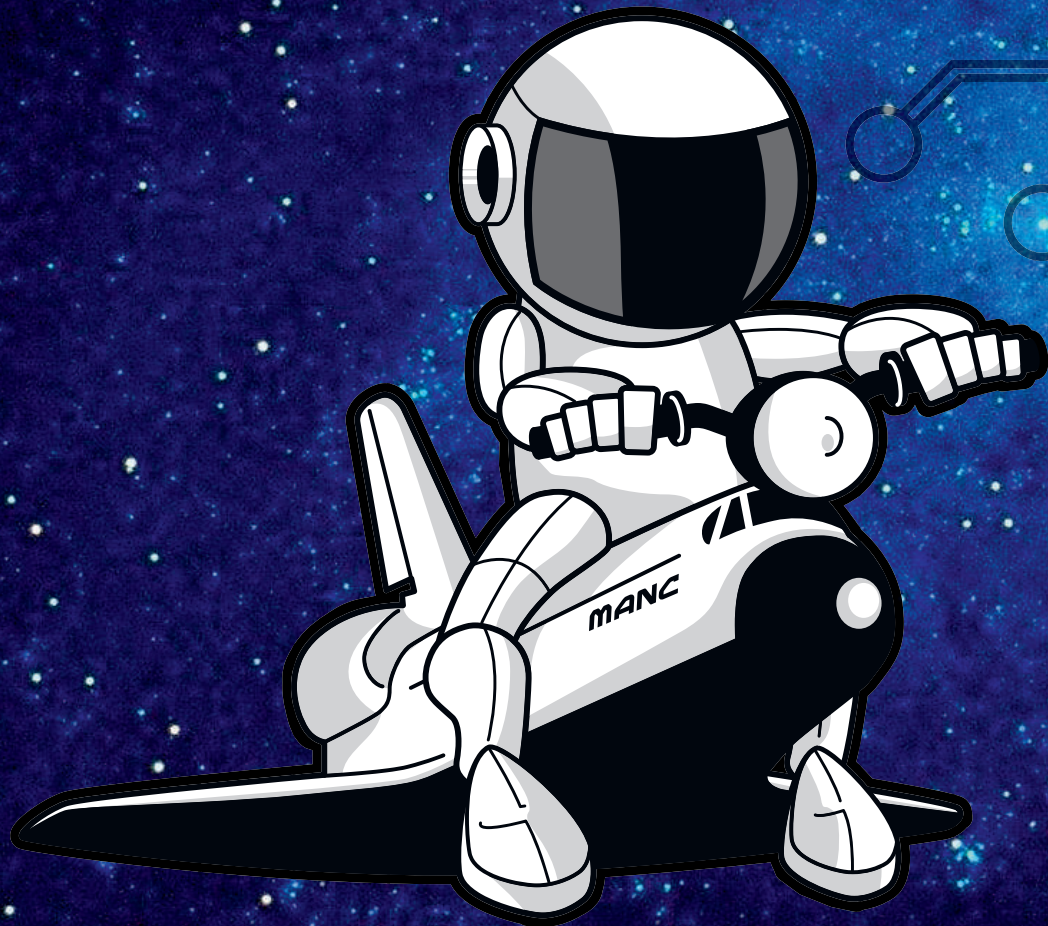
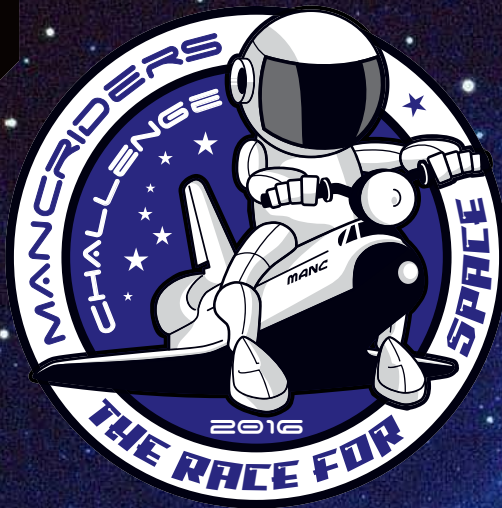


MANRIDERS

CHALLENGE 2016



**THE
RACE
FOR
SPACE**



WELCOME AND THANK YOU FOR PARTICIPATING IN THE 2016 MANCRIDERS CHALLENGE

100% of your entrance fee (£15.00) will go directly to our chosen charity which this year is *The Bike Experience*.



The Bike Experience is a charity that teaches and advises motorcyclists who have been disabled how they can ride again, through the provision of an adapted and modified motorcycle which will allow them to ride in a safe environment using a logical step-by-step process.

Once all entrants have registered, the total amount raised will be published on www.mancriders.co.uk

BRIEFING 1

SO WHAT EXACTLY HAVE YOU LET YOURSELF IN FOR?

The aim of the game is to just enjoy riding your motorcycle around the UK whilst visiting locations and events listed in this book. All the locations have a link (albeit sometimes tenuous) to Astronomy, Space Travel, Science Fact and Science Fiction etc.

Once you've docked at a location simply document your arrival with a photograph and upload that photograph to your Personal Challenge Folder at www.mancriders.co.uk – your folder will be created once you have registered for the Challenge. If you are not yet registered on the MancRiders site you will need to do so to document your photos to claim your points.

The challenge starts on the 1st February 2016 and closes on the 30th November 2016.

01/02/2016 | 30/11/2016

BRIEFING 2

WHAT YOU SHOULD HAVE RECEIVED

In the post you should have received:

THE MANCRIDERS 2016 CHALLENGE BOOK
YOUR PERSONAL RIDER CARD
MANCRIDERS 2016 CHALLENGE STICKERS

If you lose the book or card a pdf version can be re-supplied.

By email you should have received:

GARMIN GPX FILE
TOMTOM OUV2 FILE AND BMP ICONS

These files contain all the locations in the challenge. You should check that these files work accurately with your software and Sat Nav, help with be given if possible.

BRIEFING 3


CHALLENGE RULES

- 1 To verify your visit to any of the Challenge locations you need to document it with a photograph.
- 2 The photograph **MUST** clearly show:
 - the location as detailed in this book (if unavailable then use something else to prove where you are)
 - your Personal Rider Card
 - some, or all of your motorcycle **OR** your face.
- 3 The photograph **MUST** be uploaded into your Personal Challenge Folder at www.mancriders.co.uk

If you are unsure on how to upload your photograph please contact an admin at www.mancriders.co.uk

BRIEFING 4

LOCATION INFORMATION

Location Number	Point Value
MISSION 7	5 POINTS
VENUS Venus orbits the Sun every 224.7 Earth days. It is sometimes called Earth's 'sister planet.' THE VENUS RESTAURANT Falcon Square, Dinnington Sheffield S25 2PL	
Location Description	Location Image
Latitude and Longitude N 53 21.988 W 1 12.693	

BRIEFING 5

HOW POINTS ARE EARNED



If your photograph fulfils the criteria of clearly showing the location, your Personal Rider Card and some, or all, of your motorcycle **OR** your face.



Then you will be awarded the point value shown in the top-right corner of the location information box.



For events, your photograph should include something to prove you are in the right place within the right time-frame such as a sign or poster for the event.



For locations that show this **Combo Bonus** icon you will receive extra points if you also visit the location it is linked to.

For example, visiting locations **1 and 73** will earn you $5+5+5 = 15$ points.



For events that show this **Fancy Dress Bonus** icon you will receive 10 extra points if your photograph includes someone wearing a Sci-Fi fancy dress outfit.

Total
number
of points
available:

765

BRIEFING 6

RANKINGS

Rankings for the 2016 Mancriders Challenge are awarded as follows:

- PLATINUM AWARD** – 700+ Points collected
- GOLD AWARD** – 500+ Points collected
- SILVER AWARD** – 300+ Points collected
- BRONZE AWARD** – 150+ Points collected

2016 CHALLENGE WINNER

On 1st December 2016, the entrant who has collected the most points will be declared the winner of the 2016 Mancriders Challenge.

In the case of a tie-break, the winner will be decided by who collected the last points they claim, closest to the closing date of the challenge.

The winners prize and ranking awards will be awarded after the challenge has closed.

If you have any questions or problems please contact the challenge organiser Lee by emailing lee@led-design.com

**STAY SAFE, ENJOY THE RIDE
AND HAVE FUN!**

SPACE...

THE FINAL FRONTIER

INTELLIGENCE...

Space, the great umbrella of unknown above our heads, has fascinated mankind throughout history.

Our universe is a large and unimaginable expanse of dust, gas, stars, clouds, galaxies, and life. Distant worlds waiting to be explored by future space craft.

MISSION 1

SPACE

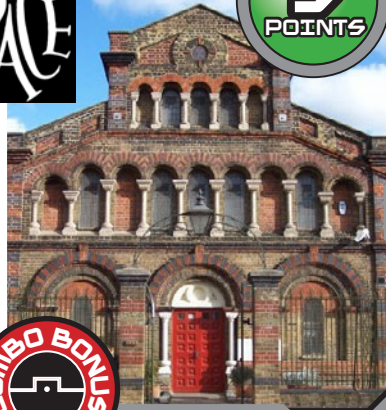
Space is the void that exists between celestial bodies that appears empty, but consists of a hard vacuum containing a low density of particles.

THE SPACE is a performing arts centre based in East London.

269 West Ferry Road
London E14 3RS

N 51 29.526 | W 0 01.470

the
SPACE



5
POINTS



MISSION 2

STAR

A star is a luminous sphere of plasma held together by its own gravity. The nearest star to Earth is the Sun.

THE STAR INN offers beer, bed and breakfast and *Heal Your Life* coaching and workshops, as well as Reiki-led Release.

Dylife, Powys SY19 7BW

N 52 31.940 | W 3 40.663



5
POINTS

OUR PLACE IN SPACE

INTELLIGENCE...

The Solar System comprises the Sun and the objects that orbit it. The largest eight objects orbiting the Sun are the planets that form our planetary system. The Solar System formed 4.6 billion years ago from the gravitational collapse of a giant interstellar molecular cloud.

MISSION 3

THE SUN

The Sun is the star at the centre of our Solar System, the most important source of energy for life on Earth. It is a nearly perfect spherical ball of hot plasma.

THE SUN INN in Kirkby Lonsdale combines the character and charm of a 17th Century inn and two AA rosette restaurant.

6 Market Street, Kirkby Lonsdale
Cumbria LA6 2AU

N 54 12.187 | W 2 35.862



MISSION 4

PLANETS

A planet is an astronomical object orbiting a star or stellar remnant. They are divided into 2 main types: large low-density giant planets, and smaller rocky terrestrials.

As of 29 May 2015, 1,928 extrasolar planets have been discovered, in 1,219 planetary systems.

PLANET AROMA
67 High Street, Blackwood
Caerphilly NP12 1BA

N 51 40.139 | W 3 11.742



OUR PLACE IN SPACE CONTINUED

MISSION 5

MERCURY

Mercury is the smallest and closest to the Sun of the planets. Mercury's core has a higher iron content than that of any other major planet in the Solar System.

MERCURY BUILDING
Aytoun Street, Manchester M1 3BL

N 53 28.765 | W 2 14.103



2
POINTS

MISSION 6

MARS

Mars was named after the Roman god of war. Mars can easily be seen from Earth with the naked eye, as can its reddish colouring.

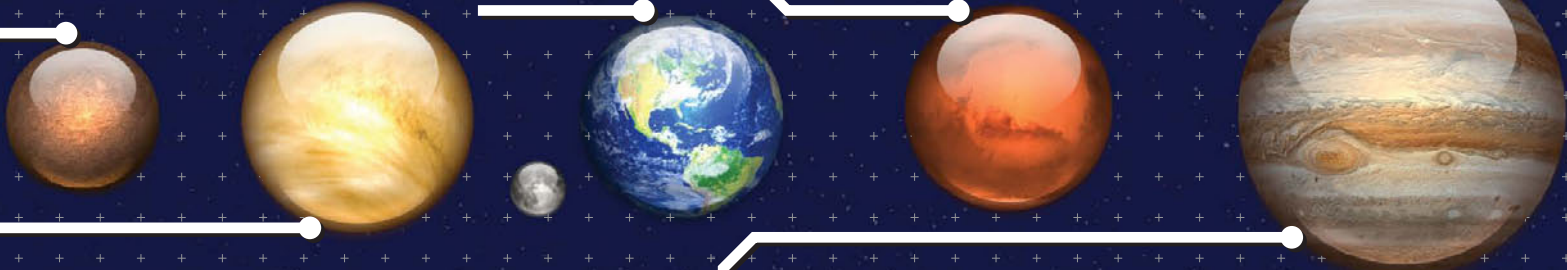
MARS FOODS Freeby Lane
Waltham-on-the-Wolds LE14 4RS

N 52 48.083 | W 0 48.725



5
POINTS

EARTH



MISSION 7

VENUS

Venus orbits the Sun every 224.7 Earth days. It is sometimes called Earth's 'sister planet.'

THE VENUS RESTAURANT
Falcon Square, Dinnington
Sheffield S25 2PL

N 53 21.988 | W 1 12.693



5
POINTS

MISSION 8

JUPITER

Jupiter is the largest planet in the Solar System. The Great Red Spot, a giant storm on the surface, is known to have existed since at least the 17th century.

JUPITER STREET
Stoke-on-Trent ST6 1PD

N 53 02.984 | W 2 10.589



5
POINTS



OUR PLACE IN SPACE CONTINUED

MISSION 9

SATURN

Saturn has a prominent ring system that consists of 11 arcs. 62 moons are known to orbit Saturn.

SATURN MOTOR COMPANY
127 Sedgley Road West
Dudley DY1 4LL



N 52 31.946 | W 2 05.456

MISSION 10

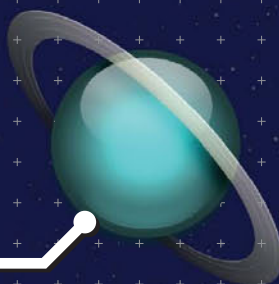
NEPTUNE

Neptune is the most dense of the gaseous planets. Neptune is categorised as an 'ice giant.'

NEPTUNE RESTAURANT
85 Old Hunstanton Road
Norfolk PE36 6HZ



N 52 57.062 | E 0 30.557



MISSION 11

URANUS

Uranus is the coldest planetary atmosphere in the Solar System, with a minimum temperature of -224.2°C .

URANUS ROAD
Hemel Hempstead
Hertfordshire HP2 5QF



N 51 45.748 | W 0 27.399

MISSION 12

PLUTO

'Planet X' was searched for, and discovered, by Percival Lowell in 1930. Over 1,000 name suggestions were received, he settled on Pluto.

PLANET X BIKES
68 West Street, Worsbrough
Barnsley S70 5DJ

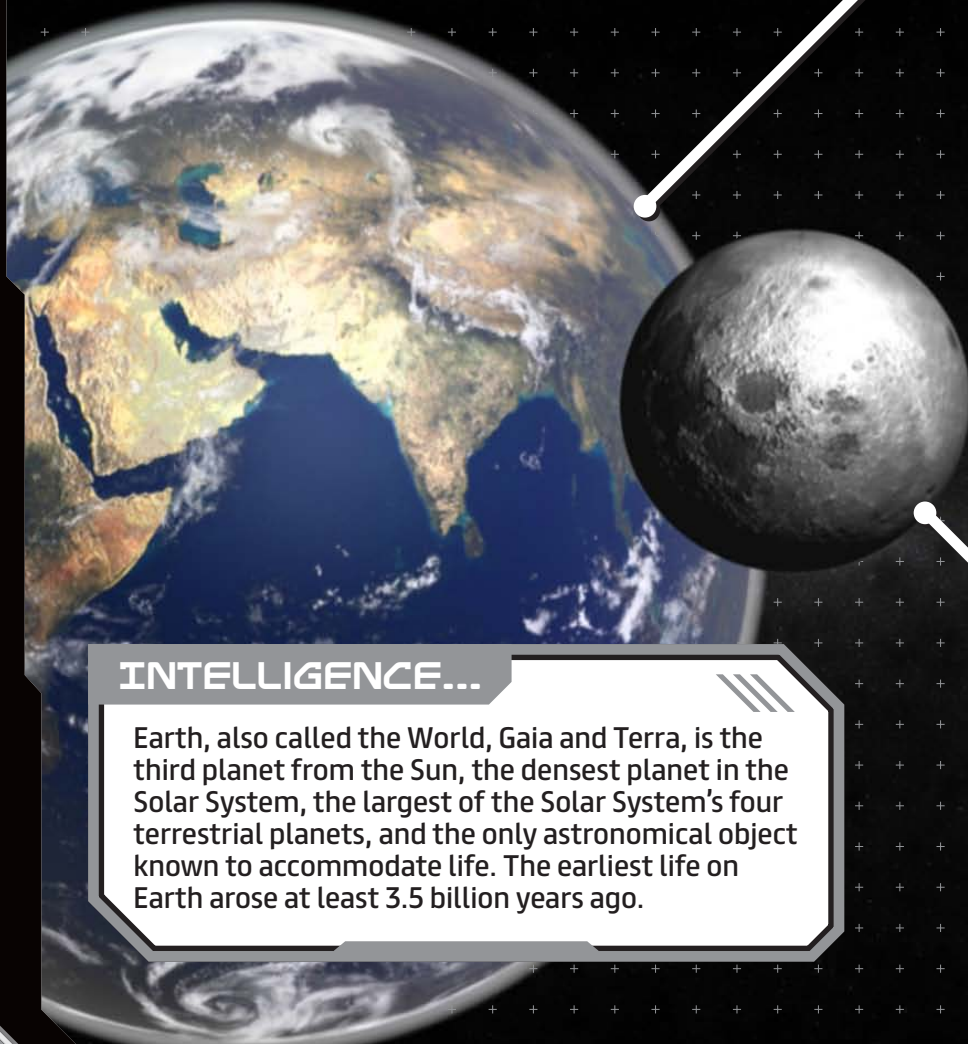


N 53 31.636 | W 1 28.008



EARTH...

OUR HOME



INTELLIGENCE...

Earth, also called the World, Gaia and Terra, is the third planet from the Sun, the densest planet in the Solar System, the largest of the Solar System's four terrestrial planets, and the only astronomical object known to accommodate life. The earliest life on Earth arose at least 3.5 billion years ago.

MISSION 13

EARTH

Earth's lithosphere is divided into several rigid tectonic plates that migrate across the surface over periods of many millions of years.

MIDDLE EARTH TAVERN

A historic tavern set beside Whitby's beautiful harbour.

25-26 Church Street
Whitby YO22 4AE

N 54 29.030 | W 0 36.579



MISSION 14

THE MOON

The Moon is thought to have formed approximately 4.5 billion years ago, not long after Earth.

The Moon is in synchronous rotation with Earth, always showing the same face.

MOONSHINERS HOMEBREW AND PET SHOP

14 Heol Pentrerhedyn
Machynlleth SY20 8DN

N 52 35.395 | W 3 51.196



PIONEER PEOPLE

INTELLIGENCE...

Astronomy is the study of celestial objects and one of the oldest sciences. The early civilizations in recorded history, such as the Babylonians, Greeks, Indians, Egyptians, Nubians, Iranians, Chinese, and Maya performed methodical observations of the night sky.

Before tools such as the telescope were invented, early study of the stars was conducted using the naked eye.

Astronomy is one of the few sciences where amateurs can still play an active role.

MISSION 15

GALILEO GALILEI

Galileo is known as *The father of modern observational astronomy, modern physics, science and modern science!*

His advocacy of heliocentrism saw him tried and ordered to spend the last 9 years of his life under house arrest.

GALILEO GARDENS
Cheltenham
Gloucestershire GL51 0GA

N 51 54.018 | W 2 07.665



5
POINTS



MISSION 16

SIR ISAAC NEWTON

Sir Isaac Newton is widely recognised as one of the most influential scientists of all time. He formulated the laws of motion and universal gravitation.

KING'S SCHOOL

Two blue plaques honouring Newton have been erected at his old school in Lincolnshire.

Brook Street, Grantham NG31 6RP

N 52 54.965 | W 0 38.533



5
POINTS



PIONEER PEOPLE CONTINUED

MISSION 17

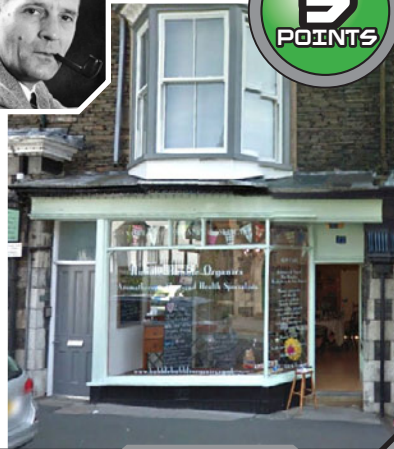
EDWIN HUBBLE

Hubble is known for providing evidence that objects classified as 'nebulae' were actually galaxies beyond the Milky Way.

HUBBLE BUBBLE ORGANICS

100% Organic Skincare handmade in the Lake District.

22 Lake Road
Bowness on Windermere
LA23 3BZ

5
POINTS

N 54 22.019 | W 2 54.973

MISSION 18

SIR WILLIAM HERSCHEL

On 13 March 1781 Herschel discovered the planet Uranus.

HERSCHEL MUSEUM OF ASTRONOMY

The Herschel Museum of Astronomy is dedicated to the many achievements of the Herschels.

19 New King Street, Bath BA1 2BL

5
POINTS

N 51 22.956 | W 2 22.013

MISSION 19

SIR PATRICK MOORE

Sir Patrick Moore was presenter of the world's longest-running television series with the same original presenter, the BBC's *The Sky at Night*. He was a self-taught xylophone and glockenspiel player.

FARTHINGS

For more than 40 years, Moore lived and worked at Farthings
39 West Street, Selsey PO20 9AD

5
POINTS

N 50 43.871 | W 0 47.799



MISSION 20

BRIAN COX

Before his academic career as a physicist and scientific TV productions, Cox was the keyboard player in *D:Ream*.

OLDHAM HULME GRAMMAR SCHOOL

Cox attended this independent school from 1979-1986.

Chamber Road, Oldham OL8 4BX

5
POINTS

N 53 31.735 | W 2 07.293

LOOKING FOR AN ANSWER

INTELLIGENCE...

Ground-based observatories, located on the surface of Earth, are used to make observations in the radio and visible light portions of the electromagnetic spectrum. Most optical telescopes are housed within a dome or similar structure, to protect the delicate instruments from the elements.

Specific research study performed in 2009 shows that the best possible location for ground-based observatory on Earth is Ridge A – a place in the central part of Eastern Antarctica.



MISSION 21

THE ROYAL OBSERVATORY (GREENWICH)

The Royal Observatory, home of Greenwich Mean Time and the Prime Meridian line, is one of the most important historic scientific sites in the world. Founded by Charles II in 1675, it is the official starting point for each new day, year and millennium.

Blackheath Avenue, London SE10 8XJ

N 51 28.610 | E 0 00.000



5 POINTS

COMBO BONUS
10 POINTS FOR BOTH MISSIONS

MISSION 22

THE ROYAL OBSERVATORY (EDINBURGH)

The Royal Observatory, Edinburgh is unique among UK scientific establishments in that it houses on a single site, a university astronomy research group, an establishment of a UK Research Council and a Visitor Centre.

Blackford Hill View
Edinburgh EH9 3HJ

N 55 55.372 | W 3 11.201



5 POINTS



LOOKING FOR AN ANSWER CONTINUED

MISSION 23

SCOTTISH DARK SKY OBSERVATORY

The Scottish Dark Sky Observatory occupies a fantastic hilltop site on the edge of the Galloway Forest Dark Sky Park, the first Dark Sky Park in the UK and Europe, which was awarded Gold-tier status by the International Dark-Sky Association.

Craigengillan, Dalmellington
East Ayrshire

N 55 17.525 | W 4 24.413



5
POINTS

MISSION 24

THE OBSERVATORY SCIENCE CENTRE

Spectacular hands-on science and discovery among the domes and telescopes of a world famous astronomical observatory.

The centre is housed on the old site of the Royal Greenwich Observatory.

Herstmonceux, Hailsham
East Sussex BN27 1RN

N 50 52.115 | E 0 20.934



5
POINTS

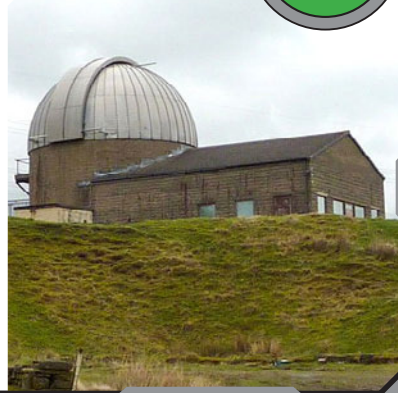
MISSION 25

THE ASTRONOMY CENTRE

The Astronomy Centre is a major resource for amateur astronomers and the general public. The site offers a compromise, providing a reasonably dark site, while remaining close to major population centres.

Woodlands View
Todmorden OL14 7HP

N 53 42.666 | W 2 09.238



5
POINTS

MISSION 26

KIELDER OBSERVATORY

Kielder Observatory is a public outreach astronomical facility located in Kielder Forest, in some of the darkest skies in Europe and the third largest protected Dark Sky reserve in the world. It is one of the best places in the UK to view the Milky Way.

Black Fell, off Shilling Pot, Kielder
Northumberland NE48 1EJ

N 55 13.930 | W 2 36.969



5
POINTS

LOOKING FOR AN ANSWER CONTINUED

MISSION 27

JODRELL BANK

The Jodrell Bank Observatory hosts a number of radio telescopes, and is part of the Jodrell Bank Centre for Astrophysics at the University of Manchester.

It was established in 1945 by Sir Bernard Lovell.

Jodrell Bank Observatory
Macclesfield, Cheshire SK11 9DW



2
POINTS

N 53 14.526 | W 2 18.408

MISSION 28

WYNYARD PLANETARIUM AND OBSERVATORY

The Planetarium and Observatory are invaluable education resources of Teesside Astronomical Science Centre. They were opened in 1994 by the 14th Astronomer Royal, Professor Sir Arnold Wolfendale.

Station House, Thorpe Thewles
Stockton-on-Tees TS21 3JG



5
POINTS

N 54 36.692 | W 1 22.586

MISSION 29

KEELE OBSERVATORY

Keele Observatory was founded in 1962 to host a 31cm refractor dating back to 1874. It is always been open to the public (Tuesday evening and Saturday afternoons).

Keele university, Stoke-on-Trent
Staffordshire ST5 5NL

Use Access Road 16, then
Observatory Walk, to get there.



5
POINTS

N 53 00.326 | W 2 16.035

MISSION 30

ROSELAND OBSERVATORY

Roseland Observatory is located in Court Farm, one mile south-east of St Stephen-in-Brannel, in central Cornwall. The observatory was started by Clive Purchase in 1998 to prepare for the Cornish eclipse in 1999.

Court Farm Holiday Camp Site
St Stephen, Mid Cornwall PL26 7LE



5
POINTS

N 50 20.216 | W 4 52.523

ORGANISATIONS

MISSION 31

CAMPAIGN FOR DARK SKIES

The CfDS aims to preserve and restore the beauty of the night sky by campaigning against excessive, inefficient and irresponsible lighting.

EXMOOR NATIONAL PARK was designated the first Dark Sky Reserve in Europe.

Dunster National Park Centre
Dunster, Minehead, TA24 6SE

N 51 11.120 | W 3 26.584



5
POINTS

MISSION 32

UK SPACE AGENCY

The UK Space Agency is at the centre of space research in the UK. They are responsible for all strategic decisions on the UK civil space programme and provide a clear, single voice for UK space ambitions.

Polaris House, North Star Avenue
Swindon, Wiltshire SN2 1SZ.

N 51 33.970 | W 1 47.233



5
POINTS

MISSION 33

NATIONAL SPACE CENTRE

The *National Space Centre* is one of the UK's leading visitor attractions that is devoted to space science and astronomy.

Exploration Drive
Leicester LE4 5NS

N 52 39.248 | W 1 07.968



5
POINTS

MISSION 34

BRITISH INTERPLANETARY SOCIETY

The British Interplanetary Society is devoted to initiating, promoting and disseminating new concepts and technical information about space flight and astronautics.

27-29 South Lambeth Road
London SW8 1SZ

N 51 29.060 | W 0 07.378



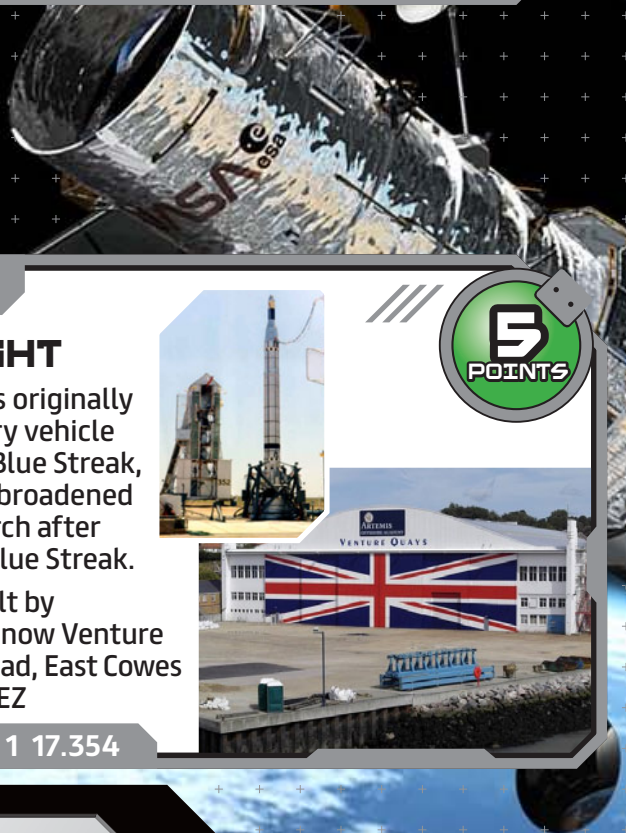
5
POINTS

SPACE TRAVEL

INTELLIGENCE...

Space exploration is the ongoing discovery and exploration of celestial structures in outer space by means of continuously evolving and growing space technology.

After the first 20 years of exploration, focus has shifted from one-off flights to renewable hardware, and from competition to cooperation with the International Space Station (ISS).



MISSION 35

BLUE STREAK

Blue Streak was a British missile which became the first stage of the Europa satellite launch vehicle.

One of the remaining Blue Streak missiles is on display at the **NATIONAL MUSEUM OF FLIGHT** East Fortune Airfield East Lothian EH39 5LF

N 55 59.634 | W 2 43.469



5
POINTS



MISSION 36

BLACK KNIGHT

The Black Knight was originally designed as a re-entry vehicle for the warhead for Blue Streak, but the programme broadened out into wider research after the cancellation of Blue Streak.

Black Knight was built by **SAUNDERS ROE** (now Venture Quays) Columbine Road, East Cowes Isle of Wight PO32 6EZ

N 50 45.631 | W 1 17.354



5
POINTS

MISSION 37

BLACK ARROW

The Black Arrow's final flight was the first, and only, successful orbital launch to be conducted by the UK.

Black Arrow is on display in the Science Museum, with the stages and fairing separated, and a mock-up of the Prospero satellite.

THE SCIENCE MUSEUM Exhibition Road, London SW7 2DD

N 51 29.854 | W 0 10.443



5
POINTS



SPACE TRAVEL CONTINUED

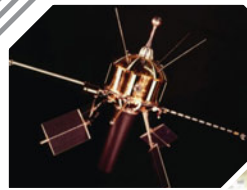
MISSION 38

ARIEL SATELLITES

Ariel was a British satellite programme conducted between the 1960s and 1980s. 6 satellites were launched as part of the programme. All launches were conducted using American rockets; Ariel 1 on a Thor-Delta, and the remainder on Scouts.

ARIEL 3 MUSEUM
167 Winchester Road, Brislington
Bristol BS4 3NJ (rear of Dental Centre)

N 51 26.169 | W 2 33.193



5
POINTS

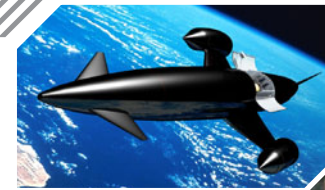
MISSION 39

SKYLON

Skylon is an unpowered, reusable spaceplane intended to provide reliable, responsive and cost effective access to space. It is being designed by the UK company Reaction Engines.

SKYLON AERIAL AND SATELLITES
77 Church Street
Guisborough TS14 6HG

N 54 32.224 | W 1 02.966



5
POINTS



MISSION 40

SPUTNIK

The word Sputnik means 'Fellow Traveller.'

Sputnik 1 was the first artificial Earth satellite launched by the Soviet Union in 1957.

There is a replica of Sputnik 1 at **LIVERPOOL'S WORLD MUSEUM**
William Brown Street
Liverpool L3 8EN

N 53 24.567 | W 2 58.902



5
POINTS

MISSION 41

TELSTAR

Telstar 1 successfully relayed through space the first television pictures, telephone calls, fax images and provided the first live transatlantic television feed.

The main British ground station for Telstar was at Goonhilly Downs.
GOONHILLY EARTH STATION
Helston, Cornwall TR12 6LQ

N 50 02.955 | W 5 10.682



5
POINTS



SPACE TRAVEL CONTINUED

MISSION 42.1 TO 42.17

153
POINTS

APOLLO

The Apollo program was the third United States human spaceflight program carried out by the NASA, which ran from 1961 to 1972.

Apollo stands alone in sending manned missions beyond low Earth orbit and the final Apollo 17 mission marked the 6th Moon landing.

Visit 17 locations of your choice which have **APOLLO** in the name, each location is worth 1 more point than the last. Some suggestions:

APOLLO COURT
York YO10 5BA



N 53 57.093 | W 1 04.197

APOLLO CLOSE
Hornchurch
Greater London
RM12 4JU



N 51 33.601 | E 0 11.917

APOLLO ROAD
Oldbury
West Midlands
B68 9RS



N 52 29.823 | W 1 59.758

02 APOLLO
Stockport Road
Ardwick Green
Manchester M12 6AP



N 53 28.173
W 2 13.363

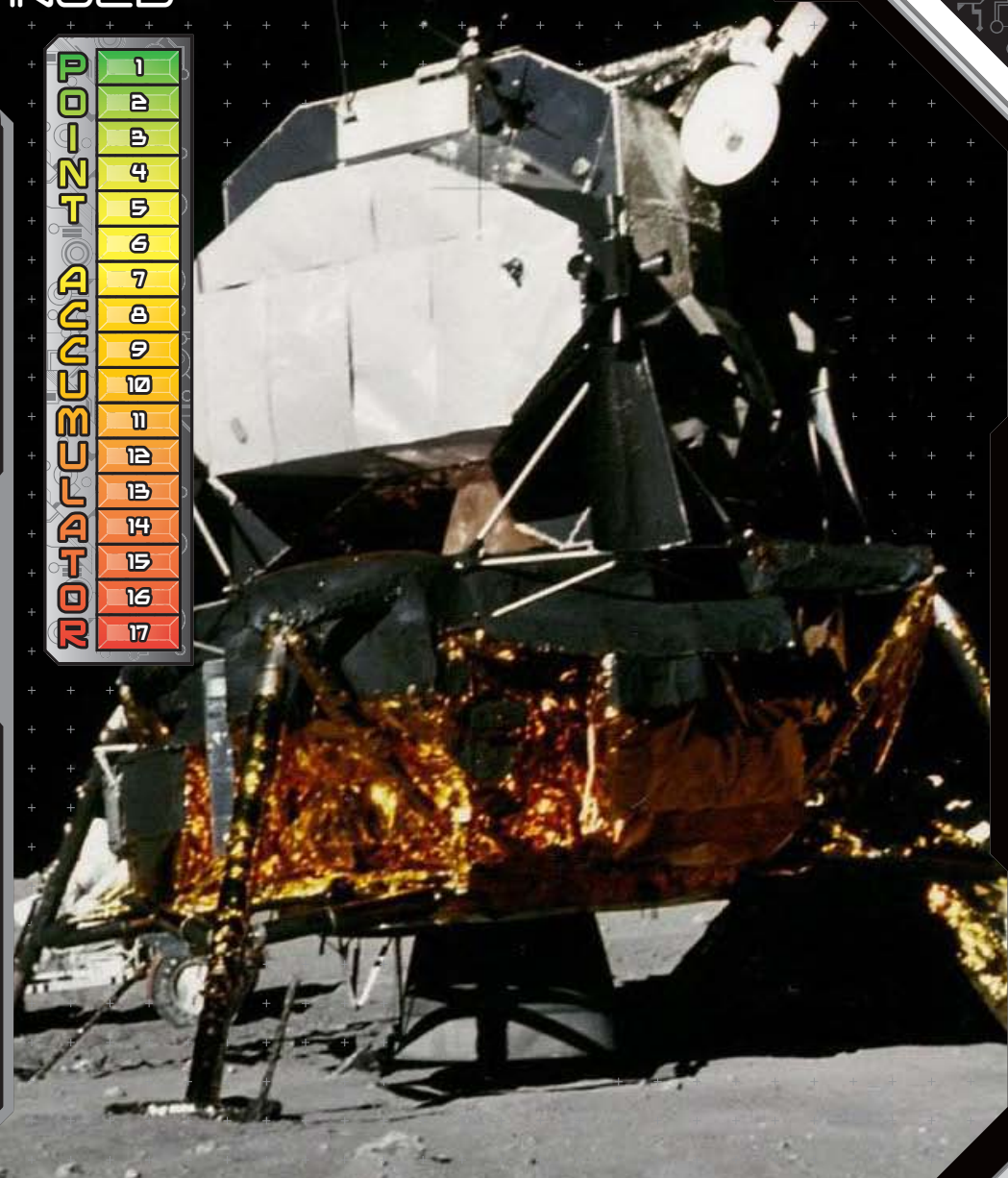
APOLLO BANANA LEAF
Tooting High Street
London SW17 0SF



N 51 25.439
W 0 10.320

ROUNDOFF POINT

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17



SPACE TRAVEL CONTINUED

INTELLIGENCE...

The Space Shuttle program was the United States' manned launch vehicle program from 1981 to 2011.

The winged Space Shuttle orbiter was launched vertically, usually carrying 4 to 7 astronauts and up to 50,000 lb of payload into low Earth orbit. When its mission was complete, the Shuttle could independently move itself out of orbit and re-enter the Earth's atmosphere. During descent and landing the orbiter acted as a re-entry vehicle and a glider.



MISSION 43

ENTERPRISE

Enterprise was the first Space Shuttle, built to perform test flights in the atmosphere, aided by a modified Boeing 747. It had no engines or heat shield, and was therefore not capable of spaceflight.

ENTERPRISE MOTORS
Enterprise Way, Pickering Y018 7NA

N 54 14.192 | W 0 45.489



MISSION 44

COLUMBIA

Columbia launched for the first time on 12 April 1981, the first flight of the Space Shuttle program.

Over 22 years of service it completed 27 missions.

COLUMBIA WAY
Blackburn BB2 7DT

N 53 45.846 | W 2 30.350



SPACE TRAVEL CONTINUED

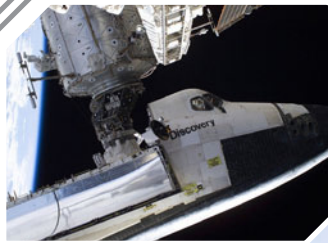
MISSION 45

DISCOVERY

Discovery (Orbiter Vehicle Designation: OV-103) launched and landed 39 times – more spaceflights than any other spacecraft.

Discovery delivered the Hubble Space Telescope into orbit.

**SHROPSHIRE HILLS
DISCOVERY CENTRE**
Craven Arms SY7 9RS

5
POINTS

N 52 26.275 | W 2 49.988

MISSION 46

CHALLENGER

In 1986 Challenger sadly disintegrated 73 seconds after launch. An O-ring seal in its right solid rocket booster failed at lift-off. This resulted in the death of all 7 crew members. The disaster resulted in a 32-month grounding of the shuttle program.

CHALLENGER
Warwick Street, Hull HU9 1ET.

5
POINTS

N 53 44.778 | W 0 19.183

MISSION 47

**INTERNATIONAL
SPACE STATION
(ISS)**

The ISS is now the largest artificial body in orbit and can often be seen with the naked eye from Earth. One of the ISS' many modules is the Cupola, a seven window observatory.

CUPOLA GALLERY
178 Middlewood Road,
Hillsborough, Sheffield S6 1TD

5
POINTS

N 53 24.652 | W 1 30.262

MISSION 48

VIRGIN GALACTIC

Virgin Galactic is developing commercial spacecraft and aims to provide sub-orbital spaceflights to space tourists

LLANBEDR AIRPORT
is 1 of 6 potential locations shortlisted for developing a UK spaceport which would be Virgin Galactic's UK launch site.
Llanbedr LL45 2PX

5
POINTS

N 52 49.096 | W 4 07.149

ASTRONAUTS

INTELLIGENCE...

An astronaut (or cosmonaut) is a person trained by a human space-flight program to command, pilot, or serve as a crew member of a spacecraft.

As of 8 June 2013, a total of 529 people from 36 countries have reached low Earth orbit or beyond.

The youngest person to fly in space is Gherman Titov, who was 25 years old when he flew Vostok 2. The oldest is John Glenn, who was 77 when he flew on STS-95.



MISSION 49

LAIKA

Laika was a Soviet space dog who became one of the first animals in space, and the first animal to orbit the Earth.

LAIKA DOG are a Keighley-based rock band, regular performers at **THE EXCHANGE ARTS CENTRE** Russell Street, Keighley BD21 2JZ.

N 53 52.010 | W 1 54.806



MISSION 50

YURI GAGARIN

Yuri Alekseyevich Gagarin was the first human to journey into outer space when his Vostok spacecraft completed an orbit of the Earth on 12 April 1961.

GAGARIN
Tamworth
Staffordshire B79 7TP

N 52 38.148 | W 1 42.753



ASTRONAUTS CONTINUED

MISSION 51

NEIL ARMSTRONG

Neil Armstrong was the first person to walk on the Moon. Before becoming an astronaut, Armstrong was an officer in the U.S. Navy and served in the Korean War.

ARMSTRONG OPTICAL
Northampton Science Park
Kings Park Road, Moulton Park
Northampton NN3 6LG



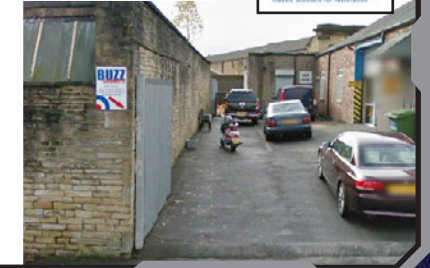
N 52 16.612 | W 0 52.639

MISSION 52

BUZZ ALDRIN

Buzz Aldrin is an American engineer and former astronaut, and the second person to walk on the Moon. He was the Lunar Module Pilot on Apollo 11, the first manned lunar landing in history.

BUZZSOLOMOTO
Unit 3, Chapeltown
Halifax HX1 5SR



N 53 43.438 | W 1 51.921

MISSION 53

HELEN SHARMAN

Helen Patricia Sharman OBE, was the first Briton in space and the first woman to visit the Mir Space Station in 1991.

She was born in Grenoside, Sheffield where she attended Grenoside Junior and Infant School.

**GRENOSIDE COMMUNITY
PRIMARY SCHOOL**
Norfolk Hill, Grenoside
Sheffield S35 8QB



N 53 26.550 | W 1 30.108

MISSION 54

TIMOTHY PEAK

Chichester-born astronaut Tim Peake will be the first UK astronaut in space for more than 20 years.

He is currently living and working on the ISS where he is carrying out a science programme.

**CHICHESTER HIGH SCHOOL
FOR BOYS**
Kingsham Road, Chichester
West Sussex PO19 8AE



N 50 49.869 | W 0 46.613

ASTRONAUTS CONTINUED

MISSION 55

MICHAEL FOALE

Colin Michael Foale was the first Briton to perform a space walk.

He is a veteran of 6 space shuttle missions and has had extended stays on both Mir and the International Space Station (ISS).

MICHAEL FOALE LANE
Louth, Lincolnshire LN11 0GT.



N 53 22.394 | E 0 00.091

MISSION 56

PIERS SELLERS

Piers John Sellers is a veteran of three space shuttle missions, during which he has logged over 559 hours in space, including almost 41 EVA (Extravehicular Activity) hours in 6 spacewalks.

In 1981 he gained a doctorate in biometeorology from the **UNIVERSITY OF LEEDS**
Woodhouse Lane, Leeds
West Yorkshire LS2 9HE



N 53 48.473 | W 1 33.131

MISSION 57

NICHOLAS PATRICK

Saltburn-born Nicholas was the fifth Briton to go into space.

In 2004 he served as an aquanaut during the NEEMO 6 mission aboard the Aquarius underwater laboratory, living and working underwater for ten days.

THE SHIP INN
Saltburn Road
Saltburn-by-the-Sea TS12 1HF



N 54 35.103 | W 0 57.923

MISSION 58

GREGORY JOHNSON

Gregory Harold 'Box' Johnson is a retired colonel in the United States Air Force and a veteran of two space flights. On his first mission, he delivered the Kibo module and Dextre robot arm to the ISS.

Johnson was born in 1962 in South Ruislip, Middlesex.

JJ MOONS 12 Victoria Road
Ruislip, Middlesex HA4 0AA



N 51 34.405 | W 0 24.789



UK AEROSPACE

INTELLIGENCE...

The UK is a world-leading manufacturer, supplier and provider of space hardware, navigation and communication equipment and satellite services. The sector represents a significant opportunity for growth in a globally competitive market, as dependence on Space-based infrastructure for commercial and military application continues to develop around the world.

UK technology is now in orbit around Saturn, Mars, Venus and the Moon, as well as aboard satellites orbiting the Earth. The sector contributes about £9bn to the UK economy.

MISSION 59

THE SPACE TECHNOLOGY CENTRE



The Space Technology Centre, at the University of Dundee, has led world-leading research on spacecraft technology for 10 years.

UNIVERSITY OF DUNDEE
Queen Mother Building
Park Wynd, Dundee DD1 4HN



N 56 27.512 | W 2 58.928

MISSION 60

STARCHASER INDUSTRIES



Starchaser Industries develop and launch rockets. In 2001 they launched the largest rocket to have flown from the UK. The Starchaser outreach team visits over 200 schools and engages with over 150,000 school children every year.

Unit 7, Hyde Point, Dunkirk Lane
Hyde, Cheshire SK14 4NL



N 53 27.588 | W 2 05.483

MISSION 61

SURREY SATELLITE TECHNOLOGY LTD



Surrey Satellite Technology Ltd (SSTL) is the world's leading small satellite company with an innovative approach to space engineering.

Stephenson Road
Surrey Research Park
Guildford, Surrey GU2 7YE



N 51 14.526 | W 0 37.061



UK AEROSPACE CONTINUED

MISSION 62



AIRBUS DEFENCE & SPACE

Airbus Defence and Space is the division of Airbus Group responsible for defence and aerospace products and services. Airbus Defence and Space was formed in January 2014 from Airbus Military, Astrium and Cassidian.

Gunnels Wood Road, Stevenage Hertfordshire SG1 2AS



N 51 53.974 | W 0 12.755

MISSION 63



CLYDE SPACE

Clyde Space is a leading supplier of CubeSat, Nanosatellite, Small Satellite and spacecraft systems.

The UK Space Agency's first mission, the first satellite ever designed and built in Scotland, and Clyde Space's first complete platform was successfully launched on 8th July 2014.

Skypark 5, 45 Finnieston Street Glasgow G3 8JU.



N 55 51.736 | W 4 16.834

MISSION 64

SCIENCE AND TECHNOLOGY FACILITIES COUNCIL

The Science and Technology Facilities Council (STFC) support an academic community of around 1,700 in particle physics, nuclear physics, and astronomy.

BOULBY UNDERGROUND SCIENCE FACILITY
Boulby Mine, Loftus Cleveland TS13 4UZ



N 54 33.453 | W 0 49.207

MISSION 65

REACTION ENGINES

Driven by an extensive and pioneering technology programme, Reaction Engines have made breakthroughs in aerospace technology that is allowing the development of engines that will propel aircraft at speeds of up to five times the speed of sound or directly into Earth orbit.

CULHAM SCIENCE CENTRE
Abingdon, Oxfordshire OX14 3DB



N 51 39.188 | W 1 13.699



STAR SOUNDS

INTELLIGENCE...

Music has been influenced by the concept of outer space throughout history, both in instrumental and vocal pieces.

Pythagoras believed in something called the "harmony of the spheres". He believed that since planets and the stars all moved in the universe according to mathematical equations that these mathematical equations could be translated into musical notes and thus produce a symphony.

This idea was explored further throughout Western history under the theories of Musica universalis.

MISSION 66

GUSTAV HOLST

The Planets, is a 7 movement orchestral suite by composer Gustav Holst. Each movement of the suite is named after a planet of the Solar System and its corresponding astrological character as defined by Holst.



GUSTAV HOLST BIRTHPLACE MUSEUM 4 Clarence Road Cheltenham, Gloucestershire GL52 2AY



N 51 54.249 | W 2 04.227

MISSION 67

PUBLIC SERVICE BROADCASTING

PSB's second album *The Race for Space* has all its songs themed on Space Travel. They use samples from old public information films, archive footage and propaganda material.



Their debut gig was in 2009 at **THE SELKIRK** 60 Selkirk Road London SW17 0ES



N 51 25.812 | W 0 10.176



STAR SOUNDS CONTINUED

MISSION 68

DAVID BOWIE

Bowie has truly embraced the heavens with songs such as *Space Oddity*, *Starman*. His androgynous alter-ego Ziggy Stardust also had many encounters with the Spiders from Mars.

THIN WHITE DUKE
1 Devonshire Street
Carlisle CA3 8LG



N 54 53.570 | W 2 56.039

MISSION 69

THE POLICE

Walking on the Moon was a number 1 hit for The Police, originally released in 1979.

The song has been covered by numerous others including William Shatner.

Sting, lead vocalist and bassist with The Police, attended **ST CUTHBERTS SCHOOL**
Gretna Road, Newcastle NE15 7PX.



N 54 58.712 | W 1 40.617

MISSION 70

BABYLON ZOO

Babylon Zoo were a rock band from Wolverhampton, founded in 1992, fronted by Jas Mann.

They are best remembered for the hit single *Spaceman* which hit the No 1 slot in 20 countries. With no follow-up success, the band has the legacy of a one hit wonder.

DUDLEY ZOO Castle Hill, Dudley
West Midlands DY1 4QF



N 52 30.784 | W 2 04.653

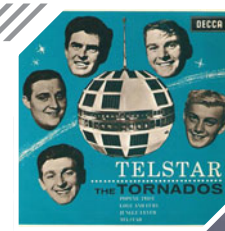
MISSION 71

THE TORNADOS

The Tornados instrumental hits included *Telstar* a number 1 hit in the UK and US.

Rhythm guitarist George Bellamy is the father of Matthew Bellamy, the front man for rock band Muse.

A Tornado aircraft is on display at **THE ROYAL AIR FORCE MUSEUM LONDON**
Grahame Park Way
London NW9 5LL



N 51 35.857 | W 0 14.350



STAR SOUNDS CONTINUED

MISSION 72

ASH

Girl from Mars was a single by Ash, the second to be released from the album 1977.

The track has been used by NASA as the hold music on their telephone lines.

ASH STATION

Ash Church Road, Ash
Aldershot GU12 6BE



N 00 00.000 | W 0 00.000

MISSION 73

SPACE

In 2002, Space, an indie rock band from Liverpool, known for their over-the-top, dark humoured lyrics, which dealt with subjects such as serial killers, failed relationships and mental illness, offered 6 songs for download, under the title *Music for Aliens*.

SPACEPORT Victoria Place
Seacombe, Wallasey
Wirral CH44 6QY



N 53 24.569 | W 3 01.030



MISSION 74

MUSE

Muse's 2006 album *Black Holes and Revelations* contains the tracks *Starlight* and *Supermassive Black Hole*.

Their latest album, *Drones* uses brainwashing and loss of empathy as a metaphor for autonomous killing drones.

The members of Muse met at
TEIGNMOUTH COMMUNITY
SCHOOL Exeter Road
Teignmouth TQ14 9HZ



N 50 33.024 | W 3 30.029



MISSION 75

PORTISHEAD

Portishead, named after the town of the same name, close to their Bristol roots, released their 1994 album *Dummy* containing the haunting song *Wandering Star*.

THE STAR AND DOVE
75-78 St Luke's Road
Bristol BS3 4RY



N 51 26.487 | W 2 34.945



ASTROCINEMA

INTELLIGENCE...

The history of science fiction films parallels that of the motion picture industry as a whole, although it took several decades before the genre was taken seriously.

Since the 1960s, major science fiction films have succeeded in pulling in large audience shares, and films of this genre have become a regular staple of the film industry. Science fiction films have led the way in special effects technology, and have also been used as a vehicle for social commentary.

Le Voyage dans La Lune (A Trip to the Moon) from 1902 is thought to be the first science fiction film.

MISSION 76

THE RIGHT STUFF

The Right Stuff is a movie about the test pilots who were selected to be the astronauts for the first attempt at manned spaceflight by the United States.

The movie was adapted from Tom Wolfe's best-selling book of the same name.

WOLFE CLOSE Chesterfield Derbyshire S40 2DF



5
POINTS



N 53 13.800 | W 1 27.147

MISSION 77

2001: A SPACE ODYSSEY

2001: A Space Odyssey is a Stanley Kubrick film of an Arthur C. Clarke novel.

The film is notable for its scientific realism and pioneering special effects.

THE ODYSSEY 166 London Road St. Albans, Hertfordshire AL1 1PG

N 51 44.881 | W 0 19.935



5
POINTS



MISSION 78

GRAVITY

Gravity stars Sandra Bullock and George Clooney as astronauts, and sees them stranded in space after the mid-orbit destruction of their space shuttle and their subsequent attempt to return to Earth.

ANTI-GRAVITY
8 Colliergate, York YO1 8BP

N 53 57.567 | W 1 04.766



5
POINTS



ASTROCINEMA CONTINUED

MISSION 79

MISSION TO MARS

When the first manned mission to Mars meets with a catastrophic and mysterious disaster after reporting a unidentified structure, a rescue mission is launched to investigate the tragedy and bring back any survivors.

MISSION BURRITO
4 New Street, Bath BA1 2AF

N 51 22.871 | W 2 21.814



MISSION 80

WAR OF THE WORLDS

The War of the Worlds, by H. G. Wells, has spawned many radio dramas, TV Shows and movies. The first appearance in book form was published in 1898.

MARTIAN TRIPOD STATUE
Church Street East, Woking
Surrey GU21 6HJ

N 51 19.242 | W 0 33.421



MISSION 81

CONTACT

Jodie Foster plays Dr. Eleanor Arroway, a SETI scientist who, after years of searching, finds conclusive radio proof of intelligent aliens, who then send plans for a mysterious machine.

CONTACT offer theatre, dance, comedy and art events aimed at a younger audience.

Oxford Road, Manchester M15 6JA

N 53 27.799 | W 2 13.850



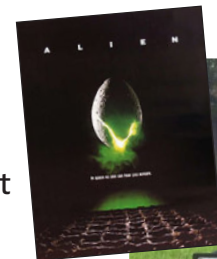
MISSION 82

ALIEN

Ridley Scott's 1979 *Alien* brought a dark depiction of Extra Terrestrial contact with H. R. Giger's surreal dark creations.

Ridley Scott was raised on **GREENS BECK ROAD** Hartburn, Stockton-on-Tees Teesside TS18 5AR (the Teesside industrial landscape would later inspire scenes in *Blade Runner*)

N 54 33.424 | W 1 20.722



STAR WARS

INTELLIGENCE...

Star Wars, the first of seven films, was released in 1977, and became a worldwide pop culture phenomenon.

The films were presented as a trilogy in 1977, 1980 and 1983, then a prequel trilogy in 1999, 2002 and 2005. The latest film was released in December 2015.

The events depicted in the *Star Wars* world take place in a fictional galaxy. Many species of alien creatures and robotic droids are commonplace. Space travel is common, and many planets in the galaxy are members of a Galactic Republic, later reorganised as the Galactic Empire.

MISSION 83

PINEWOOD STUDIOS

Pinewood Studios is a film and television studio in Iver Heath, Buckinghamshire.

The studios have played host to many productions over the years from huge blockbuster films to television shows including, of course, all the *Star Wars* films.

Pinewood Road, Iver Heath
Buckinghamshire SLO ONH

N 51 32.932 | W 0 31.909

5
POINTS



MISSION 84

ALEC GUINNESS

Guinness's role as Obi-Wan Kenobi in the original *Star Wars* trilogy got him Golden Globe and Academy Award nominations. However, he grew tired of audiences knowing him only for this role that he would throw away mail he received from *Star Wars* fans without reading it.

GUINNESS HOMES 1 Stable Street
Hollinwood, Oldham OL9 7LH

N 53 31.183 | W 2 08.748

2
POINTS



MISSION 85

EWAN MCGREGOR

Ewan McGregor played the young Jedi Obi-Wan Kenobi in the *Star Wars* prequel trilogy but is possibly best known for his role as heroin addict Mark Renton in the *Trainspotting* and on TV for the *Long Way Round* and *Down* motorcycle adventures.

LONGWAY Barrow-in-Furness
Cumbria LA13 0DP

N 54 06.758 | W 3 11.825

5
POINTS



STAR WARS CONTINUED

MISSION 86

DAVE PROWSE

David Prowse played Darth Vader in the original *Star Wars* trilogy, though the character's voice was provided by James Earl Jones.

He is also well known as the Green Cross Code man, a character used in road safety advertising.

GREEN CROSS CHEMIST
23 Sandygate Road, Crosspool
Sheffield S10 5NG.



5 POINTS



N 53 22.765 | W 1 31.202

MISSION 87

NATALIE PORTMAN

Natalie Portman (born Neta-Lee Hershlag) is an Israeli-born American actress. Her first role was in *Léon: The Professional*, opposite Jean Reno, but success came when she played Padmé Amidala in the *Star Wars* prequel trilogy.

PORTMAN AND PICKLES
Market Street, Halifax
West Yorkshire HX1 1PB



5 POINTS



N 53 43.370 | W 1 51.535

MISSION 88

KENNY BAKER

Kenneth George "Kenny" Baker is an actor and musician famous for being the dwarf who was inside of R2-D2 in all of the *Star Wars* movies.

He also played an additional role in *Return of the Jedi* as an Ewok.

The **MOODY BAKER** is an artisan bakery based in the heart of Teesdale. 22 Horse Market
Barnard Castle DL12 8LZ



5 POINTS



N 54 32.644 | W 1 55.456

MISSION 89

ANTHONY DANIELS

Anthony Daniels is best known as both the body and voice of the golden robot C-3PO in all the *Star Wars* movies.

He also played the priest in the 1990 British spoof horror film *I Bought a Vampire Motorcycle*.

GOLD CUP INN
Nether Silton, Thirsk
North Yorkshire YO7 2JZ



5 POINTS



N 54 19.475 | W 1 18.038

TV IN ORBIT

INTELLIGENCE...

Science fiction first appeared on a television program during the *Golden Age of Science Fiction*.

The limited resources of many TV shows has meant they have lagged behind their movie counterparts in the quality of special effects required to present a living visual image of an imaginary world, but this has brought a wealth of ingenuity in production techniques. Technological advances now means that TV and movie special effects are closer than ever.

Astronomy on TV is typically represented in documentary style, with the BBC producing regular science fact programmes.

MISSION 90

SKY AT NIGHT

The Sky at Night is a monthly television programme on astronomy produced by the BBC, first aired in 1957.

The programme's opening and closing theme music is called "At the Castle Gate".

THE CASTLEGATE
69 Castlegate, Grantham
Lincolnshire NG31 6SJ

N 52 54.736 | W 0 38.422



MISSION 91

SPACE: 1999

Space: 1999 is a series from 1975. In September 1999, nuclear waste stored on the Moon's far side explodes, knocking the Moon out of orbit and sending it, and the 311 inhabitants of Moonbase Alpha, hurtling uncontrollably into space.

EAGLE (Interceptor) TAVERN
94 Ripley Road, Heage Belper
Derbyshire DE56 2HU

N 53 03.041 | W 1 26.805



TV IN ORBIT CONTINUED

MISSION 92

HITCHHIKER'S GUIDE TO THE GALAXY

Douglas Adams' book *The Hitchhiker's Guide to the Galaxy* was adapted for TV by the BBC in 1981. The series follows Arthur Dent's adventures after he survives the destruction of the Earth.

The first episodes pub scenes were filmed at **THE RED LION** Lewes Road, Haywards Heath Sussex RH17 7DE



N 51 03.260 | E 0 00.979

MISSION 93

DOCTOR WHO

Doctor Who is a BBC show, running since 1963, of the adventures of the Doctor, a Time Lord exploring space and time in his TARDIS, a space ship disguised as a blue police box.

12 actors have played the Doctor, the latest being Peter Capaldi.

A Grade-2-listed Tardis-like **POLICE BOX** is on Northgate Almondbury, Huddersfield HD5 8RX



N 53 38.046 | W 1 44.919

MISSION 94

LOST IN SPACE

An American TV series from 1965, *Lost in Space* follows the Robinson family, Major Donald West, secret agent stowaway Dr. Zachary Smith and a B-9 robot. Their spaceship, Jupiter 2, accidentally gets them hopelessly lost in uncharted space.

THE SHIP INN, Coniston, is a Robinsons Brewery owned pub. Bowmanstead, Coniston Cumbria LA21 8HB



N 21 21.752 | W 3 04.702

MISSION 95

THE OUTER LIMITS

The Outer Limits is a US TV series from 1963. It is often compared to *The Twilight Zone*, but had a greater emphasis on science fiction stories. *The Outer Limits* is an anthology of self-contained episodes, sometimes with a plot twist at the end.

OUTER LIMITS TATTOO PARLOUR 71 Barnton Street Stirling, Stirlingshire FK8 1HH



N 56 07.270 | W 3 56.315



TV IN ORBIT CONTINUED

MISSION 96

BLAKE'S 7

The BBC series of 1978, *Blake's 7*, is set in a future age of interstellar travel and follows the exploits of a group of renegades and convicted criminals. It was created by Terry Nation, who also created the Daleks for *Doctor Who*. It was very popular, watched by approximately 10 million people in the UK.

BLAKES 53 Grey Street
Newcastle upon Tyne NE1 6EE

N 00 00.000 | W 0 00.000



MISSION 97

RED DWARF

Red Dwarf is set on a mining spaceship operated by the Jupiter Mining Corporation. It follows the exploits of Dave Lister, the sole survivor of a radiation leak, hologram Arnold Judas Rimmer, service mechanoid Kryten, Cat (a descendant of Lister's pet) and Holly the ships computer.

SMEG 3A Park Square, Milton Park
Abingdon, Oxfordshire OX14 4RN

N 51 37.334 | W 1 18.079



MISSION 98

STAR TREK

Star Trek is a series by Gene Roddenberry that follows the adventures of the starship USS Enterprise and its crew. The ship and crew are led by Captain James T Kirk, First and Science Officer Spock and Chief Medical Officer Leonard 'Bones' McCoy.

THE KIRKSTONE PASS INN
Ambleside, Cumbria LA22 9LQ

N 54 27.866 | W 2 55.524



MISSION 99

STAR TREK VOYAGER

Star Trek Voyager is one of many spin-off series set in the *Star Trek* Universe. It follows the adventures of the Starfleet vessel USS Voyager, commanded by Captain Kathryn Janeway, which becomes stranded in the unknown Delta Quadrant.

THE VOYAGER Hutton Meadows
Guisborough, Cleveland TS14 8DN

N 54 31.806 | W 1 04.854



EVENTS

MISSION 100



THE XXVII INTERNATIONAL CONFERENCE ON NEUTRINO PHYSICS AND ASTROPHYSICS

The International Conference on Neutrino Physics and Astrophysics primary purpose is to review the status of the fields of neutrino physics and the impact of neutrino physics on astronomy and cosmology and the vision for the development of these fields.

3rd – 9th July 2016

Royal Geographical Society
1 Kensington Gore, London SW7 2AR



N 51 30.069 | W 0 10.477

MISSION 101



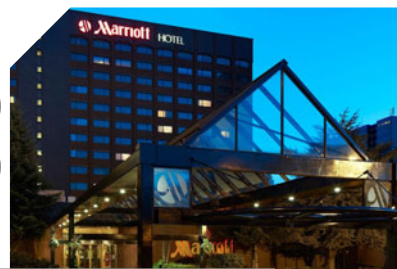
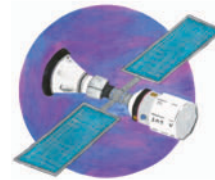
SATELLITE 5

Satellite conventions have traditionally focused on the interface between science fact and science fiction.

Satellite 1 looked at the Soviet Space Programme and science fiction since the launch of Sputnik 1. *Satellite 2* celebrated the 40th anniversary of the Apollo moon landing. *Satellite 3* visited Mars. After going One Step Beyond the solar system with *Satellite 4*, *Satellite 5* is heading back into orbit to look at science and science fiction relating to space stations, orbiting habitats, floating cities etc.

28th – 29th May 2016

Marriott Hotel
500 Argyle Street
Glasgow G3 8RR



N 55 51.583 | W 4 16.131

MISSION 102



PLANET THANET BEER FESTIVAL

25th – 26th March 2016

Winter Gardens, Fort Crescent
Margate, Kent CT9 1HX



N 51 23.496 | E 1 23.191



EVENTS CONTINUED

MISSION 103



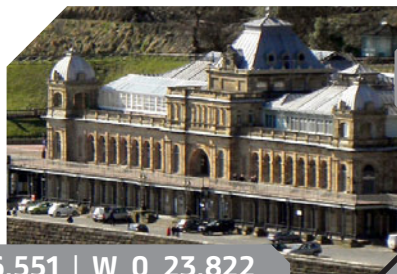
SCI-FI SCARBOROUGH

Sci Fi Scarborough (SFS) is a whole weekend Unconventional Convention held in the quirky quarter mile of The Spa Complex, Scarborough.

Two full days (inc Sat night Party) filled with Comic Book Artists, Writers, Music, Prop Displays, Traders, Authors, Cosplay, Guest Appearances, Guest Panels, Science, Steampunk, Fan Films, Geek Pub Quizzes, Retro Gaming, Tabletop Gaming, Minecraft, Miniatures, Modern Console Gaming, Competitions, Awards, Education, Live Music and much more.

9th – 10th April 2016

Scarborough Spa, South Bay
Scarborough, North Yorkshire YO11 2HD



N 54 16.551 | W 0 23.822

MISSION 104

STAR FORMATION 2016



The University of Exeter will be hosting an international conference devoted to star formation.

Our theoretical understanding of the star formation process has undergone a revolution. From GMCs to planet-forming discs, there is a growing realisation that the role of radiation and chemical feedback in controlling fragmentation and accretion processes is key.

The scope of the conference will cover GMC formation, cloud structure and filaments, core formation, accretion and outflow processes, emergent stellar populations and the IMF, discs across the mass spectrum, finishing with structured discs as signatures of planet formation.

21st – 26th August 2016

University of Exeter, Stocker Road
Exeter, Devon EX4 4QL



N 50 44.157 | W 3 32.067

MISSION 105



Star Wars Celebration is the ultimate fan event focused on a galaxy far, far away...

Star Wars Celebration will bring fans of all ages together, from all around the world, to celebrate the pop culture phenomenon that is Star Wars – all on the cusp of new Star Wars movies and television shows! Looking ahead, while celebrating all that has come before, there's something for everyone at Star Wars Celebration!

15th – 17th July 2016

ExCeL London
Royal Victoria Dock
1 Western Gateway
London E16 1XL



N 51 30.478 | E 0 02.130



