

## READING

1. Read the article. Choose from the paragraphs (**A–G**) the one which fits each gap (1– 6). There is one extra paragraph which you do not need to use.
  - A.** The first known aerial photos were taken over the French village of Petit-Becetre in 1858, though unfortunately the photos have not survived.
  - B.** Thus drone photography is flexible, and has the added advantage of being fun.
  - C.** Despite this, development of this particular technique has been slow to take off.
  - D.** Their prices have dropped considerably, putting them within reach of huge numbers of people.
  - E.** These events expanded the possibilities enormously and made aerial photography a much more exciting prospect.
  - F.** The devices can be controlled remotely from the ground, using a hand-held console.
  - G.** By 1957, camera technology had progressed so much that satellite images could be sent from space.

## The view from on high

Photographers have always wanted to push the limits of their art and find new ways to take photographs and capture exciting views. One obvious way to do this was with aerial photography, giving the viewer a bird's-eye view of the landscape below. But how was this achieved?

In the early days of aerial photography, hot-air balloons were used to take the cameras (and the photographers, of course) up into the sky. (1) \_\_\_\_ They were taken by Gaspar Felix Tournachon, a balloonist, and were mostly taken for functional reasons, to create an early combination of a map and a survey, showing what the area looked like. For the following thirty years people used balloons, kites or climbed mountains to take photos from a new perspective. That was until two separate developments created new opportunities for taking photos from the air: the development of a new camera called the box brownie in 1900, and shortly after that the start of man-powered flight. (2) \_\_\_\_ .

With the development of large-scale aircraft design and manufacture, the first aerial photography company, Aerofilms Limited, did a lot of work on mapping the UK from the 1920s onwards. Since then, aerial photography continued to develop in a variety of ways. One significant step was the move to space photography. The first space photo, captured in 1946, was taken from cameras that were fixed onto rockets. (3) \_\_\_\_ Things had advanced enormously from the days of cameras in balloons!

But that wasn't an end to it, and the latest development is that UAVs – Unmanned Aerial Vehicles, devices better known as drones and quadcopters. These work on GPS (Global Positioning Technology), meaning they are highly accurate, and they can also go to places humans can't access. (4) \_\_\_\_ There is usually a monitor of some sort attached to the console so the image being captured by the drone can be seen on the monitor below.

Drone photography is now one of the main ways to get images from the air as it gives high-quality images and provides an easy and relatively cheap way to get detailed photos of pretty much anywhere, taken from above. This approach to photography has meant people can get miniature views of small areas, taken from quite low down in the sky, or vast images taken from high up. (5) \_\_\_\_ Drones themselves have developed rapidly throughout the early part of the 21st century and now have a wide variety of uses – scientific, law enforcement, commercial, personal and so on. (6) \_\_\_\_ This widespread accessibility means many enthusiasts now share their drone exploits online.

As for the future of this increasingly widespread and varied form of aerial photography – there's a good deal of concern about the lack of regulation and the possible danger to aircraft and other forms of aviation,. There are also complex and unanswered moral and legal issues concerning privacy to do with photographing private property and people without their permission. Sooner or later, there may be new laws relating to drones. Watch this space!

# LISTENING

1. You are going to listen to a student called Tonia Wilson talking to her class about a marine conservation project that changed her outlook on life. For questions **1–10**, complete the sentences with a word or short phrase.

1. Tonia decided to work on the conservation project because she was studying \_\_\_\_\_ at university.
2. Tonia wanted to make tourists understand the damage that too much \_\_\_\_\_ was doing.
3. Tonia disliked the \_\_\_\_\_ to the island the most.
4. In the camp, Tonia didn't expect the \_\_\_\_\_ to be so simple.
5. Tonia was pleased that volunteers gave some of their \_\_\_\_\_ to others.
6. Tonia needed to find out what \_\_\_\_\_ looked like before she could monitor them.
7. Tonia felt anxious about getting close to a(n) \_\_\_\_\_ before she actually saw one.
8. According to Tonia, what she will remember most is the \_\_\_\_\_ of the coral reef.
9. Tonia says being able to dive in the area made her feel \_\_\_\_\_.
10. Tonia says she is passionate about retaining \_\_\_\_\_ in the marine world.

2. You are going to listen to five people talking about their hobby. For questions **1–5**, choose from the list (**A–H**) the **hobby** each speaker talks about.

- A. fitness training
- B. photography
- C. playing in a band
- D. going to the gym
- E. camping
- F. drawing
- G. country dance
- H. travel writing

Speaker 1

Speaker 2

Speaker 3

Speaker 4

Speaker 5

3. For questions **1–5**, choose from the list (**A–H**) **what** each speaker **says about their hobby**.

- A. I have discovered helpful new techniques online.
- B. It has helped me identify my dream career.
- C. I have become self-confident through it.
- D. I've met a lot of interesting people.
- E. It allows me to express original ideas.
- F. It's thanks to my friends that I've carried on with it.
- G. I make a lot of money from my hobby.
- H. I have discovered a talent I didn't know about.

Speaker 1

Speaker 2

Speaker 3

Speaker 4

Speaker 5