

# UFOs



## Statistics Don't Lie

Have extraterrestrial aliens visited Earth? ✓ 40%

Are extraterrestrial aliens visiting *now*? ✓ 35%

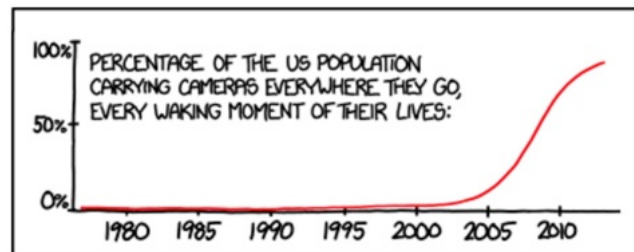
That's less than the number who believe in ghosts (60%)  
but greater than telekinesis (25%)  
or Bigfoot (20%)

[ ... or evolution (31%) ]



Chapman University Survey 2018 2

## UFOs? Isn't It Now Settled?



IN THE LAST FEW YEARS, WITH VERY LITTLE FANFARE, WE'VE CONCLUSIVELY SETTLED THE QUESTIONS OF FLYING SAUCERS, LAKE MONSTERS, GHOSTS, AND BIGFOOT.

xkcd.com



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## 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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# 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



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## Ideal UFO



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## Typical UFO



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# UFOs

## The First UFOs?



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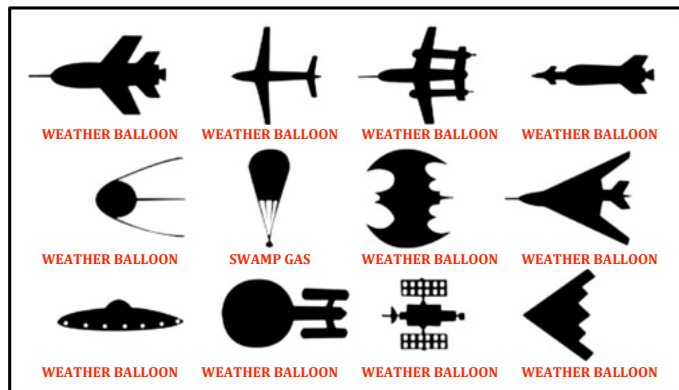
UFOs might be ...

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



Falcon Nebula



Rocket Trails



AZURE





# UFOs

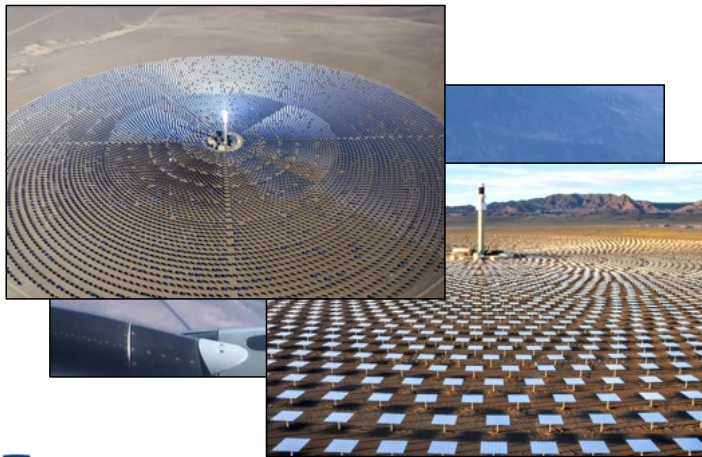
Google Loon



Strange Lights in the Sky



UFOs Landing



A Good Year For UFOs



# UFOs

## Footwear In Space?



## "Super Clear" Footage



UFOs might be...

Natural Objects

## Clouds of the Month



# UFOs

Unusual Clouds



Light Pillars



Light Pillars



Fluctuating Lights



# 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!"



UFOs might be ...

Image Artefacts

## 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

## UFO? – Image Artefacts

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




"UFO sighting is 100% proof ALIENS are here on Earth."



# UFOs

**Shooting Into the Sun**

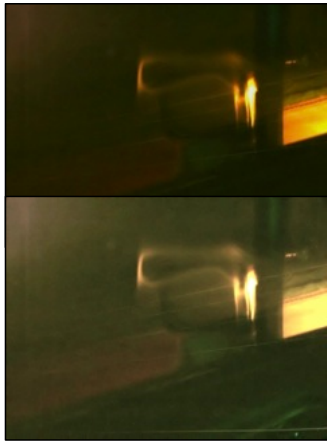


"... what is this in the sky?  
It seems to have an aura  
around it. Is it a UFO?"

#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



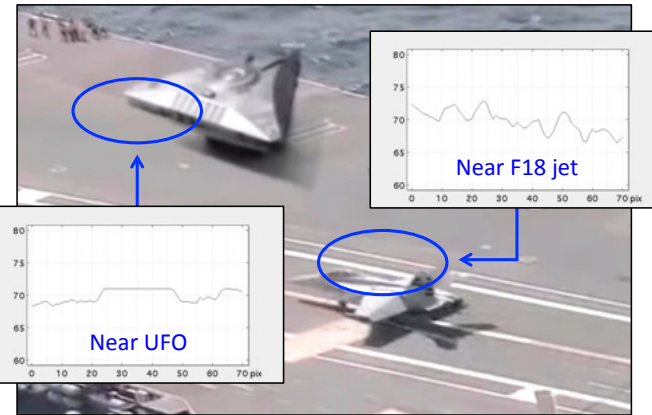
UFO? – UF Faux



UFO? – UF Faux

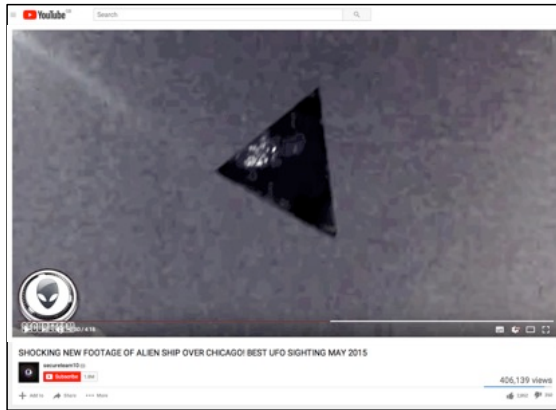


UFO? – UF Faux



# UFOs

## UFO? – UF Faux



## UFO? – UF Faux



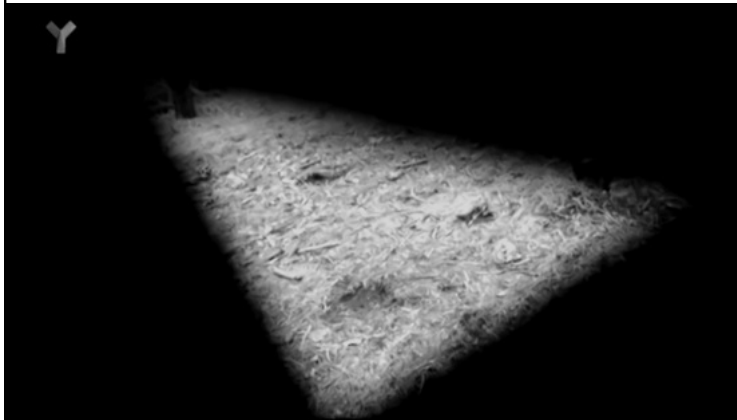
UFOs might be ...  
Extraterrestrial Spacecraft

## UFO? – ETs



# UFOs

## Rendlesham Forest



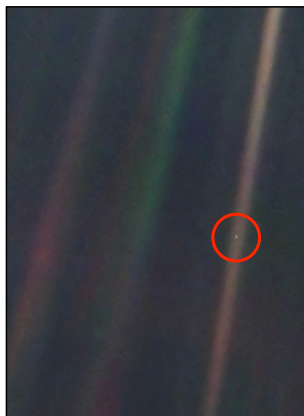
## Extraterrestrials?

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?**

## 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

