

Starting up

- List all the existing and potential commercial uses of drones that you can think of.
- Read through the whole article. Then do the exercises.

Reading 1

Read the article again to find:

- a) an industry affected by drones
- b) when it started in the UK
- c) two organisations that regulate the operations and activities of this industry in the UK
- d) the abbreviation that is now the usual name for one of them
- e) when a national air traffic control system started in the UK
- f) how long drones have been in existence
- g) two airports near London
- h) an industry that uses drones in its operations
- i) a system for supervising the movements of drones and its abbreviation
- j) a US company that wants to dominate drone management

Do not blame the drones for outpacing airspace regulation

Commercial aviation has been a reality in the UK since at least the 1920s. But it wasn't until 1962 that a truly unified system for the country was launched by the National Air Traffic Control Service, now the NATS. Shockingly, even in the modern surveillance era, there is still no equivalent unified traffic control system in place for drones, which have been a serious presence in the UK for at least a decade. Taking another 30 years to develop a similar system for unmanned aircraft is not an option. As the Gatwick and Heathrow drone flying incidents show, a unified system must be a priority. Don't blame the drones for paralysing a major airport: blame the lack of regulation and information sharing. An enormous amount of time would have been spared if we had understood where these drones were coming from. Further drone commercialisation depends on organising drone airspace too. Without it, unmanned aerial package delivery will not be possible.

Fascinatingly, we are not held back by lack of technology. As is often the case when creating systems for varied actors operating in a public space — in this case our airspace — inaction comes from having to respect opposing needs while encouraging co-operation. Motivating competing private organisations and official ones to co-operate on information sharing is hard. This is especially true if operations are considered commercially sensitive. Public visibility of an oil operator's maintenance drones, for example, might create a competitive disadvantage for the company. Real time tracking of official drones as they're dispatched to respond to a major incident, meanwhile, might compromise national security.

Anonymised data, which can only be de-anonymised by authorities when necessary, is clearly essential. But this poses another problem. Air traffic control systems are already overstretched. For a unified system to be established, the remit of air traffic controllers will certainly have to be expanded to cover the unmanned sector. As it stands, drone operators needing to fly in civil aviation space have to make requests to air traffic controllers. Responses can take weeks if not months due to the lack of resources.

To spare resources, any unmanned traffic management — or UTM — would have to automate things as much as possible. But platforms offering such capabilities emerge from the private sector. It is tempting to sit back and wait for one particular platform to triumph in bringing together all the data pools about private drones. However, intervention by the authorities is probably necessary to speed up the process.

Luckily, the UK already has the chance to become the global standard. Commercial operators are already required by the UK Civil Aviation Authority to obtain permission. Just combining this information with voluntarily submitted flight plans would help improve the data picture enormously, according to industry professionals. Nonetheless, there are always going to be companies who want to dominate data gathering. In the US, Amazon is vying for pole position, which makes many industry participants uncomfortable. To keep the playing field level and open, authorities will need to think carefully about who they partner with and for how long.



Vocabulary – correct forms

Complete the commentary by using appropriate forms of words and expressions from the headline and the first two paragraphs of the article. The number of letters is shown in brackets.

Do not blame the drones if they o_____ (7) airspace regulation

There was no real u_____ (11) of the air traffic control system in the UK until 1962. It comes as a s_____ (5) to learn that there is no similar system for drones. We cannot allow d_____ (11) of such a system to take 30 years. Drones have been p_____ (7) in the skies in serious ways for some time now. They recently caused p_____ (9) at two airports. If drones are not managed properly, it will not be possible to c_____ (13) other services that use them. It's f_____ (11) that technology is not the problem. The technology exists, but there has to be c_____ (11) between the different organisations involved. There are cases where it would not be good for drone operations to be v_____ (7) to the public. For example, oil companies use drones to m_____ (8) their installations. If drones can be t_____ (7) when they are used in emergency situations, their security might be c_____ (11).

Grammar – position of adverbs

Look at the last three paragraphs of the article. Respond to the questions in a positive (POS) way or a negative (NEG) way, using correct forms of the words in brackets, in the correct order, adding any other necessary words. The first one has been done for you as an example.

- 1 Is anonymised data essential? (be/optional/clearly – NEG)
It is clearly not optional.
- 2 Are traffic control systems overstretched? (be/at breaking point/definitely – POS)
- 3 Can the remit of air traffic controllers be expanded? (be/certainly/limited – NEG)
- 4 Is intervention by the authorities going to be necessary in the distant future? (be/definitely/delayed – NEG)
- 5 Are flight plans submitted voluntarily? (submit/compulsorily – NEG)
- 6 Will this help improve the data picture? (picture/improve/help/vastly – POS)
- 7 Will the authorities have to think about who their partners will be?
(can/approach/problem/carelessly – NEG)

Reading 2

Which two of these are correct 'takeaways' from the article?

Managing drones efficiently means...

- a) banning drones for leisure use.
- b) coordinating existing data better.
- c) using humans, in the same way as for passenger aircraft.
- d) relying partly on private companies.

Further discussion / Group work

- 1 Should drones be allowed for recreational/leisure use at all, considering the threat they pose to passenger planes? Why/Why not? If you think they should be allowed, what should the size of the 'exclusion zone' around airports be? Give reasons.
- 2 How soon will drone deliveries become a reality, if ever? Give your reasoning.

ANSWER KEY**Reading 1**

- a) commercial aviation
- b) 1920s
- c) National Air Traffic Control Service, Civil Aviation Authority
- d) NATS
- e) 1962
- f) more than 10 years
- g) Gatwick, Heathrow
- h) oil
- i) unmanned traffic management – UTM
- j) Amazon

Vocabulary

Do not blame drones if they outpace airspace regulation

There was no real unification of the air traffic control system in the UK until 1962. It comes as a shock to learn that there is no similar system for drones. We cannot allow development of such a system to take 30 years. Drones have been present in the skies in serious ways for some time now. They recently caused paralysis at two airports. If drones are not managed properly, it will not be possible to commercialise other services that use them. It's fascinating that technology is not the problem. The technology exists, but there has to be cooperation between the different organisations involved. There are cases where it would not be good for drone operations to be visible to the public. For example, oil companies use drones to maintain their installations. If drones can be tracked when they are used in emergency situations, their security might be compromised.

Grammar

- 2 They are clearly at breaking point.
- 3 It certainly can't be limited.
- 4 It definitely can't be delayed.
- 5 They are not submitted compulsorily.
- 6 It will help to improve the picture vastly.
- 7 They can't approach the problem carelessly.

Reading 2

- b) and d)

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