

## The International Year of Astronomy 2009

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Editor writes:-As we come to the end of the year it's time to reflect on the major discoveries of 2008 and look forward to the new year. But before 2009 we have got our Annual Christmas Meal to look forward and I look forward to seeing you all there. If you can't make it then I wish you a Merry Christmas and an extraterrestrial New Year.

With just a few weeks to go before 2009, the International Year of Astronomy project is getting ready for its grand Opening Ceremony. This promises to be a spectacular event, held at the United Nations Educational, Scientific and Cultural Organisation (UNESCO) Headquarters in Paris, 15 and 16 January 2009. Hundreds of attendees are expected, including heads of state, Nobel Prize winners and other eminent scientists. The press is invited to attend and to "save the date" in the calendar.

### **Global Celebration**

The International Year of Astronomy 2009 (IYA2009) has been launched by the International Astronomical Union (IAU) under the theme "The Universe, yours to discover". IYA2009 marks the 400th anniversary of Galileo Galilei's first astronomical observation through a telescope, an event which shook the whole of Europe. IYA2009 will be a global celebration of astronomy and its contribution to society and culture, with strong emphasis on education, public engagement, and the involvement of young people, with events at national, regional, and global

"The Universe, yours to discover"



levels. Many thousands of individuals in over 130 countries across the globe are already involved, forming the world's largest ever network. IYA2009 astronomy will portray astronomy as a peaceful global scientific endeavour that unites astronomers in an international, multicultural family of scientists, working together to find answers to some of the most fundamental questions that humankind has ever asked. А strong presence media is anticipated the at Opening Ceremony, drawn by the high profile events and speakers, including UN Secretary-General Ban Ki-moon, UNESCO Director-General Koichiro Matsuura, and IAU President Catherine Cesarsky. Also present will be Nobel Prize winners including Robert Woodrow Wilson, discoverer of the Big Bang

"fossil radiation", and Baruch Blumberg, "distinguished scientist" from the NASA Lunar Science Institute and the NASA Astrobiology Institute, recipient of the 1976 Nobel Prize in Medicine. In addition, there will be exhibition spaces for well-known science institutions who support IYA2009.



A press conference will be held on the 15 January 2009, 12:30, at the UNESCO Headquarters. This press conference will address some of the most vibrant subjects of modern astronomy research and the International Year of Astronomy 2009 highlights.

The Opening Ceremony is set to launch IYA2009 on its journey, helping citizens of the world rediscover their place within the Universe.



# In Depth

## Fourth dwarf planet named Makemake

On the 17 July 2008, in Paris The International Astronomical Union (IAU) has given the name Makemake to the newest member of the familiy of dwarf planets — the object formerly known as 2005 FY9 —after the Polynesian creator of humanity and the god of fertility.

"We consider the naming of objects in the Solar System very carefully. Makemake's surface is covered with large amounts of almost pure methane ice. which is scientifically fascinating, but really not easily relatable to terrestrial mythology. Suddenly, it dawned on me: the island of Rapa Nui. Why hadn't I thought of this before?"



Members of the International Astronomical Union's Committee on Small Body Nomenclature and the IAU Working Group for Planetary System Nomenclature (WGPSN) have decided to name the newest member of the plutoid family Makemake, and have classified it as the fourth dwarf planet in our Solar System and the third plutoid.

Makemake (pronounced MAH-keh MAHkeh) is one of the largest objects known in the outer Solar System and is just slightly smaller and dimmer than Pluto, its fellow plutoid. The dwarf planet is reddish in colour and astronomers believe the surface is covered by a layer of frozen methane.

Like other plutoids, Makemake is located in a region beyond Neptune that is populated with small Solar System bodies. The object was discovered in 2005 by a team from the California Institute of Technology led by Mike Brown and was previously known as 2005 FY9 (or unofficially "Easterbunny"). It has the IAU Minor Planet Center designation (136472). Once the orbit of a small Solar System body or candidate dwarf planet is well determined, its provisional designation (2005 FY9 in the case of Makemake) is superseded by its permanent numerical designation (136472) in the case of Makemake. The discoverer of a Solar System object has the privilege of suggesting a name to the IAU, which judges its suitability. Mike Brown says: "We consider the naming of objects in the Solar System very carefully. Makemake's surface is covered with large amounts of almost pure methane ice, which is scientifically fascinating, but really not easily relatable to terrestrial mythology. Suddenly, it dawned on me: the island of Rapa Nui. Why hadn't I thought of this before? I wasn't familiar with the mythology of the island so I had to look it up, and I found Makemake, the chief god, the creator of humanity, and the god of fertility. I am partial to fertility gods. Eris, Makemake, and 2003 EL61 were all discovered as my wife was 3-6 months pregnant with our daughter. I have the distinct memory of feeling this fertile abundance pouring out of the entire Universe. Makemake was part of that." WGPSN and CSBN accepted the name Makemake during discussions conducted per email.

The other three dwarf planets are Ceres, Pluto and Eris. However, Ceres is not a member of the distinctive plutoid group because its orbit is smaller than Neptune's (Ceres is located in the asteroid belt between Mars and Jupiter).

The word Makemake is Polynesian in origin and is the name of the creator of humanity and the god of fertility in the mythology of the South Pacific island of Rapa Nui or the Easter Island. He was the chief god of the Tangata manu bird-man cult and was worshiped in the form of sea birds, which were his incarnation. His material symbol was a man with a bird's head.

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Links http://www.iau.org/public\_press/themes/pluto/

## Discoveries

## Hubble

#### Top Most Amazing Pictures Taken by Hubble Space Telescope

After correcting an initial problem with the lens, when the Hubble Space Telescope was first launched in 1990, the floating astro-observatory began to relay back to Earth, incredible snapshots of the "final frontier" it was perusing. Recently, astronauts voted on the top photographs taken by Hubble, in its 16-year journey so far. Remarking in the article from the Daily Mail, reporter Michael Hanlon says the photos "illustrate that our universe is not only deeply strange, but also almost impossibly beautiful."





The Sombrero Galaxy - 28 million light years from Earth - was voted best picture taken by the Hubble telescope. The dimensions of the galaxy, officially called M104, are as spectacular as its appearance. It has 800 billion suns and is 50,000 light years across.

The Ant Nebula, a cloud of dust and gas whose technical name is Mz3, resembles an ant when observed using ground-based telescopes... The nebula lies within our galaxy between 3,000 and 6,000 light years from Earth.

In third place is Nebula NGC 2392, called "Eskimo" because it looks like a face surrounded by a furry hood. The hood is, in fact, a ring of comet-shaped objects flying away from a dying star. Eskimo is 5,000 light years from Earth.

At four is the Cat's Eye Nebula.



#### And if you thought Space Food was peanuts and roast dinner in a tube!

The top ten that is essential afterdinner trivia. This time in Discoveries we bring you what your average space man is eating right now above your head.

#### 10. Shrimp Coctail

Due to lack of gravity astronauts' heads become congested, dulling the taste of many foods. Shrimp cocktail and other spicy dishes are full of flavour and thus more desirable.

#### 9. Tomato and Basil Seeds

Of plant seeds, the most popular being those for tomatoes and basil. Once back on Earth, kids are challenged to grow the space-exposed seeds and compare their fruit to grounded control samples.

#### 8. Antimatter

Antimatter's special blend of vitamins and minerals were carried aloft by UP Aerospace's SpaceLoft XL suborbital rocket in 2006 and 2007.

#### 7. Space Ram Soup

The Cup Noodle has been redeveloped and repackaged for spaceflight. Stringy noodles were reshaped into pasta balls for easier consumption, the soup was reformulated to cook in 70 degree water.

#### 6. Canasnacks

Bite-sized sandwich cookies with maple, cranberry or blueberry cream filling, these nutritional Oreo-like snacks were the first Canadian astronaut food to fly (hence the maple leaf design).

#### 5. Spicy Grean Beans

Well seasoned legumes are chef Emeril Lagasse's special recipe. One of several celebrity chefs invited by NASA to develop new delicacies for the space station's pantry.

#### 4. Coca-Cola and Pepsi

In 1985, the Cola Wars reached new heights as NASA invited both the Coca-Cola Company and Pepsi, Co. to fly experimental dispensers for the ultimate in taste tests. Coke Won!

#### 3. Orange Drink

The powdered orange juice drink made famous during the 1960s Gemini program.

#### 2. Freeze-Dried Ice Cream

It's not cold, it's dry as chalk, but it does melt in your mouth with the odd aftertaste of honest to goodness ice cream.

#### I. Candy-Coated Chocolates

These lead to Astronouts doing impersonations of Pac-Man. While other sweets do fly, the hard candy shell with chocolate center that 'melts in your mouth, not in your hand' seems perfectly suited for spaceflight. NASA labels the M&Ms as 'candy-coated chocolates' as to not inadvertently advertise any specific brand.

#### Source

http://www.space.com/missionlaunches/top10-space-foods.html



#### Source

http://www.dailymail.co.uk/legacygallery/gallery-9139/Hubble--The-amazing-space-photographs-universe.html

## Events

## EAAA Xmas Meal

Get into the the festive mood and treat yourself and your partner with our Christmas Meal. This year we have chosen the Evenhill Pub and Restuarant which even has rooms for the night if you can't make it home!!! See you there.

Fill in the form below and send it to us by 15th December 2008.

- Adult £59.95 - Children (12 years and under) £29.95

#### Address & Directions

The Evenhill 62 The Hill Littlebourne Somerset CT3 1TA Tel: 01227 772 8073 Fax: 01227 721 1084 www.evenhillsomerset.co.uk



#### **Booking Form**

Booking table in the name of
Address
Postcode
Arrival Time
Mobile Number
No. of Guests Date
Cheque enclosed for Deposit $f_10 \ge 0$ no. of Guests $\Box$ (tick) $f_1 = 10$

### Christmas Menu

#### Starters

Festive Roast Parsnip Soup served with garlic and fresh herb croutons and freshly baked bread

Ham and Herb Hock Roulade with crisp green salad drizzled in a honey and mustard dressing

#### Potted Crab and Baby Prawns

served with a rocket and parmesan salad coated in a balsamic dressing accompanied with freshly baked bread



#### Roasted Crown of Turkey

served with cranberry sauce, roast potatoes, sage and onion stuffing, bacon wrapped sausages, honey glazed parsnips, carrots, braised red cabbage and leeks accompanied in a rich turkey gravy

#### Mushroom and Onion Beef Wellington

on a bed of pom puree accompanied by green beans and baby carrots with a rich madeira sauce

#### Fillet of Salmon

cooked in orange and coriander served with new potatoes, green beans wrapped in bacon, baby corn and baby carrots served with an orange and peppercorn butter

## Champagne Sorbet

Desserts Traditional Christmas Pudding

served with cream, brandy cream, ice cream or custard

Flambe Calvados Tarte Tatin with ice cream, cream or custard

Festive Christmas Chocolate Log served with brandy cream, cream, ice cream or custard

> Vanilla Panacotta with cherry compote

Local Cheese and Biscuits

served with red onion marmalade

Freshly Made Tea or Coffee and mince pies

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