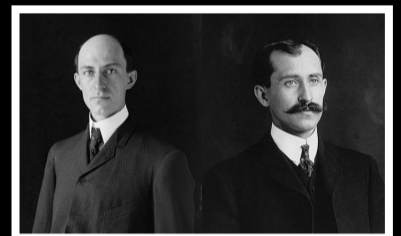




The next UCTV broadcast is on Monday, March 6, from 2:00pm - 2:30pm. This special episode will feature Tasmania Reads, a new Libraries Tasmania program. Aunty Patsy Cameron, a descendant of the Pairebeenne Trawlwoolway clan in Tasmania, will be reading from her book *Sea Country*, and will be available to answer any questions students may have. Find out more and register: <https://www.utas.edu.au/underwood-centre/projects-and-initiatives/uctv>



The 1903 Wright Flyer remains on display at the National Air and Space Museum in Washington, DC. Wilbur and Orville Wright, pictured right, made the world's first successful flight of a powered heavier-than-air flying machine at Kitty Hawk, North Carolina, on December 17, 1903. The flight lasted 12 seconds and travelled 36m, with Orville Wright piloting. But that same day, with Wilbur Wright at the controls, the 1903 Wright Flyer travelled 256 metres in 59 seconds.



FAST FLIGHTS

Is there really a need for supersonic speed?

HAVE you ever wondered how fast planes can fly?

Well you have possibly flown on a passenger airplane from Tasmania to another state, or perhaps you have flown to or from another country.

Do you remember what type of plane you flew on?

Perhaps you caught a Boeing 737-800, which has an average cruising speed of 853 kilometres per hour.

You might also have been a passenger on an Airbus A320-200, with a slightly quicker cruising speed of 863 kilometres per hour.

That's pretty fast.

You can fly from Hobart International Airport to Melbourne Airport - a distance of 616 kilometres - in an average flight time of 1 hour 13 minutes.

Cruising speed is the average speed an aircraft reaches once it is no longer climbing.

It is not the top speed.

Usually passenger jets fly a bit slower



IN RETIREMENT: The Lockheed SR-71 Blackbird, above left, and the Concorde, above right. Pictures: iStock/ lissart/ Senobrabeck

than top speed to save fuel. The Airbus A320 200, for example, has a maximum speed of 903 kilometres per hour.

But that's a lot slower than the Concorde, which was able to fly at almost twice the speed of sound - 2179 kilometres per hour.

The Concorde was the first supersonic passenger commercial airplane.

Supersonic means faster than the speed of sound - Mach 1 - which is about 1235 kilometres per hour.

Built by British and French manufacturers, the Concorde operated as a passenger service in the 1970s,

but it didn't last long. Concorde were noisy, which passengers didn't enjoy.

They were also expensive to run, which meant passengers paid more than \$12,000 for a return ticket from London to New York.

But they were fast.

On current passenger airlines it takes more than eight hours to fly from London to New York.

On the Concorde it only took about three hours.

Only 14 Concorde ever went into service, and in 2003, both Air France

and British Airways ended its use.

But there is a new commercial supersonic airliner on the way - the Boom Overture.

Boom Technology is planning to introduce flights by 2029, and the new airliner will be quieter than the Concorde, and tickets will be less expensive.

The Overture won't be quite as fast though.

It will take 3 hours and 30 minutes to fly from London to New York.

CONTINUED PAGE 2

The need for speed

FROM PAGE 1

The first flight by the 1903 Wright Flyer travelled at an average air speed of about 50 kilometres-per-hour.

There are all sorts of air speed records, depending on the types of aircraft involved.

The Lockheed SR-71 Blackbird holds the official air speed record of 3530 kilometres per hour for a manned "airbreathing jet engine" aircraft.

An airplane needs four forces to fly - force, thrust, lift and drag.

Force is a push or a pull that causes an object to change speed, direction or shape.

Thrust is what propels an aircraft forward, and can be provided by a propeller or a jet engine.

Air plane wings are shaped to make air move faster over the top of the wing.

When air moves faster, the pressure of the air decreases.

The difference in pressure creates a force on the wing that **lifts** the plane up into the air.

Drag is the force that slows the plane down.



The tail of a plane helps to create this force so planes can slow down when needed and turn more easily.

Nature's great flyers, birds, use their wings for thrust and lift.

Like planes, a bird's

wings are curved at the top and flat on the bottom (lift).

Birds flap their wings to propel themselves forward (thrust).

They twist their wings on the downward stroke to stay aligned in the direction they want to travel.

They half fold their wings on the upward

stroke to reduce air resistance. Like planes, birds are light, streamlined and rigid (not easily bent out of shape), all of which helps them with flight.

They also have different physical features to meet their flight needs.

The peregrine falcon can fold its wings back against its body to reduce drag,

and reach a diving speed of about 390 kilometres per hour.

But the fastest bird in level flight, or at least the fastest measured by scientists, is the common swift at 111.5 kilometres per hour.

Did you know Tasmania is home to the world's fastest parrot (see below)?



Is there another species of animal which can fly faster than a bird?

FAST FLIERS: A peregrine falcon, main picture, and a common swift, below left, hold world flight speed records.

Pictures: iStock/ Harry Collins/ Farinosa

Fast facts about fast parrot

Find out as much as possible about the world's fastest parrot by researching it at your local library or by going online.

Present your findings in a creative way.

You might like to draw or paint the bird.

Children's University Tasmania members can earn hours in their passports for this challenge, at the discretion of school/ hub coordinators.

The questions below, might help to guide you on your fact finding mission.

1. What is the common name of this parrot, pictured right?
2. What is its scientific name?
3. How fast can it fly?
4. In which areas of Tasmania does it breed?
5. What is its favourite food?
6. How do the colours of a male differ from a female?
7. Where does it like to nest?
8. About how many are believed to be left in the wild?
9. What does 'endangered' mean?
10. What else is interesting about this special bird?



Birds of prey

WORDSEARCH

DID YOU KNOW? Bald eagles live in North America. They have 7000 feathers, which protect them from the heat, the cold and the rain. Bald eagle feathers interlock in several layers.



The words on the list which are in capital letters are hidden somewhere in this puzzle. Find and circle them. When you have found all the words the letters you have left will give you the answer to this question . . . Which bird of prey is the national symbol of the United States of America? The solution is above.

BARRED owl	E	G	O	S	H	A	W	K	B	A	L
BATELEUR eagle	R	O	S	B	A	T	E	L	E	U	R
brown GOSHAWK	U	L	P	E	R	E	G	R	I	N	E
CALIFORNIA condor	T	D	R	A	R	A	C	A	R	A	C
CARACARA	L	E	E	B	I	R	D	D	E	A	O
GOLDEN eagle	V	A	I	N	R	O	F	I	L	A	C
GYRFALCON	G	Y	R	F	A	L	C	O	N	L	E
northern HARRIER											
OSPREY											
PEREGRINE falcon											
secretary BIRD											
snowy OWL											
turkey VULTURE											