1</sup> As reported by the Guardian here:

<https://www.theguardian.com/business/2020/sep/17/wealth-of-us-billionaires-rises-by-nearly-a-third-during-pandemic>

<sup>2</sup> Peter Burt and Jo Frew: *Crossing A Line: The use of drones to control borders*, published in December 2020 by Drone Wars. Available for download at: <https://dronewars.net/wp-content/uploads/2020/12/DW-Crossing-a-Line-WEB.pdf>

<sup>3</sup> See: <https://www.aljazeera.com/news/2021/1/27/un-experts-fault-italy-in-drownings-of-over-200-migrants>

<sup>4</sup> World Migration Report 2020, edited by Marie McAuliffe and Binod Khadria, published by International Organization for Migration 2019: p95

<sup>5</sup> See:

<https://www.theguardian.com/global-development/2021/jan/21/shipwreck-claims-the-lives-of-at-least-43-migrants-off-the-coast-of-libya>.

<sup>6</sup> See: <https://data2.unhcr.org/en/situations/mediterranean>

<sup>7</sup> See: <https://www.infomigrants.net/en/post/21811/migration-to-europe-in-2019-facts-and-figures>

<sup>8</sup> *Crossing a Line*: pp13-14

the work of NGOs with rescue missions. It is reported that there is currently only one NGO-operated vessel patrolling the central Mediterranean route because the others are being held under various pretexts by Italy or other European countries.<sup>9</sup> On top of this, there is evidence that local coastguard and EU agencies have been involved in ‘push’ and ‘pull-back’ operations which contravene rules preventing the forcible return of refugees and asylum seekers and the International Convention for the Safety of Life at Sea, which obliges seafaring vessels to assist people in danger at sea.<sup>10</sup> Aircraft - manned or unmanned - are not under a duty to rescue migrants, who are manifestly at risk at sea in overcrowded and inadequate boats, and EU operations since April 2019 have employed aircraft in conjunction with local coastguards at the point of departure to try to prevent more migrants from arriving in Europe.<sup>11</sup>

The use of drones is restricted because of safety concerns about their use in ‘unsegregated’ airspace, that is, alongside conventional aircraft. On mainland Europe, as in the UK, drones can only be used alongside other aircraft if the drone remains within the ‘visual line of sight’ of a remote pilot who is able to manoeuvre the aircraft to avoid collisions, or by special dispensation of the aviation authorities. In spite of these restrictions, EU agencies and individual European states have used drones in surveillance operations over the Mediterranean and elsewhere over the last few years. The authors of *Crossing A Line* report that the European Maritime Safety Agency operates a fleet of drones available for lease by EU member states for monitoring and surveillance purposes,<sup>12</sup> and they list five active contracts with drone operators,<sup>13</sup> as well as several current requests for use of these drones from states with Mediterranean borders<sup>14</sup> and with borders on the English Channel.<sup>15</sup> They also report that, in September last year, the EU’s border and coastguard agency, Frontex, provided the Greek government with four drones to assist in their response to attempted crossings by migrants from Turkey.<sup>16</sup> In October, Frontex awarded two €50 million contracts for aerial drone operations to search for boats carrying migrants in the central and eastern Mediterranean, including off the coasts of Libya, Tunisia and Egypt. The contracts were awarded to Airbus Defence, working with Israel Aerospace Industries, and to Elbit Systems Limited.<sup>17</sup> (Frontex’s selection of drone companies manufacturing armed drones for the use of the Israel Defence Forces in the Palestinian Territories has prompted questions in European Parliament<sup>18</sup> and a call to action from Stop the Wall and the European Coordination of Committees and Associations for Palestine.<sup>19</sup>)

Crossings of the English Channel by migrants in dinghies and other small vessels departing mainly from Calais hit the headlines last spring, partly through Nigel Farage’s activism. The numbers of people attempting to make the crossing quadrupled in 2020 according to *Agence France Press*, with 9,500 people managing to reach British shores. Six migrants lost their lives in

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<sup>9</sup> See: <https://www.aljazeera.com/news/2021/1/23/ocean-viking-ship-rescues-hundreds-of-migrants-off-libya-coast>, <https://www.theguardian.com/global-development/2021/jan/21/shipwreck-claims-the-lives-of-at-least-43-migrants-off-the-coast-of-libya>

<sup>10</sup> See:

<https://www.bellingcat.com/news/2020/10/23/frontex-at-fault-european-border-force-complicit-in-illegal-pushbacks/> and <https://www.statewatch.org/news/2020/october/eu-frontex-on-cooperation-with-libya-nothing-to-see-here/>

<sup>11</sup> *Crossing A Line*: p14

<sup>12</sup> *Crossing A Line*: p17

<sup>13</sup> *Crossing A Line*: p17

<sup>14</sup> *Crossing A Line*: p18

<sup>15</sup> *Crossing A Line*: p28

<sup>16</sup> *Crossing A Line*: p20

<sup>17</sup> *Crossing A Line*: p21, <https://stopwapenhandel.org/node/2432> and

<https://www.theguardian.com/business/2020/oct/20/airbus-to-operate-drones-searching-for-migrants-crossing-the-mediterranean>

<sup>18</sup> [https://www.europarl.europa.eu/doceo/document/E-9-2020-003321\\_EN.html](https://www.europarl.europa.eu/doceo/document/E-9-2020-003321_EN.html)

<sup>19</sup>

<https://www.eccpalestine.org/faced-with-public-pressure-the-eu-reshapes-use-of-israeli-military-drones-in-the-mediterranean/> and <https://petition.stopthewall.org>

attempts to cross the Channel and three were reported missing.<sup>20</sup> Attempts have continued into this year in spite of the pandemic, Britain's exit from the EU and wintery weather.<sup>21</sup> The UK has agreements with the French government to control movement across the Channel from the French side of the border and the UK Border Force, with the support of local police forces and the UK Maritime and Coastguard Agency providing aircraft for aerial surveillance, control the UK's side of the border.<sup>22</sup> The authors of *Crossing A Line* report that while there has been some drone use as part of an effort to deter migrants from attempting the crossing by both French and British agencies, these have been hampered particularly by the requirement for drones to remain within the visual line of sight. In August last year the Royal Air Force was drafted in to assist the Border Force and the Army deployed a drone which conducted limited patrols in the Channel, but the involvement of the military was largely for show.<sup>23</sup>

The UK government is investing heavily in research in artificial intelligence and related technologies. UK Research and Innovation ranks the UK as third in the world in this field and claims that pioneering countries "could gain an extra 20-25% of economic growth and productivity through AI over the next decade."<sup>24</sup> As part of the Connected Places Catapult Pathfinder scheme, from May 2020 Elbit Systems UK undertook demonstration flights for the Maritime and Coastguard Agency testing drones in search and rescue operations in unsegregated, civilian, airspace.<sup>25</sup> Further flights were announced in February this year.<sup>26</sup> Cranfield University, which doesn't feature in *Crossing A Line*, seems to be playing a non-trivial role in research into the safe use of unmanned vehicles in unsegregated airspace. It chairs the Academic Resilience & Security Community (RiSC), a network of universities conducting research in the field of defence and security, conjured into existence by the Home Office. Academic RiSC describes its role as disseminating "requests and opportunities in security and resilience from government and industry to academia. We collate inputs from across the network for transmission back to the requesting party."<sup>27</sup> Which suggests a rather more modest role for the participating institutions than appears, in actuality, to be the case.

In August 2018, the university, which incorporates an airport, announced the development of a "drone experiment corridor" in partnership with Blue Bear Systems Research Limited. The aim of the project is to provide "a safe, managed environment for drone and unmanned aircraft experimentation which will work towards their integration into controlled and uncontrolled airspace."<sup>28</sup> The first test flights took place in February 2019 and soon after the university announced that Thales and Vodafone were joining the project.<sup>29</sup> On 20 January this year, a new consortium, Airspace of the Future with similar, if more ambitious, objectives was announced on the Catapult, Connected Places website, incorporating Cranfield University, Blue Bear, Thales and

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<sup>20</sup> As reported by InfoMigrants:

<https://www.infomigrants.net/en/post/29579/2021-migrants-continue-to-cross-channel-in-hope-of-reaching-uk>

<sup>21</sup> See:

<https://www.infomigrants.net/en/post/29699/more-migrants-prevented-from-crossing-channel-report-british-and-french-police>

<sup>22</sup> *Crossing A Line* pp27-33

<sup>23</sup> *Crossing A Line*, p31

<sup>24</sup> <https://www.ukri.org/about-us/what-we-do/ai-review-transforming-our-world-with-ai/#contents-list>

<sup>25</sup>

<https://www.elbitsystems-uk.com/media-events/recent-news/elbit-systems-uk-demonstrates-hermes-900-maritime-search-rescue-flights-for-the-maritime-and-coastguard-agency>

<sup>26</sup>

<https://www.elbitsystems-uk.com/media-events/recent-news/elbit-systems-uk-selected-by-the-uk-mca-to-conduct-uas-maritime-trial-flights>

<sup>27</sup> <http://www.academic-risc.org/index.php/academia/>

<sup>28</sup> <https://www.cranfield.ac.uk/press/news-2018/blue-bear-and-cranfield-to-create-drone-experiment-corridor#>

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<https://www.cranfield.ac.uk/press/news-2019/thales-and-vodafone-join-national-beyond-visual-line-of-sight-experimentation-corridor-partnership>

several new partners, having won an unspecified amount in the government's £125 million Future Flight Challenge.<sup>30</sup> Cranfield University describes itself as the "UK's most business-engaged University," with partnerships with Airbus, BAE Systems, Boeing and Rolls-Royce. In addition to the airport and experimental flight corridor, the university boasts the Aerospace Integration Research Centre, with a price tag of £35 million, which came into being with the support of Airbus and Rolls-Royce, and the Digital Aviation Research and Technology Centre, still under construction at a cost of £65 million, which will boost its research capabilities in this field.<sup>31</sup>

A future is being engineered involving government, government funded institutions and public funds without much input from civil society, or obvious accountability, certainly when it comes to the use of drones in border control operations. Little is clear here, except for the apparent infiltration of defence and security objectives into many areas of university research activity and the further entanglement of universities with government and business. If we want to shape the future being envisioned, we too will have to find ways of mirroring the breadth and sophistication of their organisation.

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<sup>30</sup> <https://cp.catapult.org.uk/news/taking-flight-tech-leaders-come-together-to-develop-the-future-of-uk-aviation/> and <https://www.dsjournal.com/2021/01/28/taking-flight-tech-leaders-come-together-to-develop-the-future-of-uk-aviation/>

<sup>31</sup> <https://cp.catapult.org.uk/news/taking-flight-tech-leaders-come-together-to-develop-the-future-of-uk-aviation/>