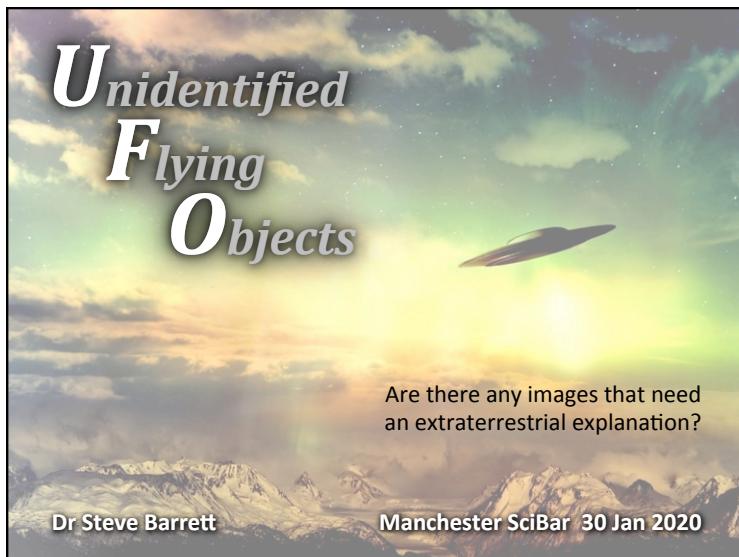


UFOs



Statistics Don't Lie

Have extraterrestrial aliens visited Earth? ✓ 40%

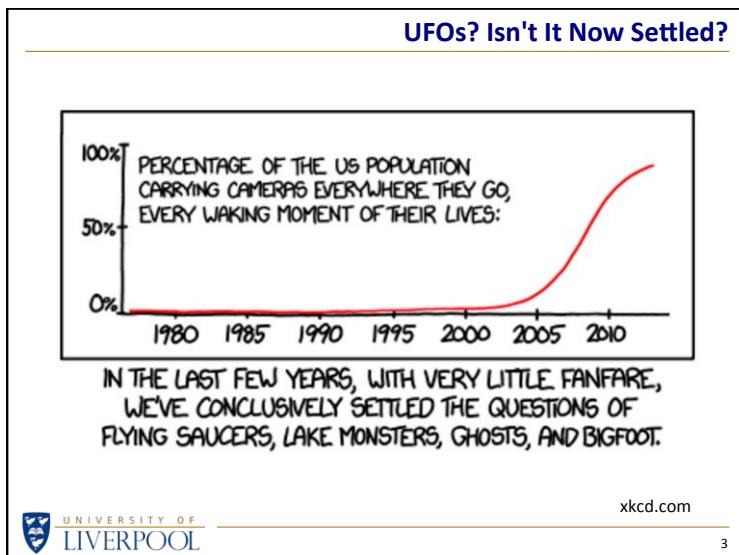
Are extraterrestrial aliens visiting *now*? ✓ 35%

That's less than the number who believe in ghosts (60%)
but greater than telekinesis (25%)
or Bigfoot (20%)

[... or evolution (31%)]



Chapman University Survey 2018 2



No, It's Not Settled

Google hits for "UFO" > 250 million
This implies that, despite so many cameras, it's **not** settled

UFO images could be...

- Manmade Objects
- Natural Objects
- Image Artefacts
- Deliberately Faked
- Extraterrestrial Spacecraft

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Dr Steve Barrett

Manchester SciBar 30 Jan 2020

UFOs

Definitions and Claims

I will conform to the conventional usage of the acronym UFO to mean an object observed in the sky that is not readily identified.

Regarding an extraterrestrial origin, I side with Carl Sagan:

"Extraordinary claims require extraordinary evidence"

Another useful tool for a rational scientist is Occam's Razor:

"If there are two explanations for an observation, then the one that requires the least speculation is usually better."

or

"Simpler solutions are more likely to be correct than complex ones"



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Reliable Information



6

Ideal UFO



... clear, detailed, in focus, no camera shake, well-exposed ...



7

Typical UFO



... blurred, out of focus, camera movement, over-exposed ...



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UFOs

The First UFOs?



UFOs might be ...

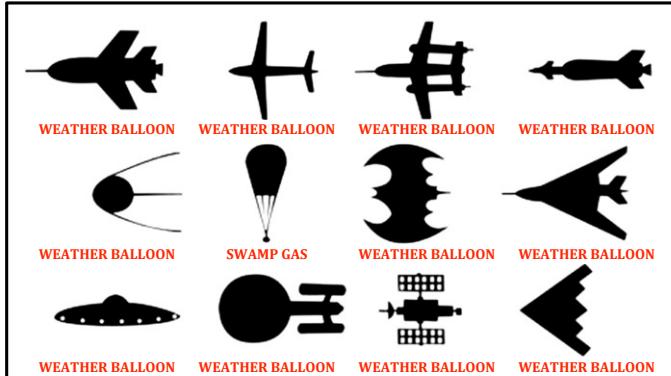
Manmade Objects



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Identifying a UFO

U.S. AIR FORCE AIRCRAFT IDENTIFICATION CHART



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Space Jellyfish



Who could see this
and not think ...

UFO!

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UFOs

Falcon Tails



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Falcon Nebula



BRIAN B. HAIDET, 2018

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Rocket Trails



Seay Photography

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AZURE



APOD 8 Apr 2019 16

UFOs

Google Loon



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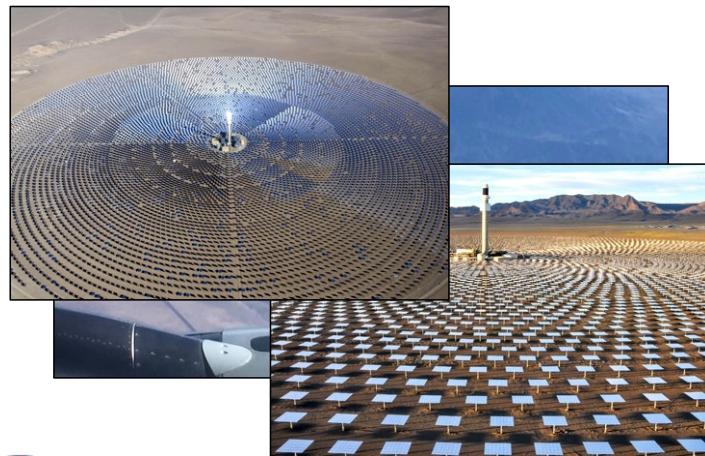
Strange Lights in the Sky



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UFOs Landing



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A Good Year For UFOs



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UFOs

Footwear In Space?



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"Super Clear" Footage



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UFOs might be ...

Natural Objects



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Clouds of the Month



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UFOs

Unusual Clouds



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Light Pillars



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APOD 18 Dec 2013 26

Light Pillars



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Fluctuating Lights



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APOD 8 Nov 2011 28

UFOs

Arc-Shaped UFO over Ontario

"Nearing the end of the day ... I sat down on my deck facing west ... something caught my eye ... it was brilliant white ..."

In truth I cannot be sure what it truly is ... my conclusion is a 'UFO'.

My friend ... thinks the object is as big as two airliners ... I thought one airliner, but maybe he's right!"



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UFOs might be ...

Image Artefacts

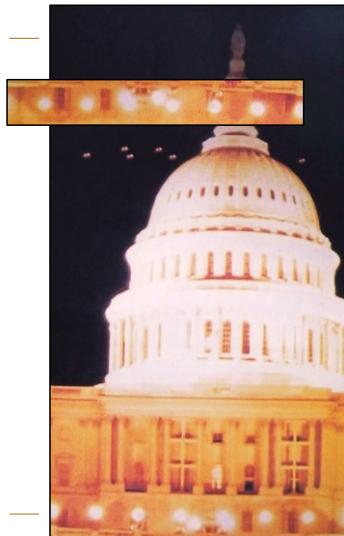


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UFOs in the USA?

Mysterious lights in the sky photographed over Washington DC in 1952

... or maybe they are just reflections of lights in the foreground



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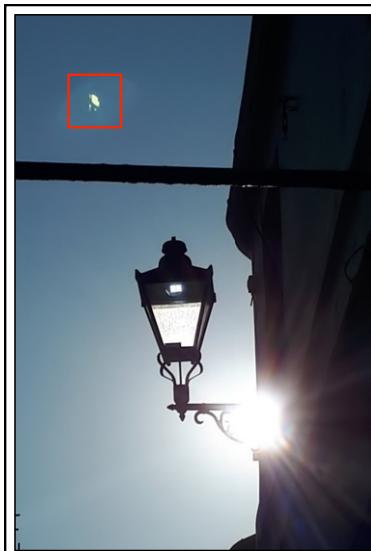
UFO? – Image Artefacts

"The large craft came so close to the photographer that the windows can even be seen in the image."



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UFOs



Shooting Into the Sun

"... what is this in the sky?
It seems to have an aura
around it. Is it a UFO?"

#UFO
#SeriousQuestion

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No Camera Jerk

"Note the power lines in
the photo. As you see, the
wires show absolutely no
distortion which would
indicate no camera jerk.
Also based on the wires in
the photo you can tell we
were shooting almost
straight up."



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Huge Slab in Sky

"... what appears to be a flat, rectangular aircraft with lights
around its edges hovering in the air."

"UFO enthusiasts and conspiracy theorists have claimed it is
an advanced type of spy craft known as a TR-3B."



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UFOs might be ...

Faked



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UFOs

UFO? – UF Faux



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UFO? – UF Faux



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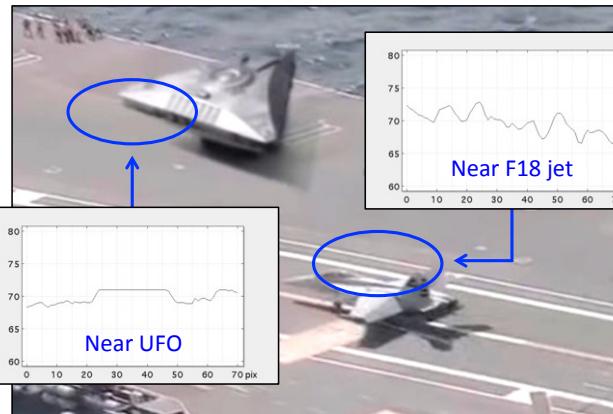
UFO? – UF Faux



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UFO? – UF Faux

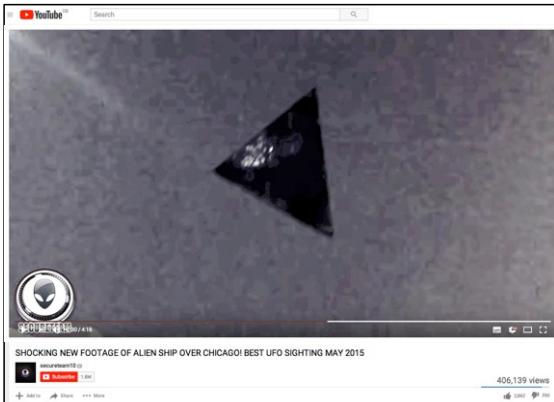


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UFOs

UFO? – UF Faux



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UFO? – UF Faux



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UFOs might be ...

Extraterrestrial Spacecraft



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UFO? – ETs



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UFOs

Rendlesham Forest



Y

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Extraterrestrials?

The lack of evidence for extraterrestrial UFOs leads to a question ...

The number of stars in the Milky Way	≈	300 billion
Most have planetary systems	÷ 2	⇒ 150 billion
Quite a few planets are Earth-like	÷ 3	⇒ 50 billion
Life may have originated	÷ 100	⇒ 500 million
Complex life may have evolved	÷ 100	⇒ 5 million
Intelligent life may have evolved	÷ 100	⇒ 50 thousand

So if the galaxy is full of civilisations – **Where are they?**

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Extraterrestrials?



"Look again at that dot.
That's here. That's home.
That's us. On it ... every
human being who ever
was, lived out their lives ...

– on a mote of dust
suspended in a sunbeam."

Pale Blue Dot
Carl Sagan 1994

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