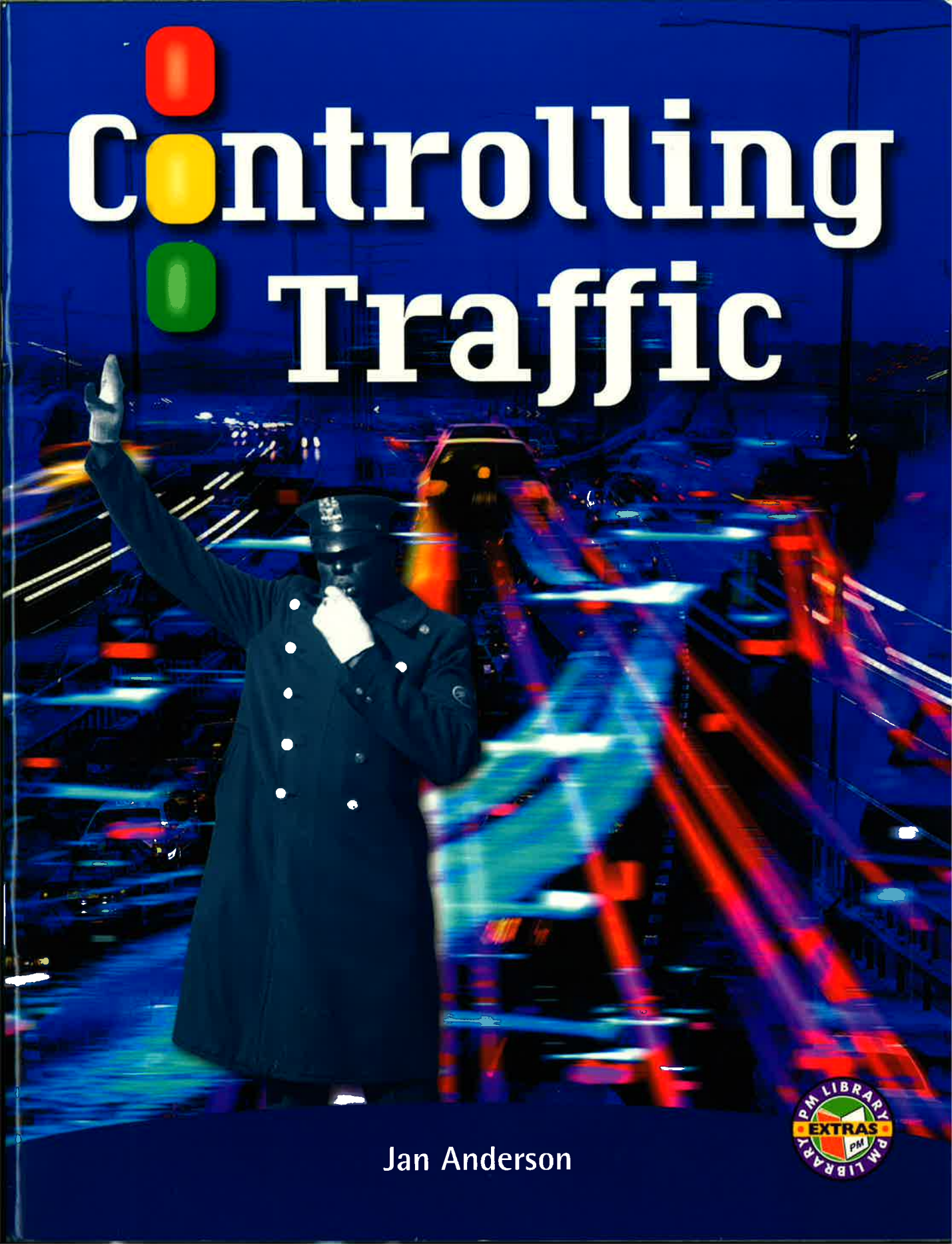
Controlling Traffic



Jan Anderson

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Controlling Traffic

Key vocabulary

almanac, automated, beacon, berth, channels, control tower, coordinate, detect, display, GPS, monitor, navigating, peak hour, points, pulse, radar, radio, satellite, sensor, signal, traffic jam, traffic lights, train signals

Grammatical conventions

- Action verbs: control, coordinate, monitor, track, help
- Inverted commas: 'No U-turns', 'red', 'signaler'
- Acronyms: GPS – Global Positioning System, radar – radio detection and ranging

Spelling

- Building on words: air/aircraft/airports/air traffic controllers
- Suffixes: motorists, intersections, controlled
- Antonyms: safe/unsafe, pleasant/unpleasant

Creative thinking task – Knowledge



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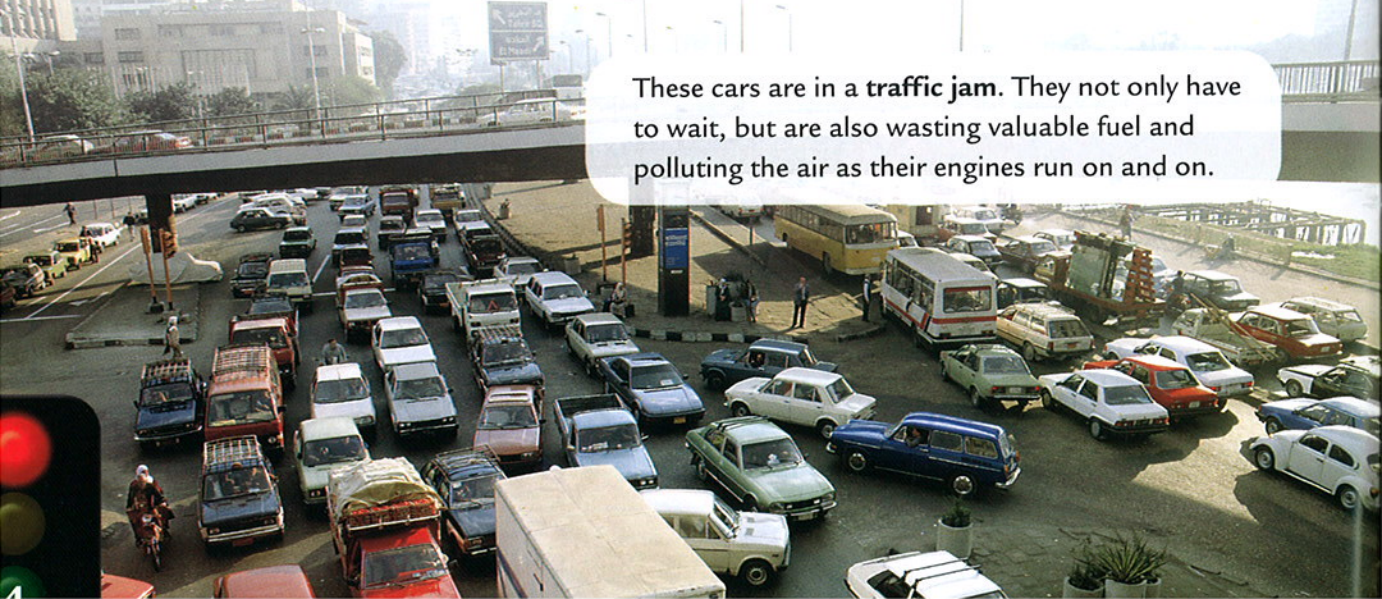
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What is traffic, and why do we need to control it?

Wherever we go today, there is traffic. On the roads, we are surrounded by cars, trucks, buses and bicycles. When we are on board a train, there are other trains ahead of us, or behind. In the air, aircraft share the imaginary highways of the sky, as they fly from one big city to another. At sea, there are always ships **navigating** their way to their destinations.

Traffic has to be controlled so that we arrive safely at our destination. Aircraft using the same track, for example, have to be managed so that they are kept a safe distance apart. Roads need signs that tell motorists not to do a U-turn in an unsafe place.

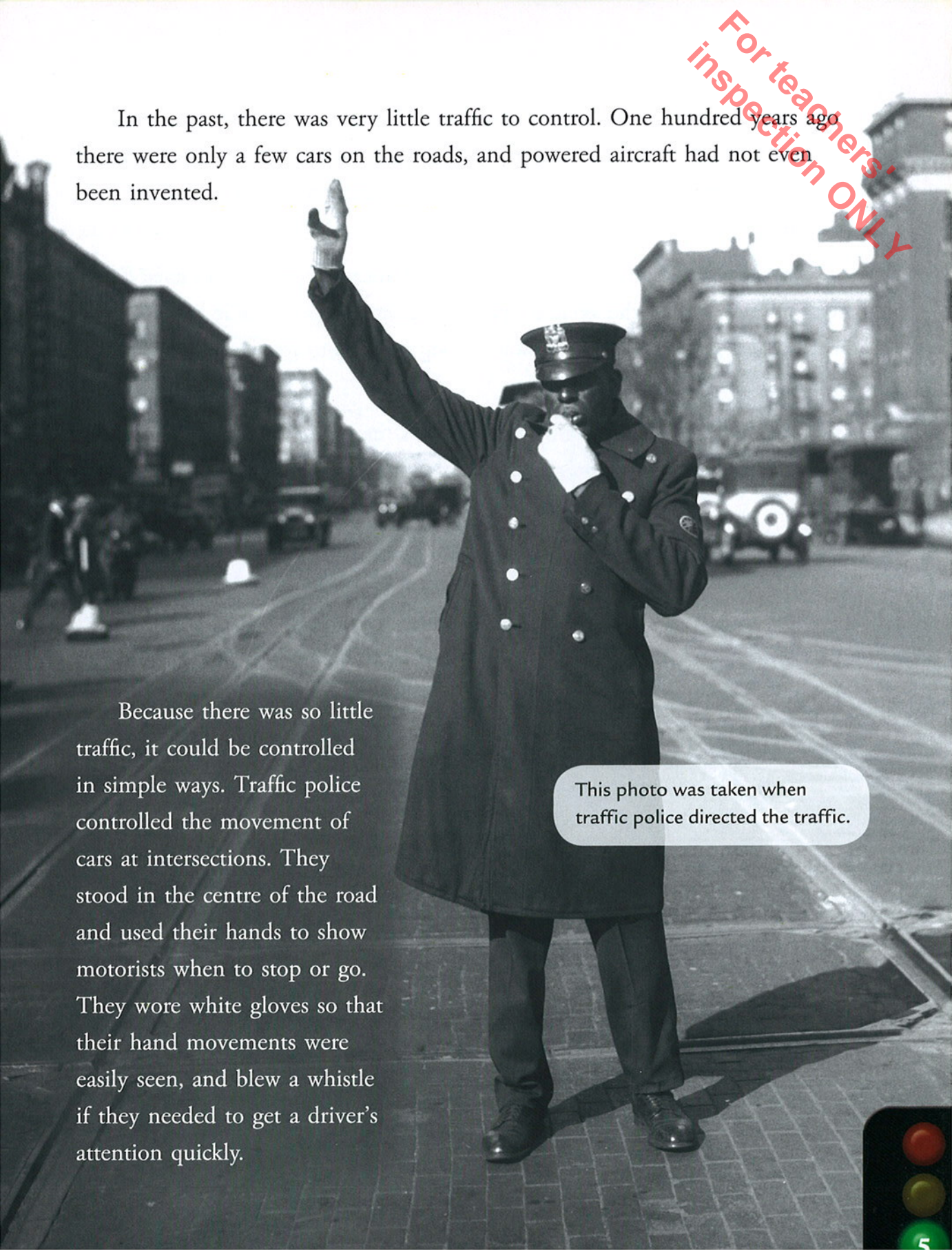
When we control traffic, we also help to keep the traffic moving along. This means that we get to our destination on time.



These cars are in a **traffic jam**. They not only have to wait, but are also wasting valuable fuel and polluting the air as their engines run on and on.

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In the past, there was very little traffic to control. One hundred years ago there were only a few cars on the roads, and powered aircraft had not even been invented.



Because there was so little traffic, it could be controlled in simple ways. Traffic police controlled the movement of cars at intersections. They stood in the centre of the road and used their hands to show motorists when to stop or go. They wore white gloves so that their hand movements were easily seen, and blew a whistle if they needed to get a driver's attention quickly.

This photo was taken when traffic police directed the traffic.

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With modern technology, we now have many ways of controlling traffic, whether it is on the land or sea, or in the air. Computers **coordinate traffic lights** in an area, so that traffic flows smoothly in the busy direction during **peak hour**.

There are traffic management centres that are never closed, not even at night. They **monitor** the smooth operation of hundreds of traffic lights. Some of them also keep an eye on freeways, using cameras to see why the traffic has stopped.

Many railways are controlled from centres that use computers to change train **signals**, or lower boom gates so that a train can cross a road.

watching freeway traffic at a traffic management centre



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At airports, air traffic controllers use a kind of technology called radar to track the movement of aircraft both on the ground and in the air. When they know where the traffic is, the controllers can help land aircraft safely at the airport.

Without traffic control, the world would be a chaotic place to live in, particularly with so many of us wanting to go places every day.



This radar aerial is scanning the skies for aircraft that are near the airport.

Traffic on land

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Most of the trips we do each day are by road or by rail. On weekdays, many of us use public transport like buses or trains to get to school or work. At weekends, many families use their cars to go shopping, or to participate in activities such as sports matches and dance classes.

Roads

Without traffic control, our roads would be difficult, and unpleasant, to use. Cars and trucks have to share the roads with buses and bicycles, which also have to arrive at their destinations safely.

There are many ways to control the traffic on our roads, and sometimes we use combinations of them.

'No technology' kinds of traffic control

The oldest ways of controlling road traffic use no technology at all.

One of these ways is to have road rules. Some of the rules are shown on signs, such as 'No U-turns'. This sign forbids motorists to do a U-turn in a dangerous place, like on a busy road.

Signs that show speeds, like '50' for 50 kilometres an hour, control how fast the traffic moves along local streets, and make an area safer for children.



