

ENGLISH LEARNING FOR CURIOUS MINDS



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Episode #008

Who Owns The Sky (And Why Does It Matter)?

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[00:00:02] Hello, hello, hello, and welcome to the English Learning For Curious Minds podcast by Leonardo English.

[00:00:09] I'm your host Alastair Budge and it's time for part two of our three part mini series on who owns the sea, sky, and space.

[00:00:19] So today it's part two. It's the sky.

[00:00:22] If you're looking for a quick answer to who owns the sky, I'm afraid there really isn't one.

[00:00:27] It's quite complicated, but pretty interesting.

[00:00:31] If you haven't already checked out part one, which is who owns the sea, then it's well worth a listen.

Who Owns The Sky (And Why Does It Matter)?

[00:00:36] There's a lot in there that's not only fascinating if I may say so myself, but will help [contextualise](#)¹ parts two and three.

[00:00:45] Okay. Before we get right into it, for those of you listening on Apple podcasts, Spotify, or whatever your favourite podcast app might be, I just wanted to remind you that you can get all of the key vocabulary and transcript for this podcast on the website, so that's [Leonardoenglish.com](http://leonardoenglish.com).

[00:01:03] Okay. That's the housekeeping over.

[00:01:05] Today we are going to be talking about the sky, who owns it and why that matters.

[00:01:11] To do that though, we are going to need to go into a little bit more detail about what the sky actually is.

[00:01:20] In English and in most languages in fact, the word sky is used broadly to describe what's above us, what's between the land and space. It's not the same as atmosphere, which is the collection of gases that surround the earth.

[00:01:36] It's not a scientific term, and where the sky starts and ends isn't completely black and white.

[00:01:43] So where does the sky start?

[00:01:46] Is it ground level? So by our feet, by that definition, are we all walking in the sky?

[00:01:53] That seems quite strange, right?

[00:01:55] But technically it's actually true. The sky is really just everything above the surface of the earth until you get to space, until you get to where space starts.

¹ put into context, give you the background to help understand

Who Owns The Sky (And Why Does It Matter)?

[00:02:06] But where exactly does space start?

[00:02:09] From our position on the ground, you could be forgiven for thinking that it goes on almost forever, and evidently, where the sky ends and space starts isn't immediately obvious, it's not like there's a big line or anything.

[00:02:23] And it's also not helped by the fact that the term "sky" isn't very useful. It's not very scientific.

[00:02:31] So let's use more scientific terms.

[00:02:34] The atmosphere, of which the sky is a part, [extends](#)² for about 250 miles from the surface of the Earth.

[00:02:41] That's the distance from New York to Washington, D C.

[00:02:46] This 250 miles is split up into different parts, starting with something called the troposphere.

[00:02:52] This starts at the ground and goes up to anywhere from four to 20 miles depending on whether you are one of the poles where it's thinner or at the equator where it's thicker.

[00:03:03] Even though the troposphere is just the first [slice](#)³ of the atmosphere, it's where most of the action happens, for the obvious reason that getting above it is pretty difficult.

[00:03:15] Remember, most commercial planes fly at between 31,000 and 38,000 feet, so that's about 5.9 to 7.2 miles. Even the U2 spy plane can only go up to 70,000 feet, which is just over 13 miles up from the ground.

² go up

³ a portion or share of something

Who Owns The Sky (And Why Does It Matter)?

[00:03:32] So let's **stick with**⁴ the lower part because you can't really go much higher, and then we'll **round off**⁵ with who owns the bit above it.

[00:03:41] We can think about ownership of the sky in two different categories: on an individual level and on a national level.

[00:03:49] On an individual level being who owns the sky above my house and on a national level being who owns the sky above my country.

[00:03:56] Let's talk about it on an individual level first.

[00:04:00] Now of course, we can't **lump**⁶ the laws of every country in the world into one, but in the west at least, there are a lot of similarities between countries in the way in which ownership of the airspace works on an individual level.

[00:04:15] You might be surprised to find out that most of Western law was actually based on a 13th century law called Cuius est solum, eius est usque ad coelum et ad inferos, which is Latin for whoever's is the **soil**⁷, it is theirs all the way up to heaven and all the way to hell.

[00:04:33] This is quite a poetic way to say if you own the ground then you own everything above it and you own everything below it.

[00:04:42] The base of this law has **stood the test of time**⁸ and in most of the Western world, a similar principle still applies.

⁴ persevere or continue with

⁵ conclude with, finish with

⁶ treat in the same way

⁷ the upper layer of earth in which plants grow

⁸ last or remain popular for a long time

Who Owns The Sky (And Why Does It Matter)?

[00:04:52] If you own the land, then nobody can [encroach on](#)⁹ what's defined as your airspace without your permission.

[00:05:00] But naturally there had to be some [amendments](#)¹⁰ to a law that was formed in the 13th century as the, as the world has changed quite a bit since then.

[00:05:10] In the 13th century, nobody could really get into your airspace and the law only really existed to stop people doing things like building bridges over the land of someone else.

[00:05:21] With the [advent](#)¹¹ of flight, this evidently complicated things.

[00:05:25] If a hot air balloon happened to blow over your land, blow over the airspace of your land, was this [trespassing](#)¹² in the same way as it would be if a horse and cart of someone else came onto your land?

[00:05:38] As you might expect, it wasn't practical for a landowner to have [infinite](#)¹³ ownership of the airspace.

[00:05:45] This would mean they could do things like [extract tariffs](#)¹⁴ for anyone flying above their land, which would be hugely complicated and it wouldn't really make any sense.

[00:05:55] So what has happened is that most countries recognise the immediate airspace above land as belonging to the landowner.

⁹ intrude on (a person's territory, rights, personal life, etc.), disturb

¹⁰ changes

¹¹ the arrival of a notable person or thing

¹² enter someone's land or property without permission

¹³ without end, continues forever

¹⁴ require payments for

Who Owns The Sky (And Why Does It Matter)?

[00:06:03] Immediate here is defined as the space required so others can't interfere with the [routine](#)¹⁵ use of it.

[00:06:11] Typically, this sky or airspace goes up around a hundred metres from the building, but it varies from country to country and there's no [hard and fast](#)¹⁶ rule that applies globally.

[00:06:23] It's for the individual countries to decide.

[00:06:26] In practical terms, this means that someone can't build over my property and [obscure](#)¹⁷ the light from above or interfere in any way with what my routine use of the property would be.

[00:06:38] It also means that, as the individual who owns the land owns the immediate sky above, drones, aircraft or anything else that may want to decide to come into that space needs the permission of the landowner, no matter whether they are manned or not.

[00:06:54] This is becoming an increasing problem with things like drones , as lots of people just assume that they can fly them anywhere. In reality, the cases that it's quite a lot more complicated and mostly they can't.

[00:07:06] But above this immediate area, who owns that?

[00:07:13] We've covered only the first hundred meters of the sky, which, although it's debatably the most important as it's closest to the land, it is still only a tiny [proportion](#)¹⁸ of the entire sky.

¹⁵ usual, normal

¹⁶ (of a rule or a distinction made) fixed and definitive

¹⁷ get in the way of

¹⁸ a part, a percentage

Who Owns The Sky (And Why Does It Matter)?

[00:07:24] The answer actually is on one level, quite simple.

[00:07:29] It's owned by the country below the sky.

[00:07:33] This can be the territorial land of the country, or it can be the seas that are also owned by the country.

[00:07:39] As we found out in part one of this mini series, ownership of the sea can [stretch out](#)¹⁹ 350 nautical miles from the coast and as ownership of the sky belongs to whatever country owns the ground below it, well then ownership of the sea can [come in pretty handy](#)²⁰ too.

[00:07:56] In practical terms though, what does ownership actually mean?

[00:08:01] Well, if a country owns something, then it can decide what it wants to do with it and it can decide how it wants to let others use it.

[00:08:09] [For starters](#)²¹, it can require other countries to pay to use it, to pay to go into it.

[00:08:15] When aeroplanes fly through the airspace of another country, for example, they have to pay a fee to that country to do so.

[00:08:23] If we take the example of a plane flying from Barcelona in Spain to Copenhagen in Denmark, they would have to pay almost 1,600 euros in fees to six different countries because they go through the airspace of six different countries.

¹⁹ extend, continue

²⁰ be useful

²¹ to begin with, to start

[00:08:37] This [revenue](#)²² does of course help cover the cost of providing [air traffic control](#)²³, but especially for countries in strategic locations, this can end up being quite a [nice little earner](#)²⁴.

[00:08:49] Countries that own the airspace can also decide to not allow usage of their airspace. This can turn into quite a [handy](#)²⁵ diplomatic tool and is used by countries to [exert](#)²⁶ pressure on others.

[00:09:02] As we talked about in the episode on where planes can't fly, Taiwanese airlines, for example, can't fly over mainland China, which is a real pain for any Taiwanese airline that needs to go West.

[00:09:13] It's worth saying though, and this is a bit of a [leader on](#)²⁷ to part three of the mini series, that ownership of the skies doesn't continue forever. Evidently, this ownership of the sky can't go on forever, as this would mean that humans would have in effect, decided to divide up the entire universe, as the Earth turned ownership of different parts would change hands and that would obviously be ridiculous.

[00:09:40] The sky does end and of course space starts, but in terms of ownership, but also in terms of where this happens, it's complicated.

²² income, money

²³ the people and equipment that control and monitor aircraft from the ground

²⁴ (informal) something that you can make money from easily

²⁵ convenient, nice

²⁶ put force upon

²⁷ revealing part of what is to come

Who Owns The Sky (And Why Does It Matter)?

[00:09:49] There's currently no global [consensus](#)²⁸ on exactly where sovereignty ends, of where ownership by a country ends.

[00:09:58] Suggestions range from 19 miles above the surface to 99 miles above the surface. There is one semi-official benchmark, which is called the Karmen line, and that's a hundred kilometres, so 62 miles, a hundred kilometres above the surface.

[00:10:15] But this doesn't have any real legal meaning.

[00:10:18] So sovereignty, ownership, extends from the earth upwards, but there isn't a global agreement on exactly how far this goes.

[00:10:27] For the moment there isn't a huge amount of action that happens that far up in the sky. And a country can't just send a plane higher and higher to [bypass](#)²⁹ the sovereign airspace of another way because well, practically no planes can go that far up.

[00:10:44] Right, so to conclude on who owns the sky, the answer is, well, it's complicated.

[00:10:49] Even though it's been more than a hundred years since the Wright brothers first flew and over 200 years since the first hot air balloon, ownership of the sky is still not quite as clear as you might have thought it was.

[00:11:02] If you own the land well, you own the sky above it for as far as you could reasonably claim that it is required for you to use it.

²⁸ agreement

²⁹ to avoid by going around, above, or below

Who Owns The Sky (And Why Does It Matter)?

[00:11:10] And for countries, well, they own or at least control everything above that. There's not quite a global consensus on exactly how far above means here, but it's far enough to have not caused any global [crises](#)³⁰ so far.

[00:11:25] Next up, we're going to be talking about the final [frontier](#)³¹, space.

[00:11:30] We'll be talking about who owns it, why everyone wants a piece of it, and what that might mean for mankind.

[00:11:36] That's all coming in part three of this three-part mini series. So stay tuned for the final episode.

[00:11:42] As always, thank you very much for listening to the show. If you've enjoyed listening to it, then do consider taking 20 seconds out of your day and leaving a review.

[00:11:51] Each review not only puts a smile on my face, but it helps more people find out about the podcast and the more people who find out about the podcast, well the better it'll get for everyone.

[00:12:00] And if you want to get notified whenever we release a new podcast, then hit that subscribe button and it'll be straight on your phone as soon as it comes out every Tuesday and Friday.

[00:12:09] You've been listening to the English Learning for Curious Minds podcast with me, Alastair Budge.

[00:12:15] I'll catch you in part three.

[END OF PODCAST]

³⁰ times of intense difficulty or danger

³¹ border

Key vocabulary

| <u>Word</u> | <u>Definition</u> |
|------------------------|---|
| Contextualise | put into context, give you the background to help understand |
| Extends | go up |
| Slice | a portion or share of something |
| Stick with | persevere or continue with |
| Round off | conclude with, finish with |
| Lump | treat in the same way |
| Soil | the upper layer of earth in which plants grow |
| Stood the test of time | last or remain popular for a long time |
| Encroach on | intrude on (a person's territory, rights, personal life, etc.), disturb |
| Amendments | changes |
| Advent | the arrival of a notable person or thing |
| Trespassing | enter someone's land or property without permission |
| Infinite | without end, continues forever |
| Extract tariffs | require payments for |
| Routine | usual, normal |
| Hard and fast | (of a rule or a distinction made) fixed and definitive |

Who Owns The Sky (And Why Does It Matter)?

| | |
|----------------------|--|
| Obscure | get in the way of |
| Proportion | a part, a percentage |
| Stretch out | extend, continue |
| Come in pretty handy | be useful |
| For starters | to begin with, to start |
| Revenue | income, money |
| Air traffic control | the people and equipment that control and monitor aircraft from the ground |
| Nice little earner | (informal) something that you can make money from easily |
| Handy | convenient, nice |
| Exert | put force upon |
| Leader on | revealing part of what is to come |
| Consensus | agreement |
| Bypass | to avoid by going around, above, or below |
| Crises | times of intense difficulty or danger |
| Frontier | border |

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What did you like? What could we do better?

What did you struggle to understand?

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