Title: Introduction of police powers and stop and search for UAS misuse **IA No:** DfT00410 **RPC Reference No:** RPC-4365(1)-DfT **Lead department or agency:** Department for Transport **Other departments or agencies:** Home Office	Impact Assessment (IA) **Date:** 20/05/2021 **Stage:** Final **Source of intervention:** Domestic **Type of measure:** Primary legislation **Contact for enquiries:** unmannedaircraftteam@dft.gov.uk

Summary: Intervention and Options

RPC Opinion: Fit for Purpose

Cost of Preferred (or more likely) Option (in 2016 prices)			
Total Net Present Social Value	**Business Net Present Value**	**Net cost to business per year**	**Business Impact Target Status**
£-1.4	£-0.5	£0.1	Non-Qualifying provision

What is the problem under consideration? Why is government intervention necessary?

Unmanned aircraft systems (UAS) have the potential to offer great economic and societal benefits to the UK, but their misuse also poses serious risks. While Government supports the positive use of UAS, it also has a responsibility to protect the safety of the public, and take action to mitigate the safety, security and privacy risks.

Whilst a range of legislation already exists to make the misuse of UAS illegal, a number of operational gaps have been identified which limit the police's ability to respond to, investigate and prosecute these crimes.

What are the policy objectives and the intended effects?

In the response to its consultation on the safe use of drones (the most common form of UAS) in the UK (published July 2017), the Government committed to a review of the current powers available to enforcement agencies when enforcing relevant laws.[1] The objective of this proposal is to address the key gaps that this review has highlighted, to improve the ability of the police to respond to UAS misuse, and therefore reduce the irresponsible and malicious use of UAS.

This impact assessment (IA) updates the assessment of 3 January 2020 which was published alongside the Bill at introduction on 9 January 2020. The objectives and intended effects of the policy in respect of the police powers remain the same. During the Bill's passage through Parliament, however, changes in EU (now retained) law and domestic secondary legislation affecting the substantive rules and criminal offences relating to UAS meant it was necessary to amend the Bill at report stage in the House of Lords. Those amendments were made to ensure the police powers continued to apply to appropriate offences and to ensure they did not apply to offences that had been revoked. In light of those changes the analysis, terminology and references to criminal offences in this IA have accordingly been updated, but the conclusions as to cost and impacts are unaffected.

[1] Department for Transport. (2017). Unlocking the UK's High Tech Economy: Consultation on the Safe Use of Drones in the UK: Government response. Retrieved from https://www.gov.uk/government/consultations/benefits-of-drones-to-the-uk-economy

What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base).

Option 1: Do nothing.

Option 2: Use the Air Traffic Management and Unmanned Aircraft Bill to:

- Enhance the powers of the police so that they can effectively intervene and respond to UAS misuse incidents and investigate those who are suspected of misusing them.
- Grant stop and search powers to the police to improve their ability to deter and respond to contraventions of article 94A of the Air Navigation Order 2016 (ANO 2016).

Option 2 would deliver Ministers' public commitments, however could miss an opportunity to achieve more.

Option 3: *[Recommended]*

In addition to the proposals in Option 2, *also* use the Air Traffic Management and Unmanned Aircraft Bill to grant stop and search powers to the police to improve their ability to respond to a wider range of UAS offences, including the use of UAS to convey items into prisons.

As illustrated by **ANNEX A**, which summarises the content of Part 3 the Bill, the Air Traffic Management and Unmanned Aircraft Bill also includes an amendment to the Police Act 1997 to allow the police, the Civil Nuclear Constabulary (CNC) and prison authorities to authorise the operation of counter-UAS measures to prevent or detect unlawful UAS use. The Home Office (HO) have concluded that this provision of the Bill will have minimal economic implications and will not require an IA or clearance by the Regulatory Policy Committee (RPC). Further explanation of this proposal can be found in the introduction to the Evidence Base section. If amendments are made in future to the Bill (when it is an Act) in light of relevant subordinate legislation, separate assessments will also be submitted as necessary.

In parallel to the Air Traffic Management and Unmanned Aircraft Bill, a number of non-regulatory measures are being pursued. The Government believes a package of measures is required to manage the challenges UAS pose. This includes working with manufacturers on product standards, improving education and public awareness of the rules (for example, partnering with the Civil Aviation Authority (CAA) to promote the Drone Code, a set of simple rules for flyers to be aware of) and working with critically important infrastructure providers (such as airports) on how to protect the public (including counter-UAS measures and technical solutions).

Will the policy be reviewed? It will be reviewed. **If applicable, set review date:** N/A (see further information below)

Does implementation go beyond minimum EU requirements?		N/A		
Is this measure likely to impact on trade and investment?		N/A		
Are any of these organisations in scope?	**Micro** Yes	**Small** Yes	**Medium** Yes	**Large** Yes
What is the CO_2 equivalent change in greenhouse gas emissions? (Million tonnes CO_2 equivalent)		**Traded:** N/A	**Non-traded:** N/A	

I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.

Signed by the responsible: Robert Courts Date: 20 May 2021

Summary: Analysis & Evidence

Policy Option 2

Description:

- Create new powers for the police so that they can effectively intervene and respond to UAS misuse incidents and investigate those who are suspected of misusing UAS (including search of premises under warrant);
- Grant stop and search powers to the police to improve their ability to deter and respond to contraventions of article 94A of the ANO 2016.

For further details of these measures and the offences to which they relate, please refer to **ANNEX A**.

FULL ECONOMIC ASSESSMENT

Price Base Year 2019	PV Base Year 2019	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: -4.2	**High:** -0.5	**Best Estimate:** -1.5

COSTS (£m)	Total Transition (Constant Price)	Years	Average Annual (excl. Transition) (Constant	Total Cost (Present Value)
Low	0		0.1	**0.5**
High	0		0.5	**4.2**
Best Estimate	0		0.2	**1.5**

Description and scale of key monetised costs by 'main affected groups'

Costs include on-going costs to commercial UAS operators, remote pilots and police as a result of the powers to conduct compliance checks (these are checks to deal with UAS misuse incidents). These costs are driven by the time taken to produce the required evidence, such as an operational authorisation to carry out a particular operation, and a simplifying assumption that all commercial UAS operators or remote pilots would be stopped once every year in order to provide a sense of scale of the cost (different assumptions are used for both high and low scenarios). Cost to non-commercial UAS operators and remote pilots has not been monetised.

Other key non-monetised costs by 'main affected groups'

Costs of non-compliance are excluded from the Business Impact Target (BIT) and cost to business. Impacts of fixed penalty notices (FPNs) will be fully assessed through secondary legislation. FPNs should apply zero weight to offenders so that the gains to offending are not counted as a benefit and the associated punishment is not treated as a cost to the individual. The stop and search powers (in relation to contraventions of article 94A of the ANO 2016) have not been monetised as these costs would only apply if an individual is suspected of having committed an offence. We have limited evidence on the impact to business as a result of the use of stop and search powers and therefore will continue to review this policy on an on-going basis. Cost of time for non-commercial UAS operators and remote pilots searched and police searching non-commercial UAS operators and remote pilots has not been monetised due to lack of data on expected non-commercial UAS operators and remote pilots. Familiarisation cost to police has not been monetised as these powers would be communicated to officers through existing mechanisms. These costs would be small and therefore would be disproportionate to monetise them. The cost to police to conduct stop and searches has not been monetised due to lack of clarity on how many stop and searches would take place in a given year, and therefore the policy will be reviewed on an on-going basis. The cost to Criminal Justice System (CJS) agencies as a result of an increase in proceedings has not been monetised given the high level of uncertainty about the number and type of arrests, charges and convictions that might result from these policies.

BENEFITS (£m)	Total Transition (Constant Price)	Years	Average Annual (excl. Transition) (Constant	Total Benefit (Present Value)
Low	0		NQ	**NQ**
High	0		NQ	**NQ**
Best Estimate	0		NQ	**NQ**

Description and scale of key monetised benefits by 'main affected groups'

No monetised benefits due to uncertainty regarding the scale, value and causality of the benefits of security, safety and privacy to other airspace users and wider society. Additionally, it is unclear how effective these powers will be in delivering the policy objective; however, the operational gaps this policy addresses will improve the police's ability to respond to incidents.

Other key non-monetised benefits by 'main affected groups'

Giving the police the power to ground UAS would have the benefit of putting an immediate end to offending flights that could potentially endanger safety and security. Safety and security could be improved through the reduced risk of collision between manned aircraft and UAS. The power to issue an FPN ensures an effective and immediate deterrent where a specific offence has been committed and reduces pressure on the magistrates' court for less serious offending involving UAS, which will be given effect through secondary legislation. The new stop and search powers would enable the police to deal with the threat of UAS misuse more effectively in relation to article 94A of the ANO 2016, where currently police do not have adequate powers to stop and search suspects and vehicles. This option would not grant police stop and search powers on a wider range of offences involving UAS, like stop and search in respect of offences under the Prison Act 1952, the Prison Act (Northern Ireland) 1953 and the Prisons (Scotland) Act 1989, as well as common law offences in relation to prisons in Scotland.

Key assumptions/sensitivities/risks	**Discount rate**	3.5

Costs are dependent on assumptions regarding future UAS market growth, and low and high scenarios illustrate the level of uncertainty. The central case scenario assumes that each commercial UAS operator or remote pilot would be stopped once every year, the low case scenario assumes that one in two commercial UAS operators or remote pilots are stopped once every year and in the high case scenario we assume that each commercial UAS operator or remote pilot would be stopped twice a year. This is presented to give a sense of scale of the cost rather than a precise estimate. Given the uncertainty regarding the total number of stops likely to take place per year, we have used a fairly pessimistic scenario for the maximum number of checks per annum. We are quite confident that the total number of checks per year will fall below this number, therefore – although it is not clear how many stops will take place per year in practice – this upper bound sensitivity helps provide a maximum order of magnitude of the impact of this change. The impact on the CJS as a result of FPNs will be explored in IAs accompanying relevant secondary legislation. CJS impacts as a result of other policies will be assessed through regular dialogue with the Ministry of Justice (MoJ).

BUSINESS ASSESSMENT (Option 2)

Direct impact on business (Equivalent Annual) £m:			**Score for Business Impact Target (qualifying provisions only) £m:**
Costs: 0.1	**Benefits:** 0.0	**Net:** 0.1	N/A

Summary: Analysis & Evidence — Policy Option 3

Description:

- Create new powers for the police so that they can effectively intervene and respond to UAS misuse incidents and investigate those who are suspected of misusing UAS. *[as per Option 2]*
- Grant stop and search powers to the police to improve their ability to deter and respond to contraventions of article 94A of the ANO 2016. *[as per Option 2]*
- ***Also*** **use the Air Traffic Management and Unmanned Aircraft Bill to grant stop and search powers to the police to improve their ability to respond to a wider range of offences that can be committed with a UAS, including the use of UAS to convey items into prisons.**

For further details of these measures and the offences to which they relate, please refer to **ANNEX A**.

FULL ECONOMIC ASSESSMENT

Price Base Year 2019	**PV Base Year** 2019	**Time Period Years** 10	**Net Benefit (Present Value (PV)) (£m)**		
			Low: -4.2	**High:** -0.5	**Best Estimate: -1.5**

COSTS (£m)	**Total Transition** (Constant Price)	Years	**Average Annual** (excl. Transition) (Constant	**Total Cost** (Present Value)
Low	0		0.1	**0.5**
High	0		0.5	**4.2**
Best Estimate	0		0.2	**1.5**

Description and scale of key monetised costs by 'main affected groups'

Costs are the same as those outlined in policy option 2. The additional cost of the wider use of stop and search powers has not been monetised as these costs would only apply if an individual is suspected of having committed an offence against existing laws. We have limited evidence on the impact to business as a result of stop and search powers and therefore will continue to review this policy on an on-going basis. The familiarisation cost to police as a result of these additional stop and search powers has not been monetised as these powers would be communicated to officers through existing mechanisms. These costs would be small and therefore it would be disproportionate to monetise them.

Other key non-monetised costs by 'main affected groups'

Non-monetised costs are the same as those outlined in policy option 2.

BENEFITS (£m)	**Total Transition** (Constant Price)	Years	**Average Annual** (excl. Transition) (Constant	**Total Benefit** (Present Value)
Low	0		NQ	**NQ**
High	0		NQ	**NQ**
Best Estimate	0		NQ	**NQ**

Description and scale of key monetised benefits by 'main affected groups'

No monetised benefits.

Other key non-monetised benefits by 'main affected groups'

The non-monetised benefits are the same as those outlined in policy option 2 with the addition of wider stop and search powers. The wider stop and search powers in this option would enable the police to deal with the threat of UAS misuse more effectively at or near prisons, as covered by offences in the Prison Act 1952, the Prison Act (Northern Ireland) 1953, the Prisons (Scotland) Act 1989 and at common law in Scotland, where currently police do not have adequate powers to stop and search in relation to these offences.

Key assumptions/sensitivities/risks — **Discount rate** 3.5%

Assumptions and sensitivities are the same as those outlined in policy option 2. The costs do not go up as the additional element this policy brings in addition to option 2 cannot be monetised.

BUSINESS ASSESSMENT (Option 3)

Direct impact on business (Equivalent Annual) £m:			**Score for Business Impact Target (qualifying provisions only) £m: N/A**
Costs: 0.1	**Benefits:** 0.0	**Net:** 0.1	N/A

Evidence Base

Introduction

The United Kingdom is a global leader in innovation and emerging technologies, and is at the forefront of a rapidly-developing UAS market. The Government wants to maintain the UK's position as the place for technology companies to build their businesses, to invest in new innovation, and to use science and engineering to drive new technologies to reach their full potential.

The potential economic value of UAS is huge. In their report published in May 2018, "Skies without limits: Drones – Taking the UK's economy to new heights", PwC estimates that the economic benefits of UAS, such as drones, in the UK by 2030 could be as much as £16bn in net cost savings, adding £42bn to GDP, with over 600,000 drone sector jobs.[2] Drones are already being used to great effect. Our emergency and search and rescue services use them to help keep people safe and they reduce risks to people working in hazardous sectors such as the oil and gas industry. They are also being used across many other industries, the public sector and charities to drive more efficient ways of working, to monitor environmental change, to deliver medicines, and to assist infrastructure inspections and construction.

But UAS can also be misused, and the disruption to Gatwick airport operations in December 2018, which affected tens of thousands of passengers in the run up to Christmas, was a stark example of why continued action is required to make sure they are used safely and securely.

The risks posed by UAS cut across a much wider range of areas, in the contexts of public safety and security, such as reported near misses with aircraft, their use to deliver items into prisons, and the potential privacy issues, especially when near schools or private residences.

Over recent years, there have been a number of developments to mitigate the risks posed by UAS:

- Historically, there have been rules in place within the ANO 2016 that apply to certain UAS (small unmanned aircraft); for example, requiring the remote pilot to maintain direct, unaided visual contact with their UAS and to not recklessly or negligently cause or permit it to endanger any person or property.
- In July 2018, the ANO 2016 was amended to insert article 94A which restricted UAS from being flown above 400ft and within 1km of airport boundaries without permission.
- In September 2018, the Government conducted a public consultation on the safe use of drones and proposed several new policies to enhance safety and enable the future market to evolve successfully.[3]
- In March 2019, article 94A was amended so that the protected aerodrome FRZ was expanded further, to provide better protection for the take-off and landing paths of aircraft.[4]
- In December 2020, the ANO 2016 was amended in light of Implementing Regulation (EU) 2019/947 (IR) becoming applicable on 31 December 2020. These amendments removed requirements and offences from the ANO 2016 that had been superseded, and created prohibitions and offences in relation to the requirements of the IR. As this Bill was initially drafted with the ANO 2016 in mind, as it stood in law at the time, it was necessary for the Government to amend the Bill during its passage through Parliament so that it reflects the changes that have been subsequently made to the ANO 2016. For example, some powers in the Bill (as introduced) were attached to offences that have since been revoked.
- A key change to the regulatory framework introduced in the IR is Article 3 which states that all UAS operations shall be performed in the open, specific or certified category as defined in Articles 4,5 and 6 in the IR. Amendments to the ANO 2016 made in December 2020 created criminal offences (articles 265A(2) and articles 265B(2)) for UAS operators and remote pilots respectively failing to operate or fly in accordance with the risk-based framework (see Annex B). That instrument also amended article 94A of the ANO 2016 to remove the requirement for permission to fly above 400ft and to ensure article 94A applies to all UAS operated in the open and specific categories of flight. The former change was made because the regulation of how high a UAS can be flown is now covered in the IR as follows:

- The open category limits all flights to a maximum distance of 120m from the closest point of the earth's surface. Therefore, if a UAS is flown at a greater distance than this, the flight can no longer take place in the open category and will need to happen in the specific category.
- All flights within the specific category are required to be operated within the conditions of an operational authorisation, which must include a 'height' limitation within its text.

- Between 30 November 2019 and 31 December 2020, operators of UAS with a mass of 250g up to and including 20kg were required to register with the Civil Aviation Authority (CAA), and remote pilots were required to take an online safety test. Since the IR became applicable on 31 December 2020, the precise registration and competency testing requirements have changed slightly and the Bill now provides for officers to require information in respect of these.
- In February 2019, the HO's response to its consultation on stop and search included (alongside stop and search powers to support the new offence of possessing a corrosive substance in a public place) a commitment to develop a stop and search power for offences relating to flying a UAS in the FRZ of a protected aerodrome (ANO 2016 article 94A(1)).[5] The consultation response also set out the Government's intention to keep the further expansion of stop and search powers in relation to other UAS offences under review. A cross-Government working group was established, formed of officials from the Department for Transport (DfT), HO, and MoJ, to undertake this work.
- A common theme in the responses to DfT's consultation on drones, which ran from July to September 2018, was the importance of the enforcement of safety legislation.[6] Consequently, in January 2019, ministers announced that new police powers would be introduced to ensure effective enforcement of the rules and provide an immediate deterrent to those who may misuse UAS or otherwise break the law.

Similarly, as part of HO's response to their 2018 consultation on expanding stop and search powers, it was announced that police officers will be able to stop and search people suspected of using UAS above 400ft or within 5km of an airport, which will help them tackle disruption such as that seen at Gatwick airport in December 2018. It was also announced that the Government would work closely with the police to examine whether they have the appropriate powers to respond effectively to other offences involving UAS, including around prisons, taking further legislative action if necessary. Since then, article 94A of the ANO 2016 has been amended, meaning that the height limitations for UAS flights are now set out in the IR (or in consents granted under the IR for higher risk flights). The limit is 120m for flights within the open category but can be varied for flights in the specific or certified category, if agreed as part of the authorisation process for the operation.

Use of the Air Traffic Management and Unmanned Aircraft Bill to allow the police to operate counter-UAS effectors

The Government is using the Bill to amend the Police Act 1997 to allow the police, the CNC and prisons to operate counter-UAS measures at airports, nuclear sites and prisons (only at custodial institutions).

Counter-UAS technologies vary, with some causing interference by disrupting electronic signals between the UAS and the remote pilot, which could be an offence under the Wireless Telegraphy Act 2006. Others, such as net guns and firearms, may amount to unlawful property interference.

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[2] PWC (2018). Skies without limits: Drones-taking the UK's economy to new heights. Retrieved from pwc.co.uk/dronesreport

[3] Department for Transport (2019). Taking Flight: The Future of Drones in the UK: Government Response. (ISBN 978-1-5286-0955-5) Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/771673/future-of-drones-in-uk-consultation-response-web.pdf

[4] Civil Aviation Authority. *Airspace restrictions for unmanned aircraft and drones.* Retrieved from https://www.caa.co.uk/Consumers/Unmanned-aircraft/Our-role/Airspace-restrictions-for-unmanned-aircraft-and-drones/

[5] Home Office (2019). Stop and search: Extending police powers to cover offences relating to unmanned aircraft (drones), laser pointers and corrosive substances. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/780367/ss_consultation_gov_response.pdf

[6] Department for Transport (2019). Taking Flight: The Future of Drones in the UK: Government Response. (ISBN 978-1-5286-0955-5) Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/771673/future-of-drones-in-uk-consultation-response-web.pdf

The Police Act 1997 allows for the authorisation of property and wireless telegraphy interference where officers believe it is necessary to deter or detect serious crime. 'Serious crime' is defined by the Police Act 1997 as an offence which could reasonably expect a custodial sentence of three years or more. As yet, offences in relation to unlawful UAS use have not consistently resulted in custodial sentences of three years or more, or have a maximum penalty that is below three years. They would arguably also not reliably meet the other limbs of the definition and may not therefore be considered a serious crime under the Police Act 1997, hence the proposed amendment is required. The offences to which this amendment will apply are set out in **ANNEX A**.

The Police Act 1997 lists those who are able to grant authorisation of such counter-UAS measures described above. The definition of "authorising officer" will be amended to include prisons and the CNC.

HO have concluded that this aspect of the Bill will have minimal economic implications and will not require an IA or clearance by RPC.

Problem under consideration

UAS misuse cuts across a wide range of areas, and offences can be committed in a broad range of contexts, as set out below. While legislation exists to make various acts or omissions unlawful, due to the newness of the technology and the varied ways in which UAS can be used, it is a complex and cross-cutting challenge. Currently police find it difficult to respond effectively, and have limited powers to investigate and enforce the law on UAS misuse. If a UAS is reported as flying unlawfully it can be really difficult to trace it back to the UAS operator or remote pilot.

The cross-Government working group has identified the following key risk areas involving UAS misuse:

Safety concerns to the public (specifically risks to other aircraft and airports)

On 19 and 20 December 2018 there were multiple sightings of incursions by drones at Gatwick airport. The safety and security implications of these incursions were sufficiently serious to cause air movements to be suspended until 21 December, resulting in major disruption. On 8 January 2019 there were also sightings of a drone at Heathrow airport (although there is no evidence that the two incidents were connected). This led to one runway being closed for an hour.

These incidents were already unlawful and therefore additional substantive restrictions alone are not a sufficient deterrent. Consequently, the response to DfT's consultation set out proposed new powers for the police which would enable them to better investigate incidents and prosecute those committing offences, which is outlined in the preferred option below.

Before 2019, UAS incursions of flight paths were on an upward trend. The number of incidents reported to the Airprox Board (close proximity reporting between aircraft), involving objects believed to be drones, since 2014 have risen from six such events to 29 in 2015, 71 in 2016, 92 in 2017 and 125 in 2018.[7]

The CAA launched a revamped safety campaign in 2016 to encourage UAS remote pilots to have more awareness of the rules and adhere to them. The number of airprox incidents has since fallen with 91 drone incidents reported in 2019 and 27 incidents in 2020 (this figure is likely to have been impacted by the pandemic). Only one prosecution has been made for flying a UAS in an FRZ without permission of air traffic control: on 24 December 2018, officers on patrol saw a man flying a fixed wing, model aeroplane near Heathrow airport. He was arrested and charged later that day.[8]

[7] The UK Airprox Board is sponsored jointly, and funded equally, by the UK Civil Aviation Authority and the UK Military Aviation Authority. Monthly reports of airprox incidents involving UAS are published on their website at: https://www.airproxboard.org.uk/Topical-issues-and-themes/Drones/ These figures do not include non-drone airprox incidents and are subject to change over time as incidents are processed/categorised.

[8] Forest, A. (2019, January, 20) *Heathrow drone: George Rusu charged with flying device near airport days after Gatwick Chaos*. Retrieved from https://www.independent.co.uk/news/uk/crime/heathrow-drone-airport-george-rusu-charged-gatwick-incident-latest-a8737091.html

Broader risks posed by the misuse of UAS

The cross-Government working group's analysis established a clear evidence base of incidents of UAS misuse at or near prisons and other custodial institutions, at military and nuclear sites, at crowded places, and at royal and VIP events. UAS have also been involved in drugs offences and acts of voyeurism, and the potential for terrorists to use UAS is widely reported. Some of this evidence has come from formal reporting channels and some via anecdotal reports; for security reasons, some incident data cannot be made public.

The following examples of incidents that have been reported publicly give some indication of the breadth and scale of drone misuse:

Prisons: In October 2018, seven members of a gang which used drones to fly more than £500,000 worth of drugs into prisons received jail sentences of between three and ten years. The gang was responsible for 55 drone deliveries into prisons around the country between April 2016 and June 2017.[9] In addition, 96 drones were recovered from prisons in 2016 and 73 drones were recovered from prisons in 2017.[10]

Counter terrorism: Academics such as Professor David Dunn[11] of the University of Birmingham and Dr Stephen Prior,[12] a lecturer in unmanned air vehicles at the University of Southampton, have published reports highlighting the potential threat of the use of drones by terrorists.

Military and nuclear sites: In July 2018, EDF Energy reported that Greenpeace flew a drone into their French nuclear power station by way of a protest to demonstrate the site's vulnerability.[13]

Stalking and harassment, hate crimes, voyeurism and criminal damage: In February 2019, a Freedom of Information request filed by Sky News revealed that across 20 of the 45 UK police forces, there had been more than 2,400 reports of incidents involving drones last year, much higher than the 1,700 reports in 2016. They included cases where drones were linked to stalking and harassment, as well as to hate crimes.[14]

Burglary reconnaissance: Police have received numerous concerns from members of the public reporting the use of drones to check houses with a view to planning burglaries.[15]

Rationale for intervention

Police have informed us of the difficulties that they face and in what areas they need to have enhanced powers to fully be able to pursue offenders. This will help to ensure that existing and future regulations regarding UAS are effectively implemented and have the intended policy outcomes. The powers will provide a disincentive for UAS misuse as they may increase the probability of someone being caught.

Extending powers to enable the police to effectively respond to UAS misuse incidents (as illustrated in the 'new police powers' section of ANNEX A)

As misuse of UAS and incident reports have increased, challenges have emerged in ensuring effective enforcement and pursuing investigations in practice.

An example of one such operational gap is that on 30 November 2019, new requirements for registration and pilot competency testing came into force. These have changed slightly since the IR became

[9] BBC (2018). *Gang who flew drones carrying drugs into prisons jailed*. Retrieved from https://www.bbc.co.uk/news/uk-england-45980560 The £500,000 has been calculated using data from the case.

[10] Steward, R. (2018) *Prisons: Unmanned Air Vehicles: Written Question 198196.* Retrieved from: https://www.parliament.uk/business/publications/written-questions-answers-statements/written-question/Commons/2018-12-03/198196/

[11] Hastings Dunn,D. (2017). *Small drones and the use of chemical weapons as a terrorist threat.* Retrieved from https://www.birmingham.ac.uk/research/perspective/small-drones-chemical-weapons-terrorist-threat.aspx

[12] Prior, S. (2018). What does the future hold for drones in security and defence? Government Europa Quarterly, Oct 2018(27), 1-4.

[13] De Clercq,G. (2018, July, 3) *Greenpeace crashes Superman-shaped drone into French nuclear plant.* Retrieved from https://uk.reuters.com/article/uk-france-nuclear-greenpeace/greenpeace-crashes-superman-shaped-drone-into-french-nuclear-plant-idUKKBN1JT17G

[14] Boland, H (2019, February, 23) *Police say drones being used to vandalise homes and stalk victims, as reports of incidents surge.* Retrieved from https://www.telegraph.co.uk/technology/2019/02/23/police-say-drones-used-vandalise-homes-stalk-victims-reports/

[15] Brown, R. (2019, June, 20) *Fears burglars are using drones to case homes-as drone reports to police* rockets. Retrieved from https://www.cambridge-news.co.uk/news/cambridge-news/burglars-drones-homes-reports-rocket-14785783.

applicable on 31 December 2020. However, currently the police do not have the legal powers to require a UAS operator or remote pilot to produce the necessary documents to prove that they are registered, or have completed the necessary competency tests, making investigation and enforcement of this offence unnecessarily difficult.

Similarly, the police do not currently have the powers to enter and search premises under warrant and seize UAS for most offences involving UAS. For example, if a remote pilot is suspected of breaching the ANO 2016 by flying in a residential area without a relevant consent and an officer were to reasonably believe a UAS was on a particular premises, they would have no powers to apply for a warrant to search the premises to find the UAS and therefore no action can be taken.

By way of a further example, even if an officer has reasonable grounds for suspecting that an offence has been committed with a UAS, they have no power to instruct the remote pilot to land it. This power would have the benefit of putting an immediate end to the offending flight, which is particularly important where continued flight might endanger safety, security or privacy. Once a UAS is grounded, the constable can then proceed to investigating the matter further and establish the full facts of what has happened.

In the Government's 2018 consultation "Taking Flight: The Future of Drones in the UK", specific new powers were proposed to enable the police to better enforce UAS misuse and clamp down on malicious behaviour.[16] This followed feedback from the 2016/17 consultation "Unlocking the UK's high tech economy: consultation on the safe use of drones in the UK" that the police were lacking sufficient powers.[17] These powers are particularly crucial, given that the majority of airprox incidents are as a result of drone flyers breaking current laws.

We also propose to give the police the power to issue FPNs for less serious UAS-related offences, providing immediate and effective enforcement which will act as a deterrent to offenders and reduce potential future pressure on magistrates' courts, particularly in relation to registration and competency requirements.

Stop and Search Powers (as illustrated in the 'new stop and search powers' section of ANNEX A)

In most cases of misuse set out in the previous section, the police do not have adequate powers to stop and search for UAS offences. As a result, in almost all of these cases, if an individual or group of individuals is in the likely launch area, but a UAS is not visible, the attending officer would not be able to stop and search to allay or confirm their suspicion. The Bill will enable them to do so and to seize items where the requirements of one of Conditions A, B or C of paragraph 2 in Schedule 8 are met. Without this power, they would either need to rely on powers of arrest (which may not apply), would need the individual to volunteer the item(s), or would not be able to take any immediate action.

The following case studies are provided to further illustrate why Government intervention is necessary:

- In January 2019, flights were disrupted at Birmingham Airport due to a drone being used in parkland at the perimeter of the airport. The police helicopter was deployed, the crew saw two parked vehicles, and local police attended. The vehicles started to drive away but were stopped. Enquiries at the scene revealed one of the vehicles was stolen and had been used in a burglary with a firearm. The drone was found in the boot of one of the vehicles. Ten people were arrested in connection with the stolen motor vehicle and burglary, and enquiries made into the drone.[18]

  If the vehicle had been lawfully registered there would have been no power to search and the drone would not have been seized.

- In 2015, Nigel Wilson flew a drone over football stadiums on match days, the Houses of Parliament, Buckingham Palace, the Shard and HMS Belfast. The case was the first drones case dealt with by the Crown Prosecution Service (CPS). On the day Wilson was caught, there were no witnesses to him flying the drone. The stop was intelligence led and he voluntarily took the drone out of the car.

[16] Department for Transport (2019). Taking Flight: The Future of Drones in the UK: Government Response. (ISBN 978-1-5286-0955-5) Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/771673/future-of-drones-in-uk-consultation-response-web.pdf

[17] Department for Transport. (2017). Unlocking the UK's High Tech Economy: Consultation on the Safe Use of Drones in the UK: Government response. Retrieved from https://www.gov.uk/government/consultations/benefits-of-drones-to-the-uk-economy

[18] Criminal case where readout of the hearing is not publically available. Information provided through consultation with Ministry of Justice.

An officer seized the drone using common law but did not feel completely comfortable doing so. Wilson pleaded guilty to seven offences contrary to the ANO 2016 and was fined £1,800. He was also ordered to pay £600 in costs and banned from purchasing, owning or flying any drones for two years.[19]

Had Wilson not voluntarily taken the drone out of the car, the responding officers would not have been able to search the car and seize the drone. Even if he had been arrested, a search of the car could not have been carried out because search of vehicles and property after an arrest is only possible for indictable offences.

- Following the examination of a drone recovered from HMP Manchester in July 2016, a male was charged and convicted of offences including conveying list A and B articles into prison and possession of controlled drugs with intent to supply, as well as a number of other offences. He received a total of four years imprisonment.[20]

  Stop and search can only currently be used if terrorism, drugs, offensive weapons, firearms or criminal damage are suspected. They do not apply when the conveyance is of items, other than drugs and weapons, that pose harm inside prisons and could lead to criminal prosecution e.g. mobile phones and accessories, tools, tobacco etc.

Policy objective

The policy objective is enforcing existing UAS legislation, ultimately acting as a disincentive to misuse, which will increase safety and privacy for the population as a whole and build public acceptance of legitimate UAS use which has the potential to increase safety and efficiency across the economy. The Air Traffic Management and Unmanned Aircraft Bill will help to deliver this by:

Extending powers to enable the police to effectively respond to UAS misuse incidents

By increasing the powers available to the police, we hope to see more frequent prosecutions when non-compliance is identified and, in combination with the impact of other measures, a reduction in the number of incidents occurring.

The overall objective is to reinforce the importance of compliance and increase the deterrent effect, to encourage current non-compliant and/or reckless UAS remote pilots to comply with the law.

Creating fixed penalty notices (FPNs)

Creating FPNs for the offences set out in the previous section, would serve to:

- make the existing regime simpler to enforce for the police;
- make the regime easier for the public to understand the procedure and their rights in receiving, paying and/or challenging an FPN, given that the procedure will be the same as for other FPNs.

It would also ensure coherence with other FPN regimes (such as those under the Anti-social Behaviour, Crime and Policing Act 2014, and the Clean Neighbourhoods and Environments Act 2005).

Granting stop and search powers

The recommended proposal would provide the police with the power to search any person or vehicle when there are reasonable grounds for suspecting that they will find a UAS, and/or any article associated with a UAS which has been used in a way that contravenes certain offences set out in the ANO 2016, the Prison Act 1952, the Prison Act (Northern Ireland) 1953 and the Prisons (Scotland) Act 1989, as well as common law offences in Scotland. For example, flying a UAS within 5km of a national

[19] Gayle, D (2015, September, 15). *Man fined for flying drone at football matches and Buckingham Palace.* Retrieved from https://www.theguardian.com/technology/2015/sep/15/man-fined-in-first-uk-drone-conviction - Criminal case where readout of the hearing is not publically available. Information provided through consultation with Ministry of Justice.

[20] Bardsley, A (2016, December, 20) *Ex-con was 'groomed' by inmates to use drone to smuggle drugs into Strangeways.* Retrieved from https://www.manchestereveningnews.co.uk/news/greater-manchester-news/ex-con-groomed-inmates-use-12350127 - Criminal case where readout of the hearing is not publically available. Information provided through consultation with Ministry of Justice.

licensed aerodrome boundary or above 120m from the closest point of the surface of the earth within the open category or above the pre-agreed height limitation for the specifc and certified categories where it could pose a danger to manned aircraft. Also, flying a UAS above or within the boundaries of a prison or using a UAS to fly mobile phones, tools or tobacco into a prison. These types of offences are currently outside the existing stop and search powers (for example, as set out in section 1 of the Police and Criminal Evidence Act 1984 (PACE 1984) or the Misuse of Drugs Act 1971).

Description of options considered (including status-quo)

Please refer to **ANNEX A**, which summarises the content of the UAS provisions of the Bill and illustrates what would be delivered by Options 2 and 3.

Option 1: Do nothing

Fundamentally, the operational gaps identified by the police and evaluated through the work of the cross-Government working group would remain unaddressed, missing the opportunity to improve the ability of the police to tackle incidents of UAS misuse.

Between 30 November 2019 and 31 December 2020, operators of UAS with a mass of 250g up to and including 20kg were required to register and remote pilots were required to complete an online competency test. On 31 December 2020, the circumstances in which registration and competency testing are required changed slightly due to the IR becoming applicable.[21] UAS operators and remote pilots will be much less likely to comply with these new requirements if police do not have the power to require the production of registration and testing documents.

Option 2: Use the Air Traffic Management and Unmanned Aircraft Bill to deliver the minimum public commitments ministers have made

A) Create new powers for the police so that they can effectively intervene and respond to UAS misuse incidents and investigate those who are suspected of misusing UAS. This could be achieved by granting the police:

i. *The power to require a UAS to be grounded*
Required for the police to intervene in situations where they believe an offence has been, is, or is likely to be, committed by the UAS in question.

ii. *The powers of entry into and search of a property using a warrant, and seizure relating to UAS*
Required for the effective investigation and prosecution of offences which can be committed with a UAS, which can either be dangerous or unsafe, or be the beginnings of activity that leads to further crime. The police are currently hamstrung in this respect.

iii. *The power to issue fixed penalties for certain offences relating to UAS*
To set an effective deterrent and allow on-the-spot enforcement.

iv. *Powers relating to the ANO 2016*
The police will be able to require the production of registration and testing documents, relevant consents and exemptions, the identity of the UAS operator or remote pilot, and any other information, evidence or documentation that is specified in regulations by the Secretary of State.

B) Grant **stop and search powers** to the police to improve their ability to respond to the offence of:

[21] The ANO 2016 has now been amended to include the following definitions:
''unmanned aircraft system' ('UAS') means an unmanned aircraft and the equipment to control it remotely;
''unmanned aircraft system operator' ('UAS operator') means any person operating or intending to operate one or more UAS';
''remote pilot' means an individual responsible for safely conducting the flight of an unmanned aircraft by operating its flight controls, either manually or, when the unmanned aircraft flies automatically, by monitoring its course and remaining able to intervene and change the course at any time'.

i. *Flying a UAS within a protected aerodrome FRZ or flying above the height restrictions set out in the IR.*
This could be achieved by attaching stop and search powers to ANO 2016 article 94A(1), article 265A(2) and article 265B(2).

This would deliver ministers' public commitments but could miss an opportunity to achieve more.

Option 3: [Recommended] In addition to the above, also use the Air Traffic Management and Unmanned Aircraft Bill as a mechanism to grant stop and search powers to the police to improve their ability to deter and respond to a wider range of UAS offences set out in the ANO 2016, and the use of UAS to convey items into prisons.

In addition to creating the powers set out in Option 2, we recommend that stop and search powers are also attached to the following offences:

- **ANO 2016 article 239 – which prohibits UAS from being flown in a restricted or prohibited area in contravention of the rules made by the Secretary of State.**

This could be applied to provide additional protection to nuclear sites, crowded places, and royal or VIP visits and events.

- **ANO 2016 article 240 – which prohibits a UAS from being flown recklessly or negligently in a manner likely to endanger an aircraft, or any person in an aircraft.**

This would protect aircraft that do not follow traditional flight paths or could be flying lower than 120m and outside an FRZ e.g. police and ambulance helicopters.

- **ANO 2016 article 265B(3) – which makes it an offence for a remote pilot to contravene certain requirements imposed by the IR.**

This would improve the safety of UAS flights by enabling the police to stop and search a remote pilot who did not abide by certain requirements which, if ignored, could compromise the safety of an operation.

- **ANO 2016 article 265E(7) – which makes it an offence for a UAS operator or remote pilot of a tethered small unmanned aircraft to contravene certain requirements.**

This would improve the safety of operations by enabling the police to stop and search a UAS operator or remote pilot who did not abide by these requirements, and could potentially cause a safety hazard.

- **Prison Act 1952 s39, Prison Act (Northern Ireland) 1953 s29(1) and s33, and common law in Scotland – which make it an offence to convey anything into a prison or to a prisoner that could be used to facilitate the escape of any prisoner - and Prison Act 1952 s40B, s40C and s40CB, Prison Act (Northern Ireland) 1953 s34A and 34B, and Prisons (Scotland) Act 1989 s41 and 41ZA - which make it an offence to convey items into or out of prisons. All of these offences could be committed using a UAS.**

Monetised and non-monetised costs and benefits of each option (including administrative burden)

For this IA we have monetised the on-going cost to commercial UAS operators, remote pilots and police as a result of the compliance checks. The familiarisation cost to the police has not been monetised as these powers would be communicated to police officers through existing mechanisms. These costs would be small and therefore it would be disproportionate to monetise them. For non-commercial UAS operators and remote pilots we have provided quantified estimates for 2019 to provide a sense of scale of what the cost could be on them. We do not have robust estimates of future numbers of non-commercial UAS operators and remote pilots so these have not been included in the total cost (see risk and assumptions section below). All costs are estimated for a standard 10 year appraisal period in 2019 prices from 2019 to 2029. The scenarios used in this analysis are based on a number of assumptions (outlined below). Given the uncertainty regarding the total number of stops likely to take place per year,

we have used a fairly pessimistic scenario for the maximum number of checks per annum, setting this at two checks per commercial UAS operator or remote pilot per year. We are quite confident that the total number of checks per year will fall below this number; therefore – although it is not clear how many stops will take place per year in practice – this upper bound sensitivity helps provide a maximum order of magnitude of the impact of this change.

We have identified and described the benefits of these powers. However, due to the nature of these powers and the inability to attribute these positive impacts directly to the powers, they have not been monetised. These powers will improve enforcement of existing and forthcoming regulations.

FPNs

This power provides the police with the ability to issue an FPN. The charge set, the impacts of this charge and how this charge may change in the future will be analysed in any IA prepared alongside relevant secondary legislation. Some of the impacts on Government and business as a result of these powers are outlined below.

Cost to Government:

We have not included the familiarisation cost to the police in our cost benefit analysis as it is in coherence with other FPN regimes (such as those under the Anti-social Behaviour, Crime and Policing Act 2014, and the Clean Neighbourhoods and Environment Act 2005). This will ensure that it is simpler to enforce as the police already have established procedures to enforce these Acts and therefore including familiarisation costs would lead to double counting. The cost to police to issue an FPN has not been monetised as this policy will be analysed further under secondary legislation.

Those FPNs that are accepted and then subsequently not paid, will result in the police registering the unpaid FPNs with the courts. The enforcement costs for the CJS, including the CPS, magistrates' courts, Youth Justice system and Legal Aid have not been quantified at this stage due to the lack of data on court cases under the ANO 2016 and the level of uncertainty regarding how many FPNs will be issued, how many FPNs are not paid within the 21-day response period and how many individuals will request a hearing in respect of an FPN offence. The impact on the CJS of FPNs will be explored through IAs accompanying relevant secondary legislation.

Cost to business and society:

According to MoJ practices, FPNs should apply zero weight to offenders so that the gains to offending are not counted as a benefit and the associated punishment is not treated as a cost to the individual. It is assumed that offenders experience no inconvenience from the enforcement of the law, aside from the charge, as enforcement is needed to ensure further safety of the public. As FPNs apply to a range of offences, the level of fine for each offence will likely be different among offences, depending on the nature of offence. Therefore, further analysis on the different level of FPN amounts will be explored through the IAs accompanying the secondary legislation that these powers enable.

The level of charge for the FPNs can change in the future in line with inflation and whether the FPN is effective in reducing UAS misuse. Any changes to FPNs would need to be made through secondary legislation. This means that the nominal cost of the FPN, the amount in GBP which the offender will pay, would be constant over the appraisal period unless specified through secondary legislation. Due to the lack of data on court cases under the ANO 2016, we would not be able to provide an estimate of how many cases could be issued an FPN in the future rather than go through the court system.

We have not included the familiarisation cost to the public in our cost benefit analysis as the FPNs will be for offences that are part of existing secondary legislation or part of this Bill (which will be used to enforce that secondary legislation) and therefore monetising this cost would lead to double counting.

Benefits:

The benefits of introducing an FPN regime have not been monetised. The power ensures an effective and immediate deterrent where a specific offence has been committed and reduces pressure on the

magistrates' court for less serious UAS offences. The power to issue an FPN will also increase the opportunity for officers to engage and educate the public about the importance of flying a UAS safely.

Stop and search powers

Cost to Government:

The unit cost of conducting a stop and search is outlined below and is based on time taken to conduct a stop and search multiplied by the cost to the police in carrying it out. The cost to police to conduct stop and searches across the 10 year appraisal period has not been monetised due to the lack of clarity on how many stop and searches would take place in a given year. We will therefore continue to review this policy on an on-going basis. The policy is likely to affect very few people as we assume 100% compliance with the existing and forthcoming legislation, and stop and searches being intelligence-led and not targeted at the general public. Due to this, assuming a number of UAS operators and remote pilots would be stopped and searched each year would not be reasonable, as these checks would not be on a regular basis like the compliance checks. The familiarisation cost to the police has not been included as they are already familiar with the rules and guidance relating to other stop and search legislation, and therefore any additional cost would be marginal. In addition, familiarisation for existing stop and search legislation should not be estimated here as it would lead to double counting. Due to this, the cost of conducting a stop and search and the familiarisation cost to police, as a result of these additional powers, has not been included in the cost benefit analysis.

Table 1: Unit cost of a single stop and search to Government

	Time to conduct a search (mins)	Time to conduct data input duties (mins)	Total time to conduct a single stop and search (mins)[22]	Number of officers needed to conduct a stop and search	Hourly earnings for a police constable including the wage uplift (£)	Total cost of a single stop and search to police
Low	5	10	15	1.5	40.61	15.23
Central	6	10	16	1.5	40.61	16.25
High	7	10	17	1.5	40.61	17.26

The employment cost for a police constable is used in the calculations of time spent by police to carry out the search. The hourly cost for a police constable has been sourced from the National Policing Guidelines on Charging for Police Services (2018).[23] An uplift of 20.9% has been applied to represent the non-wage labour cost to police, such as national insurance and employer pension contributions in each case. Wages are grown in real terms over time by projected GDP per capita growth.[24] The average time taken to conduct a stop and search is based on estimates from the Flanagan Review of Policing (2008).[25] This is split between the time taken to conduct the search and the time taken to conduct data

[22] Flanagan, R. (2008, February, 1) *Flanagan Review of policing.* Retrieved from https://www.justiceinspectorates.gov.uk/hmicfrs/media/flanagan-review-of-policing-20080201.pdf. This is from the Flanagan Review of Policing (2008) on the average time to conduct an actual stop and search.

[23] Waters, L (2018, April) *National Policing Guidelines on Charging for Police Services.* Retrieved from https://www.npcc.police.uk/documents/finance/2018/Charging%20for%20Police%20Services_July_2018.pdf

[24] Office for Budget Responsibility (2017, November). Retrieved from http://cdn.budgetresponsibility.org.uk/Nov2017EFOwebversion-2.pdf, Up to 2022 and WebTAG 2022-2066 from OBR FSR Jan 17, table 1.1, published 17/01/2017 (adjustment made to convert from FY to CY), from 2023- 2027

[25] This does not include the time it takes police to perform data input duties.

input duties. It is assumed that 1.5 police officers will be needed to conduct a single stop and search as, in some cases, there will be one officer and, at other times, two.[26]

There may be some additional administrative costs incurred as a result of the proposed changes; however, they are not likely to be large and can be managed within existing police budgets.

By extending police stop and search powers for UAS offences, we expect there to be no change to tribunals but a potential increase, although not significant, in the volume of cases to courts.

The current statistics suggest approximately 200 drone incursions had occurred in the year 2017-18 around Critical National Infrastructure (CNI). We recognise that it is highly likely that the same individual would have been responsible for more than one drone incursion so not every case will result in stop and search. However, as a worst-case scenario and if 200 incidents (as identified from existing data) would lead to stop and search with 17% resulting in arrest (17% of stop and search cases in general led to an arrest as identified in the HO Police Powers and Procedures, England and Wales, year ending 31 March 2018, report), we expect approximately 34 individuals to be arrested because of stop and search nationwide across all 43 police forces in England and Wales. This will therefore increase cases going through the court system for UAS related offences as a result of this specific policy.

We have not monetised the impacts of stop and search on the CJS because of the high level of uncertainty about the number and type of arrests, charges and convictions that might result from this policy. However, CJS impacts will be assessed through regular dialogue with MoJ and will be explored, as relevant, through assessments accompanying any secondary legislation that might be put in place, such as regulations relating to FPNs.

Cost to business and society:

The introduction of stop and search powers regarding UAS will not impose additional costs on business as it will only impose a cost on those who will be committing an offence highlighted above. The policy is likely to affect very few people directly as it would be used in situations where there were grounds for reasonable suspicion that an offence had taken place. With the lack of clarity on how many businesses and non-commercial UAS operators and remote pilots will be stopped and searched, the impacts of this policy will be reviewed on an on-going basis with continued dialogue with police and industry.

Benefits:

The new stop and search powers would enable the police to deal with the threat of UAS misuse more effectively in areas where currently police do not have adequate powers to stop and search in relation to such offences. Stop and search may also deter individuals from using a UAS to break the law in the first place, mitigating any potential harm. Once the UAS is in the air, in many of the misuse scenarios, the harm or disruption is already likely to have occurred.

Compliance checks

Cost to Government:

Cost to Government in terms of time taken to conduct a compliance check has been monetised and is considered as an on-going cost. This is different to the stop and search powers, which will be targeted at specific offenders, as these compliance checks would occur more frequently and may not be intelligence-led. Police officers on the ground would need to investigate the matter further which could be in the form of requiring registration documents or an operational authorisation, or an inspection of a UAS to be conducted. Due to the range of powers, we have assumed in our central case scenario that it will take six minutes for the police to carry out a search (five and seven minutes under low and high scenarios respectively). This is based on estimates from the Flanagan Review of Policing (2008) on the average time to conduct an actual stop and search.[27] This excludes the time taken to conduct data input duties due to police not having to fill in the data entries for these additional powers.

The employment cost for a police constable is used in the calculations of time spent by police to carry out the search. The hourly cost for a police constable has been sourced from the National Policing

[26] Assumption given by police.

[27] This does not include the time it takes police to perform data input duties.

Guidelines on Charging for Police Services (2018).[28] An uplift of 20.9% has been applied to represent non-wage labour cost to police such as national insurance and employer pension contributions in each case. Wages are grown in real terms over time by projected GDP per capita growth which represents an increase in productivity and therefore opportunity cost.[29]

Information on how many UAS could be grounded or how many UAS operators and remote pilots could be checked is not available; therefore, the unit cost and the forecasts for the number of commercial UAS operators and remote pilots (see risk section below) is used to construct some scenario analysis to give a sense of scale of the potential cost to Government and business. For leisure UAS operators and remote pilots we do not have a historical dataset on which to base forecasts of UAS operators and remote pilots as we do for commercial ones. We are therefore unable to provide quantified estimates for those impacts.

Our central cost estimates show the scale of the impact of the policy if every commercial UAS operator or remote pilot is stopped once in a year, with the low scenario assuming one in two commercial UAS operators or remote pilots are stopped once every year and the high scenario assuming that each commercial UAS operator or remote pilot is stopped twice a year. Due to uncertainty around our estimated number of UAS operators and remote pilots, the frequency and location of their UAS use and the proportion of UAS operators and remote pilots who will be affected, these figures are presented to give a sense of scale rather than a precise estimate of the cost. Table 1 below outlines the assumptions used in the scenarios. We have assumed under each scenario that 1.5 police officers will be investigating the matter further which has been confirmed with a police contact.

The cost to Government if non-commercial UAS operators and remote pilots are stopped has not been included in the final cost due to data limitations (outlined in the risk and assumption section below). However, in order to provide a sense of scale of what the additional cost to Government could be if non-commercial UAS operators and remote pilots were stopped, Table 3 outlines the cost to Government in 2019.

The cost to Government to search premises has not been monetised due to lack of evidence regarding the average time it would take a police officer to search a premises.

In addition to police costs as a result of compliance checks, there is a realistic possibility of increased costs to CJS agencies as a result of an increase in expected proceedings. We would expect an increase in court capacity costs as cases go through the magistrates' court, including possible hearings relating to offending for which a FPN has been issued (if, through secondary legislation, it is decided that FPNs are appropriate for any of these offences). Given the level of uncertainty regarding how many arrests will be made and how many FPNs will be challenged, we are unable to quantify the increase in court capacity costs. We may expect an increase in Legal Aid costs; however, this again will be dependent on how many people apply and whether Legal Aid is available for summary offences. The increase in costs will be explored, as relevant, through IAs accompanying secondary legislation for the level of FPN charges.

We have not monetised the impacts of compliance checks on the CJS because of the high level of uncertainty about the number and type of arrests, charges and convictions that might result from this policy. However, CJS impacts will be assessed through regular dialogue with MoJ and explored through IAs accompanying relevant secondary legislation.

Table 1 Assumptions used under each scenario

Scenarios	UK commercial UAS operators or remote pilots (2019)[30]	UK commercial UAS operators or remote pilots (2029)[31]	Hourly earnings for a police constable (£)	Time taken to conduct search (mins)
Low	5700	17800	40.61	5
Central	5700	30200	40.61	6

[28] Waters, L (2018, April) *National Policing Guidelines on Charging for Police Services.* Retrieved from https://www.npcc.police.uk/documents/finance/2018/Charging%20for%20Police%20Services_July_2018.pdf

[29] Office for Budget Responsibility (2017, November). Retrieved from http://cdn.budgetresponsibility.org.uk/Nov2017EFOwebversion-2.pdf, Up to 2022 and WebTAG 2022-2066 from OBR FSR Jan 17, table 1.1, published 17/01/2017 (adjustment made to convert from FY to CY), from 2023- 2027

[30] See risk and assumption section to see how these figures are calculated.

[31] See risk and assumption section to see how these figures are calculated.

High	5700	30200	40.61	7

Table 3 Overview of the total cost to Government in introducing powers to conduct compliance checks

Scenarios	Cost to conduct a single search (£)	Number of police officers needed to conduct checks in 2019	Number of police officers needed to conduct checks in 2029	Cost to Government in 2019	Cost to Government in 2029	Total cost to Government across the 10 year appraisal period
Low	3.38	4275	13350	28,937	108,073	419,853
Central	4.06	8550	45300	34,725	220,032	1,247,066
High	4.74	17100	90600	40,512	256,704	2,909,820

Table 4 Overview of the total cost to Government in introducing powers to conduct compliance checks on non-commercial UAS operators and remote pilots

Scenarios	Cost to conduct a single search (£)	UK non-commercial UAS operators or remote pilots (2019)[32]	Number of police officers needed to conduct checks in 2019	Cost to Government in 2019
Low	3.38	51400	77100	260,942
Central	4.06	60700	91050	369,786
High	4.74	60700	91050	431,417

Cost to commercial UAS operators and remote pilots:

The cost to commercial UAS operators and remote pilots in terms of loss of business time whilst police are looking into the issue has been monetised and is considered as an on-going cost. Firm level costs are calculated by multiplying the time cost (six minutes in the central scenario) by the 2018 Annual Survey of Hours and Earnings (ASHE) estimate of a £12.78 median hourly wage for all workers.[33] Using such a general wage value represents the diverse nature of UAS using firms throughout the economy, ranging from sole trader photographers, to multinational oil companies, part time and full-time remote pilots and a range of operations throughout the country in urban and rural settings. High (£19.41) and low (£9.19) estimates represent the top and bottom 25% of a worker's hourly wage. This wide range reflects uncertainty. Wages are grown in real terms over time by projected GDP per capita growth, to represent productivity increases and real opportunity cost.[34] Costs also include a 20.9% non-wage staff cost which is not inflated by GDP growth. It is assumed that a minimum of two people will be carrying out the UAS flight, one person who would be the pilot and the second person keeping an eye on the UAS to ensure it is not going beyond visual line of sight under all scenarios. In reality there would be cases where only UAS remote pilots would be investigated; however, with no information on the type of offences that could be committed, we have assumed that two people would be involved in the UAS operation.

Information on how many UAS could be grounded or how many UAS operators and remote pilots could be checked is not available; therefore, the firm level cost and DfT's scenarios for the future number of commercial UAS operators and remote pilots (see risk section below) is used to conduct a scenario analysis to give a sense of scale of the potential cost to business. Due to these various evidence gaps,

[32] See risk and assumption section to see how these figures are calculated.

[33] ASHE (2018) *Earnings and hours worked, occupation by two-digit SOC: ASHE Table 2.* Retrieved from https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/datasets/occupation2digitsocashetable2.

[34] Office for Budget Responsibility (2017, November). Retrieved from http://cdn.budgetresponsibility.org.uk/Nov2017EFOwebversion-2.pdf, Up to 2022 and WebTAG 2022-2066 from OBR FSR Jan 17, table 1.1, published 17/01/2017 (adjustment made to convert from FY to CY), from 2023- 2027

these estimates should not be taken as point estimates but instead give a sense of scale of the potential impacts. The table below outlines the assumptions used in the scenarios.

The cost to business as a result of premises being searched has not been monetised due to lack of evidence regarding the average time it would take a police officer to search a premises. We have therefore not been able to quantify how much business time will be lost if premises were searched.

Table 5 Assumptions used under each scenario

Scenarios	UK commercial UAS operators or remote pilots (2019)	UK commercial UAS operators or remote pilots (2029)	Hourly earnings (£)	Time taken to conduct search (mins)	Number of people involved during unmanned aircraft operation
Low	5700	17800	25th percentile	5	2
Central	5700	30200	Median	6	2
High	5700	30200	75th percentile	7	2

Table 6 Overview of the total cost to business in introducing powers to conduct compliance checks

	Number of people involved in a single check in 2019	Cost to conduct a single search to business (£)[35]	Time to conduct search (mins)	Total cost to Business in 2019 (£)	Total cost to Business over the 10 year appraisal period (£)
Low	11400	0.94	5	10,738	155,802
Central	11400	1.57	6	17,920	643,549
High	11400	2.79	7	31,752	2,280,622

Cost to non-commercial UAS operators and remote pilots:

Cost to non-commercial UAS operators and remote pilots has not been monetised. This is due to not having a robust methodology with which to estimate growth in the number of non-commercial UAS operators and remote pilots, so we have not been able to monetise the impacts on them. The figures for 2019 have been derived by using the commercial to leisure user ratio from the US UAS registration scheme. The UK figures have been based on the assumption that the ratio is comparable to the market in the UK (further details on this limitation can be found in the section below). The ratio between commercial and leisure UAS operators and remote pilots would not be constant throughout the appraisal period as they have different growth rates. Therefore, there will be further cost to non-commercial UAS operators and remote pilots; however, without further evidence on how the non-commercial market will grow in the next 10 years, we are unable to monetise the cost.

Our central cost estimates show the scale of the impact of the policy if every non-commercial UAS operator or remote pilot is stopped once in a year, with the low scenario assuming one in two non-commercial UAS operators or remote pilots are stopped once every year and the high scenario assuming that each non-commercial UAS operator or remote pilot is stopped twice a year. Due to uncertainty regarding our estimated number of UAS operators and remote pilots, the frequency and location of their UAS use and the proportion of those who will be affected, it is unclear how good the

[35] This is the cost to conduct a single search and is dependent on the time to conduct a search. Therefore in the central scenario it would cost £1.57 to conduct a six minute search.

estimates of cost are. These figures are therefore presented to give a sense of scale rather than attempting to be a precise estimate of the cost.

Table 7: Overview of the total cost to non-commercial UAS operators and remote pilots in introducing powers to conduct compliance checks in 2019

	UK non-commercial UAS operators and remote pilots (2019)	Value of non-working time per hour (£)	Time taken to conduct search (mins)	Number of people involved during drone operation	Cost to non-commercial UAS operators and remote pilots for a single search (£)	Total cost to non-commercial UAS operators and remote pilots in 2019 (£)
Low	51400	5.04	5	1	0.42	10,794
Central	60700	5.04	6	1	0.50	30,593
High	60700	5.04	7	1	0.59	71,383

To provide a sense of scale on what the costs would look like for the first year on non-commercial UAS operators or remote pilots, we have assumed that each would be stopped once every year. The costs are calculated by multiplying the time cost (six minutes in central scenario) by the value of non-working time at 2019 prices from Web TAG.[36] We have assumed that one person would be involved in the operation of the UAS: the person flying the UAS.

Benefits:

Giving the police the power to ground UAS would have the benefit of putting an immediate end to offending flights that could potentially endanger safety, security and privacy.

Rationale and evidence that justify the level of analysis used in the IA (proportionality approach)

Risks and assumptions

There are a series of assumptions that drive our estimates of the cost to business and Government.

Scenarios

The scenarios outlined above are based on a number of assumptions outlined below. Due to the lack of evidence on how many searches will be conducted, we are not able state whether any of these scenarios are realistic, but are presented in order to provide a scenario of what the impact to business and Government could be.

Stop and search timings

The stop and search timings used in the analysis is based on estimates from the Flanagan Review of Policing (2008) on the average time it takes to conduct an actual stop and search. There have been improvements in data requirements and in the technology that police use in order to record data from a search. However, with a lack of clarity on how widely used this technology is across the police force, these time savings have not been considered.[37]

Forecast on the number of UAS operators and remote pilots

The forecasts used extrapolate the growth observed in CAA commercial UAS registrations, from December 2014 to November 2017, using a simple quadratic form. Extrapolating trends assumes that the future will follow similar rates of change (including changes in rates of change) as existing data.

[36] Department for Transport (2018, November) *Tag Data Book.* Retrieved from https://www.gov.uk/government/publications/tag-data-book

[37] Home Office (2009, September, 20) *Impact assessment of reducing the Statutory Recording Requirements for Stop and Search.* Retrieved from https://www.legislation.gov.uk/ukia/2009/251/pdfs/ukia_20090251_en.pdf - Timing savings used from this assessment.

Given the emerging nature of UAS technology, it is unclear whether the years 2014-2017 are part of a trend or are structurally different to the growth rates we will see in the future.

We introduce a market saturation point using the Single European Sky ATM Research (SESAR) 2016 European Drone Outlook Report (2016), which suggests growth is expected to significantly slow in 2030 for commercial use.[38] This means that, for our appraisal period, we see continued increase in commercial UAS use and increasing costs in each year.

As highlighted above, the number of leisure UAS operators and remote pilots has not been included in the net present value, but figures for 2019 have been included in the analysis to provide a sense of scale of what the costs could be (table 5).These figures have been calculated by using the US UAS registration scheme database and the ratio of commercial to non-commercial users in order to calculate the number of non-commercial ones in the UK. This is based on the assumption that this ratio is comparable to the UK UAS market. To test this assumption we looked at other technologies, such as smartphones, where we see similar levels of penetration, with the UK having previously had a higher level than the US.[39] It is also important to note that the US UAS database collected registrations at different units for commercial and non-commercial users (registration per UAS at a commercial level and registration per user at a non-commercial level), and used the assumption that each non-commercial user would have 1.5 UAS in order to make both measures comparable.[40]

Given the emerging nature of UAS technology, we have not been able to forecast the number of non-commercial UAS operators and remote pilots. This is because the growth rate for non-commercial UAS operators and remote pilots is different to that of commercial ones and therefore it is not clear what the future relationship would look like. Additionally, we do not have enough historical data to do independent forecasts. Further information can be found in our consultation document.[41]

Familiarisation cost to police

We have not monetised the familiarisation cost to the police as a result of this policy, as we have assumed that these powers will be communicated through existing mechanisms. These costs would be small and therefore would be disproportionate to monetise them. Additional familiarisation costs, including training, have also not been monetised as the offences the powers are in relation to are part of existing regulation and would therefore lead to double counting.

CJS costs

We have not monetised the impacts of these policies on the CJS because of the high level of uncertainty about the number and type of arrests, charges and convictions that might result from these policies. The impact on the CJS as a result of FPNs will be explored, as relevant, through assessments accompanying secondary legislation relating to FPNs.

CJS impacts as a result of other policies will be assessed through regular dialogue with MoJ.

Direct costs and benefits to business calculations (following BIT methodology)

These proposals are not expected to have significant impacts on business. In cases where an offender is subject to an FPN or is stopped due to UAS misuse, it is the offender who is liable personally. Businesses who are subjected to checks whilst operating a UAS will be impacted; however, if they are complying with existing rules, the cost to them as a result of this policy will be minimal.

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[38] SESAR (2016, November) *European Drones Outlook Study: Unlocking the value for Europe.* Retrieved from https://www.sesarju.eu/sites/default/files/documents/reports/European_Drones_Outlook_Study_2016.pdf

[39] Wikipedia (2018). *List of countries by smartphone penetration.* Retrieved from https://en.wikipedia.org/wiki/List_of_countries_by_smartphone_penetration#2013_rankings

[40] This assumption was apparently "based on interviews with manufacturers, retailers, and other industry experts." This figure has been used in our modelling to estimate the number of UAS operators and remote pilots, based on the number of UAS. This reflects the assumption that the IA of the US scheme is the best available source of such assumptions for the US.

[41] Department for Transport (2017, December, 30), *Drones and other Unmanned Aircraft Bill IA.* (IA No: DfT00398). Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/729457/drones-and-other-unmanned-aircraft-bill-impact-assessment.pdf

Table 6 outlines the cost to business as a result of further police powers. This only includes cost to conduct compliance checks, and does not include stop and search or FPNs as highlighted earlier. The direct cost to business will apply to both policy options two and three, as the difference between the two options (additional stop and search powers) has not been monetised. The total cost to business under the central case scenario will be around £0.5m.[42] This cost excludes the impact of FPNs and stop and search on business.

Wider impacts

Small and Micro Business Assessment

The legislation applies to all UAS operators and remote pilots, including small businesses. While the CAA do not capture information on the size of the organisation, they do publish a list of approved commercial UAS operators which, following the removal of the need to distinguish between commercial and non-commercial operations in the ANO 2016 (as a consequence of the IR becoming applicable), should only include those UAS operators required to seek some sort of authorisation from them i.e. those operating in the specifc and certified category.[43] From reviewing this list using our knowledge of the sector, we believe it is fair to assume that the majority of businesses are small or micro.

If we exclude small business, we would fail to achieve the policy goal. The cost of these powers will not affect all UAS operators and remote pilots, as some would not be stopped at all whilst others may be stopped more than once.

The unit cost of the compliance checks represents a small proportion of turnover for small firms. We do not think the opportunity cost in terms of lost time (six minutes in our central scenario) would lead to further costs in terms of missed deadlines for either small or larger firms. Further police powers in the form of searching premises and seizing a UAS will only be used when police have sufficient evidence in order to do so, as we have assumed there will be a 100% conviction rate. In some scenarios, a UAS could be seized where evidence is not sufficient, and smaller businesses would be disproportionately affected if they only have one UAS to carry out their work. This would not be the case for larger business as we assume they may have multiple UAS; however, the majority of businesses we have identified that will be affected are small or micro.

We do not think small or micro business will be disproportionately impacted by the stop and search powers, as it will be intelligence led and police will need sufficient evidence in order to carry out the stop and search. The impacts of an FPN on smaller businesses will be analysed further under secondary legislation.

Competition Assessment

The impacts in the IA are not expected to affect competition as anyone using UAS should be subject to police checks.

Human Rights Impact

To ensure that new stop and search powers are used proportionately and do not unduly interfere with individuals' human rights, we are proposing to limit their use to offences where misuse of a UAS is likely to have a serious impact. For UAS offences that could be breached in a variety of circumstances, we have included conditions in the wording of the legislation so that stop and search powers can only be used where it is necessary and proportionate to the severity of the offence. For example, in circumstances where the remote pilot has caused harm, harassment, alarm or distress.

[42] 2016 prices, 2017 present value. To see cost in 2019 prices and 2019 present value see table 5.

[43] Civil Aviation Authority (2021, March , 5). CAA-approved Operational Authorisation operators of unmanned aircraft.

Justice Impact Test

A Justice Impact Test has been completed and the impacts on the CJS wil also be explored through any assessments accompanying secondary legislation, such as regulations relating to FPNs.

Greenhouse Gases Impact test

This legislation is not expected to impact greenhouse gas emissions.

Equalities Impact Assessment

Evidence collected by the HO shows that in the year ending March 2018, those who considered themselves to be from BME groups were 4 times as likely to be stopped and searched than those who considered themselves to be White, and in the year ending March 2019, the differential was 4.3 times as likely.[44] As stop and search powers are a new policy in relation to UAS offences, the HO will collect data on stop and search incidents relating to UAS, including those in which arrests are not made, to establish whether the new powers are disproportionately affecting any particular community. Findings will be discussed with the police in order to set out plans for minimising any such impacts if deemed necessary. However, we do not expect these powers to be used frequently, and the HO statistics include stop and search under section 60 of the Criminal Justice and Public Order Act 1994, in anticipation of violence through the use of offensive weapons or dangerous instruments. The stop and search powers in this Bill are limited to circumstances where conditions set out in the Bill are met, including that a constable has reasonable grounds for suspecting that the constable will find a UAS or article associated with a UAS, and that the UAS or article associated with the UAS is or has been involved in the commission of a relevant offence. These conditions limit the use of stop and search, thereby minimising the likelihood of it having a greater impact on one or more of the groups listed above. In relation to age, it is a legislative requirement for operators of UAS to be aged at least 18 in order to register with the CAA, which means that the powers in paragraphs 3 and 4, and paragraph 5 insofar as it relates to UAS operators, of Schedule 9 will only be applicable in relation to those aged 18 or over. Under Schedule 10 of the Bill, a constable will be able to issue FPNs in relation to certain offences which will be specified in secondary legislation. It will not be possible to issue under 18s with an FPN under the Bill.

Wider Environmental Impact

This legislation is not expected to impact the wider environment.

Family Test

This legislation is not expected to impact families.

Health Impact Assessment

This legislation is not expected to impact health.

Rural Proofing Toolkit

This legislation is not expected to impact those in a rural setting unfairly.

Sustainable Development

This legislation is not expected to impact sustainable development.

Innovation Test

We do not think these powers will have a significant impact on innovation, as they will not stop UAS operators and remote pilots operating in the UK but will ensure that they are complying with existing regulations. These powers do not limit the different usage of UAS but ensure that the police have the powers to enforce existing regulation. The rules are not there to stifle innovation but drive a more cultural change of using a UAS safely which will help the market to develop.

[44] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/751215/police-powers-procedures-mar18-hosb2418.pdf

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/841408/police-powers-procedures-mar19-hosb2519.pdf

Summary and preferred option with description of implementation plan

The preferred option proposes to grant the following powers to police:

Extending powers to enable the police to effectively respond to UAS misuse incidents

- The power to require a UAS to be grounded.
- The powers of entry and search of a property using a warrant, and seizure relating to UAS.
- The power to issue fixed penalties for certain offences relating to UAS.
- Powers relating to requirements under the ANO 2016.

Creating FPNs

It may be appropriate for FPNs to be issued in the following circumstances:

- Not producing registration documentation, and/or proof of registration as an operator of a UAS at the request of a police constable.
- Not producing evidence of any other relevant consent or exemption required by legislation.
- Not complying with a police officer when instructed to land a UAS or to allow an inspection to take place.
- Flying a UAS without a valid acknowledgement of competency, or failure to provide evidence of meeting any relevant competency requirement when requested.
- Where another ANO 2016 offence has been committed, under certain conditions.

Granting stop and search powers

Attaching stop and search powers to the following offences:

- ANO 2016 article 94A - which prohibits UAS from being flown in a protected aerodrome flight restriction zone without the required permission.
- ANO 2016 article 239(4) – which prohibits UAS from being flown in a restricted or prohibited area in contravention of the rules made by the Secretary of State.
- ANO 2016 article 240 – which prevents UAS from being flown recklessly or negligently in a manner likely to endanger an aircraft, or any person in an aircraft.
- ANO 2016 article 265A(2) - if UAS operators do not comply with the risk based framework of the IR, then an offence has been committed. Paragraph 1 sets out that a UAS operator must not ‘cause or permit’ (i.e. require or allow) a UAS to be flown unless:
    - Open category flights – the open category requirements in the UAS IR are met;
    - Specific category flights – the UAS operator holds a valid operational authorisation, a light UAS operator certificate (LUC) or the flight can be conducted in accordance with a valid authorisation that has been issued to a model aircraft club or association;
    - Certified category flights – the UAS and the UAS operator have been certified in accordance with the UAS IR and those certificates are valid.
- ANO 2016 article 265B(2) - if remote pilots do not comply with the risk based framework of the IR, then an offence has been committed. (The article is set out in a similar pattern to 265A above.) Paragraph 1 sets out that a remote pilot must not fly a UAS unless:
    - Open category flights – at the time of take-off, the remote pilot reasonably holds the view that the open category requirements in the UAS IR can be met;
    - Specific category flights – at the time of the flight, there is a valid operational authorisation, an LUC or the flight can be conducted in accordance with a valid authorisation that has been issued to a model aircraft club or association;
    - Certified category flights – the UAS and the UAS operator have been certified in accordance with the UAS IR and those certificates are valid.

- ANO 2016 article 265B(3) - which makes it an offence for a remote pilot to contravene certain requirements imposed by the IR. The power only applies in respect of offences relating to contraventions of requirements within the definition of “releveant offence under article 265B(3) of the ANO 2016” in the Bill.
- ANO 2016 article 265E(7) – which makes it an offence for a UAS operator or remote pilot of a tethered small unmanned aircraft to contravene certain requirements. The power only applies in respect of offences relating to contraventions of requirements within the definition of “releveant offence under article 265E(7) of the ANO 2016” in the Bill.
- Prison Act 1952 s39, Prison Act (Northern Ireland) 1953 s29(1) and s33, and common law in Scotland – which make it an offence to convey anything into a prison or to a prisoner that could be used to facilitate the escape of any prisoner. A UAS could be used to commit such an offence.
- Prison Act 1952 s40B, s40C and s40CB, Prison Act (Northern Ireland) 1953 s34A and 34B, and Prisons (Scotland) Act 1989 s41 and 41ZA - which make it an offence to convey items into or out of prisons. A UAS could be used to commit such offences.

Implementation

The Air Traffic Management and Unmanned Aircraft Bill was introduced in the first session of Parliament following the Queen’s Speech that took place on 19 December 2019.

The new powers outlined in this IA are proposed to come into force as set out in clause 21 of the Bill.

Alongside the legislative process, in response to the consultation feedback received, the Government will continue to work with the police and the CAA to improve the police's awareness and knowledge of UAS and the laws that apply, and update guidance on best practice where necessary.

Review Process

We expect this policy to be reviewed on an on-going basis to ensure that it is fit for purpose, is keeping pace with the advancements in UAS technology and is being effectively implemented by the police to achieve the policy objectives set out above.

Post-implementation, we will continue to assess the impact on key stakeholder groups as follows:

- We will assess the impact on commercial UAS operators of UAS by assessing whether the measures proposed have an impact on registration rates. This will only be possible once we have substantial data from the Drone and Model Aircraft Registration and Education Service to conduct analysis. We will also seek feedback through our regular channels with industry, such as via regular dialogue with trade associations and via mechanisms such as the BEIS led “Drones Industry Action Group”. Similarly, we will seek feedback from broader industry, such as UAS manufacturers, through our routine engagement, such as organised roundtable discussions.
- To assess the impact on leisure UAS operators and remote pilots of UAS, similarly we will work with UAS manufactures to see if there has been any change to sale rates. We will not be able to observe the effects on UAS registration and testing rates for leisure UAS operators and remote pilots, as we will not have a counterfactual to compare the figures against to see what the effects of the policy are.
- To assess the impact on the police we will continue our regular dialogue through established forums and seek data reported to HO from the National Police Chiefs’ Council on incidents where the powers have been used. These reports will be regularly discussed with the police.

The impact on the CJS as a result of FPNs will be covered through assessments accompanying any relevant secondary legislation. CJS impacts as a result of other policies will be assessed through regular dialogue with MoJ. When using data from the Drone and Model Aircraft Registration and Education Service or changes in sale rates from manufactures, it may be difficult to analyse if the changes are as a result of these powers or other affecting factors (for example, saturation in the market, price or public acceptance). Therefore, we would need to work with stakeholders across the different working groups in order to assess the impacts of the policy and how much they have affected these numbers.

ANNEX A: SUMMARY OF THE CONTENT OF PART 3 OF THE BILL

New Police Powers

Purpose: To improve the ability of the police to respond to and investigate incidents of the unlawful use of UAS, therefore reducing irresponsible and unlawful use.

Detail:

- Power to require a UAS to be grounded.
- Powers relating to the provision of evidence of compliance with registration and competency requirements, and of consents and exemptions required for a flight of a UAS to be lawful under the ANO 2016.
- Power to issue FPNs for certain offences relating to / involving UAS.

New Stop and Search Powers

Purpose: To address the operational gap identified and to provide the police with a practical advantage when responding to more serious incidents of unlawful use of UAS.

Detail: Stop and search powers will be attached to the following offences committed using a UAS:

- Flying a UAS within a flight restriction zone of a protected aerodrome without the required permission (ANO 2016, article 94A(1)).
- Contravening any regulations made under article 239(4) ANO 2016 (the power of the Secretary of State to prohibit or restrict flying).
- Recklessly or negligently acting in a manner likely to endanger an aircraft, or any person in an aircraft (ANO 2016, article 240).
- Failing to operate/fly within the new risk-based framework of the Implementing Regulation (ANO 2016, article 265A(2)/article 265B(2)).
- Contravening any requirement in article 265B(3) of the ANO 2016 listed in the definition in paragraph 6 of Schedule 8 of the Bill (requirements regulating the operation of a UAS during flight).
- Contravening any requirement in article 265E(7) of the ANO 2016 listed in the definition in paragraph 7 of Schedule 8 of the Bill (requirements regulating the operation of a tethered small UAS during flight).
- Conveying items into a prison or assisting an offender to escape (sections 39, 40B, 40C, 40CB of the Prison Act 1952; sections 29(1), 33, 34A and 34B of the Prison Act (Northern Ireland) 1953; sections 41 and 41ZA of the Prisons (Scotland) Act 1989 and common law offences in Scotland).

New Powers to Enter and Search Under Warrant

Purpose: To ensure police have sufficient powers to search and seize relevant items when investigating more serious incidents of unlawful use of UAS.

Detail: The power enable a constable to apply for a warrant in respect of investigations into the following offences committed using a UAS:

- Flying a UAS within a flight restriction zone of a protected aerodrome without the required permission (ANO 2016, article 94A(1)).
- Contravening any regulations made under article 239(4) ANO 2016 (the power of the Secretary of State to prohibit or restrict flying).
- Failing to operate/fly within the new risk-based framework of the Implementing Regulation (ANO 2016, article 265A(2)/article 265B(2)).
- Contravening any requirement in article 265B(3) of the ANO 2016 listed in the definition in paragraph 6 of Schedule 8 of the Bill (requirements regulating the operation of a UAS during flight).
- Contravening any requirement in article 265E(7) of the ANO 2016 listed in the definition in paragraph 7 of Schedule 8 of the Bill (requirements regulating the operation of a tethered small UAS during flight).

- Offences under the Air Traffic Management and Unmanned Aircraft Act relating to non-compliance with the requirements of police in the exercise
- Offences relating to conveying items into a prison or assisting a prisoner to escape (section 40C of the Prison Act 1952; section 34B of the Prison Act (Northern Ireland) 1953; sections 41 and 41ZA of the Prisons (Scotland) Act 1989 and common law offences in Scotland).
- In relation to Scotland, recklessly or negligently acting in a manner likely to endanger an aircraft, or any person in an aircraft (ANO 2016, article 240) and recklessly or negligently causing or permitting an aircraft to endanger any person or property (ANO 2016, article 241).

Police Act 1997 Amendment ***(not covered by this impact assessment)***

Purpose: To enable interference with property or wireless telegraphy in order to prevent or detect specific offences involving the unlawful use of UAS that do not fall within the definition of "serious crime". The definition of "authorising officer" will be amended to include a member of senior management for prisons and the CNC, enabling them to operate counter-UAS measures at nuclear sites and prisons (only at custodial institutions).

Detail: Property interference or interference with wireless telegraphy will be able to be authorised to detect the use of a UAS, or prevent such use, in the commission of the following offences:

- Flying a UAS within the flight restriction zone of a protected aerodrome without the required permission (ANO 2016, article 94A(1)).
- Contravening any regulations made under article 239(4) ANO 2016 (the power of the Secretary of State to prohibit or restrict flying).
- Recklessly or negligently acting in a manner likely to endanger an aircraft, or any person in an aircraft (ANO 2016, article 240).
- Recklessly or negligently causing or permitting an aircraft to endanger any person or property (ANO 2016, article 241).
- Failing to operate/fly within the new risk-based framework of the Implementing Regulation (ANO 2016, article 265A(2)/article 265B(2)).
- Contravening any requirement in article 265B(3) of the ANO 2016 listed in the definition in new sub-paragraph (h) of section 93(4A) of the Police Act 1997 (requirements regulating the operation of a UAS during flight).
- Committing an offence under section 1(2) of the Aviation and Maritime Security Act 1990, which involves the unlawful and intentional use of a device to destroy or seriously damage property providing facilities at an international aerodrome or aircraft or disrupt services at such an aerodrome which endangers safety.
- Conveying items into a prison or assisting an offender to escape (Sections 39, 40B, 40C, 40CB of the Prison Act 1952; Sections 29(1), 33, 34A and 34B of the Prison Act (Northern Ireland) 1953; Sections 41 and 41ZA of the Prisons (Scotland) Act 1989 and common law offences in Scotland).

ANNEX B: CATEGORIES OF UAS OPERATION AS SET OUT IN THE IMPLEMENTING REGULATION

Open category (lowest risk operations, further divided into sub-categories):

- Only UAS less than 25kg can be flown in this category.
- Certain rules apply, such as not flying above 120m or beyond visual line of sight, not carrying dangerous goods or dropping any material and maintaining a safe distance (depending on the UAS) from people and property.

Specific category (higher risk operations):

- Operators must obtain prior authorisation from the CAA which will permit operations outside of some of the rules of the open category (e.g. flights beyond visual line of sight) in accordance with the conditions and limitations set out in the authorisation.

Certified category (highest risk operations):

- Operations will involve flying over assemblies of people with a UAS that has characteristic dimensions of 3m or more, transporting people or carrying dangerous goods that may be high risk for third parties if there is an accident or operations deemed by the CAA too risky to take place in the specific category.
- All operators and UAS must be certified by the CAA.
- Remote pilots need to be licensed.
- Many requirements applicable to the operation of manned aircraft will apply.