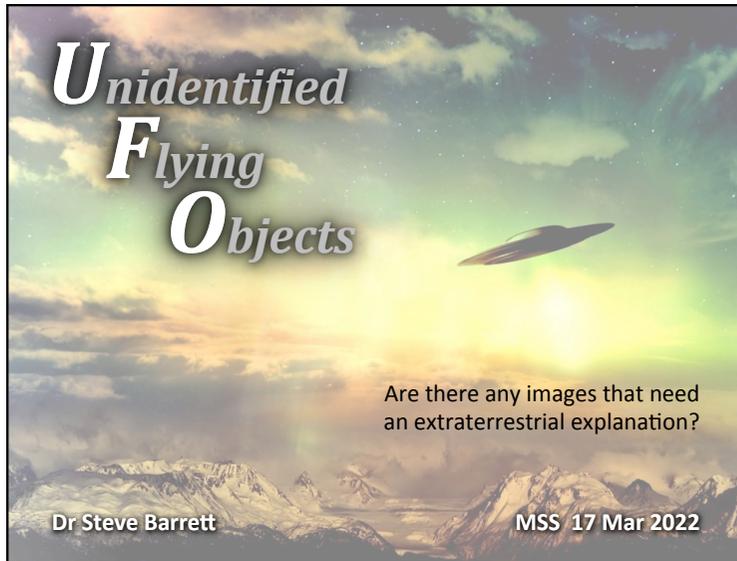


UFOs



Statistics Don't Lie

Have extraterrestrial aliens visited Earth? ✓ 40%

Are extraterrestrial aliens visiting *now*? ✓ 35%

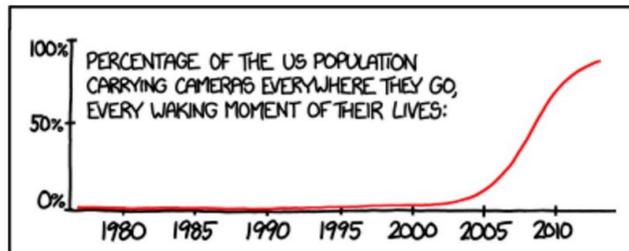
That's less than the number who believe in ghosts (60%)
but greater than telekinesis (25%)
or Bigfoot (20%)

[... 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



3

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



6

Ideal UFO



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



7

Typical UFO



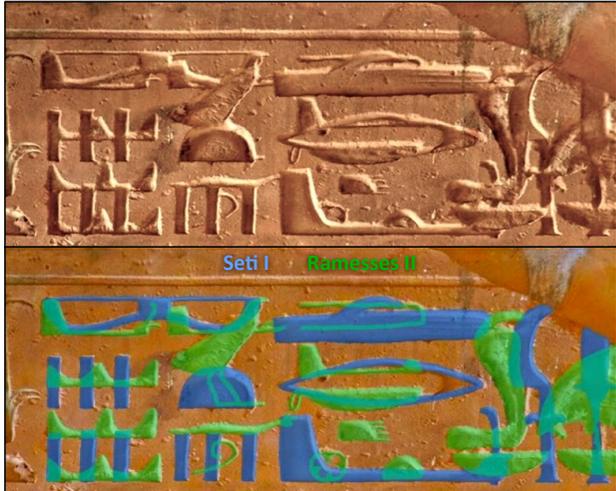
... blurred, out of focus, camera movement, over-exposed ...



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UFOs

The First UFOs?



Seti I Rameses II

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UFOs might be ...

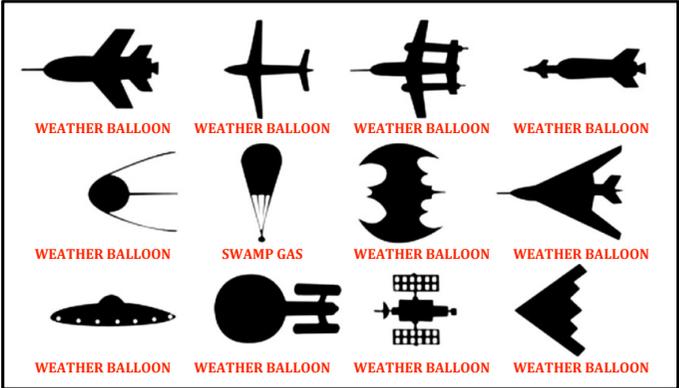
Manmade Objects



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Identifying a UFO

U.S. AIR FORCE AIRCRAFT IDENTIFICATION CHART



WEATHER BALLOON WEATHER BALLOON WEATHER BALLOON WEATHER BALLOON

WEATHER BALLOON SWAMP GAS WEATHER BALLOON WEATHER BALLOON

WEATHER BALLOON WEATHER BALLOON WEATHER BALLOON WEATHER BALLOON



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UFOs in Formation



A long exposure photo of a fleet of UFOs flying in formation?

No, it's the

'Pylon of the Month'
December 2019

www.pylonofthemonth.org



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UFOs

Space Jellyfish



Who could see this
and not think ...
UFO!

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Falcon Tails



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Rocket Trails



Seay Photography

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AZURE



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APOD 8 Apr 2019 16

UFOs

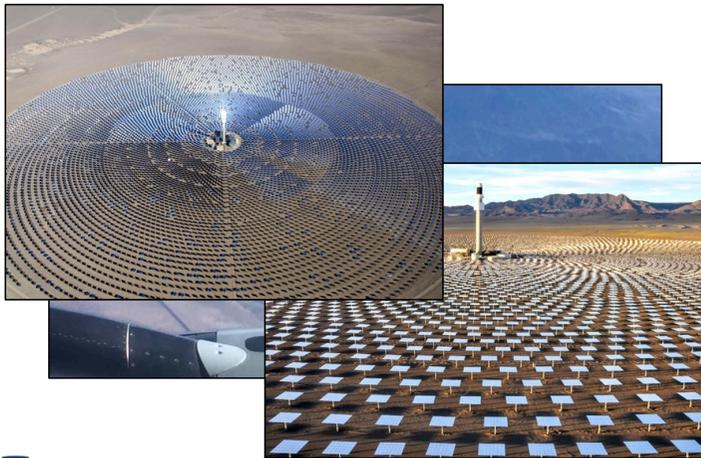
Google Loon



Strange Lights in the Sky



UFOs Landing



A Good Year For UFOs



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



Light Pillars



© www.salamapaja.fi

Light Pillars



@WisconsinWeatherPhotography @TomParryW1 @TomParryW1

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!"



still frame - enhanced

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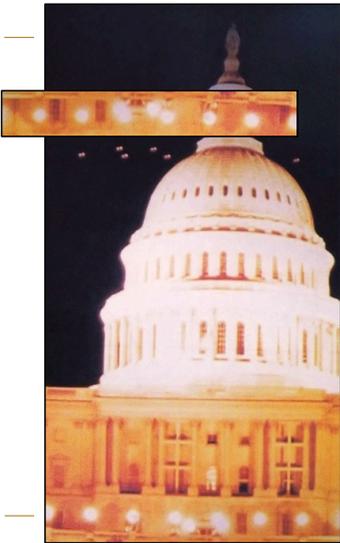
UFOs might be ...

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."



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

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UFOs

Shooting Into the Sun

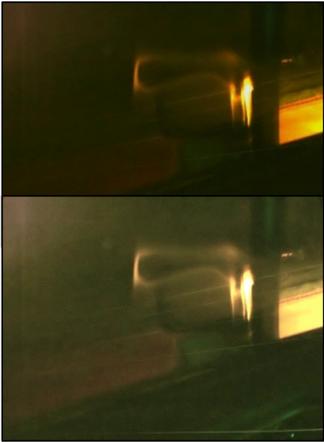


"... what is this in the sky?
It seems to have an aura
around it. Is it a UFO?"

#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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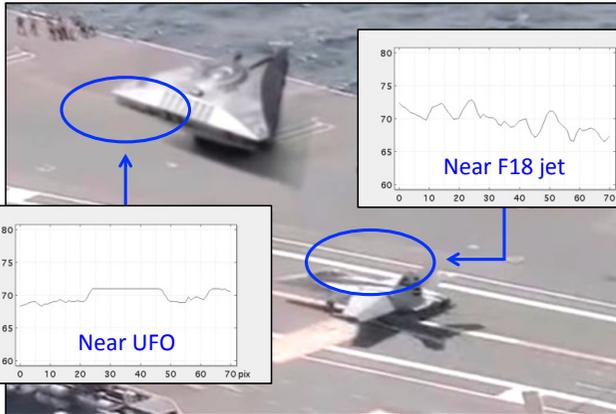
UFO? – UF Faux



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UFO? – UF Faux

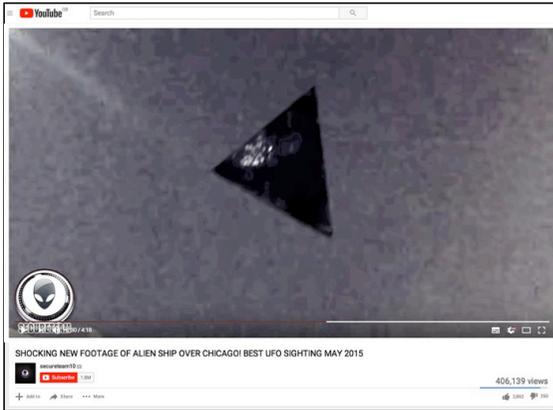


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UFOs

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



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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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Unidentified Flying Objects



www.liverpool.ac.uk/~sdb/Talks

Dr Steve Barrett

MSS 17 Mar 2022