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The OPCW's director general speaking after his organisation had been awarded the 2013 Nobel Peace Prize

CHEMICAL WEAPONS WATCHDOG WINS PEACE PRIZE

This year's winner of the Nobel Peace Prize was announced on 11th October. The prize was awarded to the Organisation for the Prohibition of Chemical Weapons (OPCW). Currently several teams of OPCW officials, or inspectors, are working in Syria. Their job is to record and destroy all of Syria's chemical weapons.

Each year the Nobel Peace Prize is given to the person or organisation that is thought to have made the greatest **contribution** to world peace. Other important Nobel prizes are awarded around the same time. These are given to people who are judged to have made the greatest contributions to medicine, literature, chemistry and physics.

The first Nobel Prizes were awarded in 1901. They were the idea of a Swedish chemist called Alfred Nobel (1833 – 1896). As well as the Nobel Prizes he is

best known for inventing dynamite. Nobel became a very wealthy businessman. Before he died he arranged for some of his fortune to pay for the prizes that were named after him.

At the time of Nobel's death the same king ruled Norway and Sweden. This explains why both countries have a part in awarding the prizes. A **committee**, or group, of academics from Sweden, chooses the winners of the prizes for medicine, literature, chemistry and physics. A group of five people, selected by Norway's parliament, awards the Peace Prize.

It is not unusual for the Peace Prize to be given to an organisation and not a person. The OPCW is an example. Past winners have included the Red Cross and the United Nations (UN) peace-keeping forces. Last year's Peace Prize went to the European Union (EU). At the time most people admitted to being

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surprised by this choice. The group that makes the award explained that the EU had helped to keep the peace in Europe since 1945, or after the end of the Second World War.

The OPCW was set up in 1997. Its headquarters are in The Hague, a city in the Netherlands. A director general leads the organisation, which has about 500 members of staff. The current director general is Ahmet Üzümcü, who is from Turkey.

Certain types of chemicals were first used as weapons during the First World War (1914 – 1918). Yet in the 1920s an international treaty was signed that banned all chemical weapon attacks. Today, both making and using chemical weapons is unlawful.



OPCW's headquarters in The Hague

Modern chemical weapons include highly poisonous, or toxic, nerve gases. These are very dangerous and can quickly kill many thousands of people. The weapons can be put inside artillery shells or rockets. They can also be dropped from planes and fitted to both short- and long-range missiles. Chemical weapons are often described as Weapons of Mass Destruction (WMD).

In 1993 most countries in the world agreed to a new chemical weapons treaty. It is called the Chemical Weapons Convention (CWC). This treaty says that making, storing and using chemical weapons is illegal. Furthermore, any country that already had stores of chemical weapons had to

destroy them. Although the CWC was signed in 1993 it did not start, or come into force, until 1997. This was when the OPCW was set up.

The OPCW is what's known as an intergovernmental organisation (IGO). This means the money needed to run it comes from the countries that signed the CWC. These are called CWC members. Therefore, even though the OPCW works closely with the United Nations (UN) it is not part of it.

One of the OPCW's jobs is to make sure that all CWC members that have stores of chemical weapons have destroyed them. Members also have to close any factories used to make these weapons. Historically, the two biggest holders of chemical weapons have been the USA and Russia. A recent OPCW report says that, since 1997, the USA has destroyed 90% of its chemical weapons. In Russia the figure is 70%. Both countries should have got rid of all of them by the end of this year. Russian officials have said that this will now be done by 2015.

Because the OPCW carries out inspections in other countries it is often called 'the chemical weapons watchdog'. The word watchdog is used to describe a person or organisation that reports and stops others from doing something unlawful.

Recently the OPCW has been in the news. This is because of its work in Syria. Fighting in Syria broke out about two and a half years ago. On one side is the Syrian army. It supports the country's president, Bashar al-Assad, and his government. On the other side are several groups that dislike Mr al-Assad. These opposition groups are often called the 'rebels'.

Traditionally, Russia has always supported Syria and its government.

Over the last two years many countries have declared that they want the rebels to win. These nations include the USA, the UK, France and several Arab countries, such as Qatar and Saudi Arabia.

Until last month Syria was one of the few countries that had not signed the CWC. Even though it had never admitted it, Syria was known to have stores of chemical weapons.

The rebels have been claiming that the Syrian army has used chemical weapons several times. The largest chemical weapon attack happened two months ago, in a place called Ghouta. This is a part of the city of Damascus. Some say it killed 1,400 people, including many women and children. The UN arranged for OPCW inspectors to go to Syria to carry out some tests. Later the OPCW confirmed that a type of poisonous gas had been used in Ghouta.

Soon afterwards the leaders of the USA and France threatened to launch airstrikes at Syrian army bases. This, they said, would be a punishment for using chemical weapons. Eventually, an agreement, or deal, was organised by Russia and the USA. Syria said it would sign the CWC. It also let OPCW monitors into Syria so they could destroy its chemical weapon supplies. Most people believe President al-Assad agreed to this to stop the USA and France attacking his country.

Many people think the OPCW's job in Syria will be very difficult. This is because it will have to work while there is fighting in many parts of the country.

After hearing the news that his organisation had won the Peace Prize Mr Üzümcü made a short speech. He said the award 'would encourage his staff to help rid the world of all chemical weapons'. ■

SPECIAL FORCES RAIDS

On 5th October two groups of specially trained American troops carried out secret operations. One took place in Libya and the other in Somalia. Later, American officials said one man had been captured in Tripoli, the capital of Libya. Yet they admitted that the operation in Somalia had been unsuccessful.



Memorial in Nairobi, Kenya's capital city, to those killed in the embassy bomb attack in 1998

The Libyan man seized in Tripoli is Anas al-Liby. He is believed to have planned the bombing of the American embassy in Nairobi, Kenya's capital city, in 1998. On the same day another bomb exploded at the American embassy in Dar es Salaam. This is the largest city in Tanzania. American officials claim that this attack was also organised by Mr al-Liby.

The bomb in Nairobi killed 212 people. Hundreds of others were injured. Eleven people died in Tanzania. Both attacks were aimed at Americans. Yet nearly all of those killed were local people who worked in the two embassies.

Officials in the USA claim that Mr al-Liby is a member of al-Qaeda. This is the militant Islamic group that carried out the attacks on New York City and Washington DC in 2001. Since then these attacks have become known as '9/11'. This is because they occurred on 11th September.

It's thought that American agents have been searching for Mr al-Liby for 15 years. In the past a reward of US\$5 million (£3.1 million) was offered to anyone who helped to catch him.

Mr al-Liby was outside his house when he was captured. He had just returned from morning prayers at a nearby mosque and was parking his car. Suddenly several other cars arrived. Men with their faces covered, pointed guns at Mr al-Liby and forced him into one of their cars. It then sped off.

Many think that Mr al-Liby was secretly flown by helicopter to an American warship in the Mediterranean Sea. The men who captured Mr al-Liby belonged to a group called Delta Force. Soldiers trained for these types of secret operations are known as Special Forces.

The following day Libyan government officials asked the USA for an explanation. Many people believe these types of secret operations in other countries are illegal. On 14th May it was announced that Mr al-Liby had arrived in the USA. It's likely that he will now be put on trial for the 1998 bombings.

A group called Seal Team Six carried out the raid in Somalia. Members of this team are also Special Forces. They come from the American navy. Seal Team Six is the same group that attacked Osama bin Laden's house in Pakistan in 2011. Then, bin Laden was al-Qaeda's leader. In the surprise attack he was shot and killed.

It's thought that Seal Team Six was trying to capture one of al-Shabaab's leaders. This Islamic militant group is based in Somalia. Some people believe that al-Shabaab and al-Qaeda work together. Supporters of both groups

believe people should follow very strict Islamic laws. Al-Shabaab has admitted that it organised the recent terrorist attack on the shopping centre in Kenya.

During the night, after landing from boats, the American team attacked a house near the beach. However, many armed men were near the building. Fierce fighting broke out. The American forces then decided to withdraw.

Military officials in the USA declared that the two Special Forces' raids were unconnected. It was, they said, a **coincidence** that they happened on the same day. ■

MEDITERRANEAN MIGRANT BOATS

On 15th October the governor of the island of Sicily announced that he had declared a state of emergency. This island is part of Italy. The governor said that the increasing number of migrants is now a very serious problem. The migrants are people who are trying to cross the Mediterranean Sea to get from North Africa to Europe.



On the same day that the governor made his announcement Italian navy and coastguard ships had rescued about 370 migrants in three old boats. In the previous ten days several boats full of people had **capsized** near the islands of Lampedusa and Malta. One boat was carrying

around 500 people. Over three hundred of them drowned. Another 30 died when a different boat sank.

In recent years there have been many political problems in North African countries. Because of these problems thousands of migrants are trying to get to European Union (EU) member countries. They do this in the hope of improving their lives and finding a good job.

Lampedusa is one of a group of small islands, called the Pelagie Islands. Even though they are only about 113 kilometres (70 miles) from Tunisia, the islands belong to Italy. Lampedusa has a population of about 6,000. Most make a living from fishing. As the islands are part of Italy it is the Italian government's responsibility to look after people who land on them. Many of the migrants who reach Lampedusa are then taken to special camps in Sicily.

Malta is a separate country. Like Italy it is one of the 28 member countries of the EU. If the migrants manage to reach Lampedusa or Malta they may eventually be allowed to live in a EU member country.

To get to Lampedusa or Malta the migrants first travel to Libya or Tunisia. Nowadays many are coming from far away African countries. These include Ethiopia, Eritrea, Mali and Somalia. After arriving at the coast they have to find a boat. Criminal gangs in Tunisia and Libya charge the migrants thousands of dollars to take them to Lampedusa or Malta. Yet the small boats they use are old and in need of repair. When they set off the boats are overloaded. So there is always a danger of them sinking.

Of the 300 people who drowned most were from Eritrea and Somalia. The boat had sailed from Libya. The day after the accident Enrico Letta,

the prime minister of Italy, and José Manuel Barroso visited Lampedusa. Mr Barroso is the president of the European Commission. This is the organisation that runs the EU.

Around 25,000 migrants from Africa have landed in Italy since the beginning of the year. Mr Barroso said that more money would be provided to help to look after them. However, many people argue that the African migrants should not be allowed into the EU. These people say that there are already 26 million people in EU countries who do not have a job.

Joseph Muscat, the prime minister of Malta, wants other EU members to help Italy and his country. He said if nothing is done to solve the migrant problem the Mediterranean Sea would be like a [cemetery](#). ▣

ELECTION IN AZERBAIJAN

A presidential election was held in Azerbaijan on 9th October. The election was run by an organisation called the Central Election Commission. After all the votes had been counted the commission announced that Ilham Aliyev had won with almost 85% of the votes.



Ilham Aliyev, president of Azerbaijan (WEF)

About 9.3 million people live in Azerbaijan. It is one of the countries that surround the Caspian Sea. Today Azerbaijan is a large producer

of both oil and gas. Oil wells first started operating in the country in the 1840s.

In 2005 a new oil pipeline to the Mediterranean Sea was completed. From Azerbaijan the pipeline goes through Armenia and Turkey. This means that oil from Azerbaijan can be loaded onto ships and taken to other countries. Most of the nation's oil and gas is sold to European countries.



Flame Towers, in Baku

In the early 1800s Azerbaijan became part of the Russian Empire. For a few years after Russia's defeat in the First World War (1914 – 1918) it was a separate country. In 1920, communist, or Soviet, Russia invaded Azerbaijan. The Russian leaders at that time wanted to control the country's large oil supplies.

Azerbaijan remained part of the Russian-led Soviet Union for the next 70 years. It became an independent country again in 1991 after the Soviet Union began to break up. Today, Baku, the country's capital, is a modern city. One well-known modern building in the city is called Flame Towers. The building has three tall flame-shaped towers. At night, lights on the outside of these towers make it look as if they are a huge fire.

The president, who is elected for a term of five years, runs the country. Mr Aliyev also won the last election in 2008 as well as the one before in 2003. He took over from his father who had been the president for the

previous ten years. Therefore Mr Aliyev's family has controlled the country for the last 20 years. Some people now describe Azerbaijan as a 'family dictatorship'.

Because of a change in the rules Mr Aliyev can now take part in presidential elections as many times as he wants. This change was made after he won the last election in 2008. Before this a person could only be the president for a maximum of ten years.

There were ten candidates in the election. Jamil Hasanli came second. He got just over 5% of the votes. After the election result was announced Mr Hasanli complained. He said the election was not 'free or fair'. The government controls all the television stations. This meant there was little coverage of opposition parties and what changes they would like to make.

A number of monitors from European countries travelled to Azerbaijan to check on the election. Their report criticised the Election Commission. It said that there had been cheating and many votes had been miscounted. ■

GENERAL GIAP FUNERAL

A national funeral was held in Hanoi, the capital of Vietnam, on 12th and 13th October. The funeral was for General Vo Nguyen Giap, who had died, aged 102, on 4th October.

General Giap was a successful military commander. With soldiers who were often badly equipped, he managed to defeat more powerful armies. These included military forces from Japan, France and the USA.

Giap was born in 1911. Then Vietnam was a colony of France. When he was a young man he taught history at a school. He greatly admired

Napoleon Bonaparte (1769 – 1821). Giap was able to describe how Napoleon defeated his opponents in most of the battles he fought.

Napoleon was a military and political leader. Apart from a few months, he ruled France from 1804 to 1815. Napoleon led his armies to many victories in Europe. An army commanded by the British, and made up of soldiers from several European nations, finally defeated him. This battle took place near Waterloo, a small town in Belgium, in 1815.

Vietnam was a French colony for many years. Yet during most of the Second World War (1939 – 1945) the country was occupied by Japan. In the 1930s Giap met Ho Chi Minh. Later the two men formed a new communist party. This became known as the Viet Minh. They set up secret jungle bases. Under Giap, Viet Minh's forces began attacking Japanese soldiers. In 1945, after Japan surrendered to the USA, Ho and Giap declared Vietnam to be an independent communist country.

However, French leaders were unhappy. Now that the Second World War had finished they wanted Vietnam to continue to be a French colony. In 1946 French and Viet Minh forces began attacking each other. In 1954 General Giap's 'jungle' army managed to surround thousands of French troops at a place called Dien Bien Phu. Eventually, the French force surrendered.

After several more defeats the French decided to leave Vietnam. The country was then divided in two: The Democratic Republic of Vietnam (North Vietnam) and the Republic of Vietnam (South Vietnam).

North Vietnam, under Ho Chi Minh, then planned to take control of the South. Fighting broke out between them. By the 1960s the USA

was worried that if North Vietnam succeeded other countries in this part of Asia would also be taken over by communist supporters.

This was the start of what is known as the Vietnam War. Most of the fighting was in South Vietnam. On one side was the South Vietnamese army helped by the USA. On the other were guerrilla – or unofficial – forces known as the Viet Cong. This group was made up of soldiers from North Vietnam and men and women from the South who supported the North.



General Giap

Several other communist countries such as Russia and China supplied many of the Viet Cong's weapons. Between 1964 and 1973 soldiers from the USA fought alongside the South Vietnamese army against the Viet Cong. The American air force bombed Hanoi and many other towns in North Vietnam.

In 1973, the USA left South Vietnam after a peace agreement was signed. Yet the war didn't finally end until North Vietnam invaded the South in 1975. The invasion led to the collapse of the South Vietnamese government. The North then finally took control of the whole country. Nearly 60,000 Americans were killed and over 150,000 wounded.

Some historians believe General Giap was one of the world's best military leaders. Yet, three million soldiers, under his command, died during the war.

Thousands of people took part in General Giap's funeral. Afterwards his body was taken to his home town. There he was buried close to his relatives and ancestors. ■

GOLDEN RICE ARGUMENT

In recent years plant scientists have managed to create a new type of rice. It has been nicknamed 'golden rice'. Many believe it could help thousands of people in the world who suffer from a lack, or deficiency, of vitamin A. Yet others disagree. This is because golden rice is what's known as a GM (genetically modified) plant.



White rice and golden rice (IRRI)

Nowadays scientists are able to modify, or change, the genes of plants. This means GM plants, or crops, can be made that produce more food, grow with less water, or will not be eaten by certain insects.

Not everyone agrees that GM crops are a good idea. People who distrust them claim that not enough research has been done to see if they damage other plants. They also believe that much more work is needed to find out if GM crops affect those who eat them. However, supporters insist that there is nothing dangerous about GM crops. They claim that many people are already eating them and they do not do any harm.

To stay healthy people need to have certain nutrients and vitamins

in the foods they eat. In some less wealthy areas of the world people still mainly eat rice. This is what happens in parts of Asia and Africa.

Around two billion people in the world eat rice as their main source of carbohydrate. This is needed for energy. Many of these people are able to afford other types of food such as fruit, vegetables and greens. These are important, as they contain the nutrients and vitamins that people need to keep healthy.

The people who mainly eat rice but little else are likely to have a vitamin A deficiency. It's estimated that around 124 million people in the world suffer from a lack of vitamin A. There are between one and two million deaths from this deficiency every 12 months. It is also believed to be the cause of about 500,000 people losing their sight each year. Vitamin A deficiency affects pregnant women and younger children more than others. Young children who become blind because of a lack of vitamin A often die within 12 months.

Scientists say that golden rice was created to help to solve this problem. They genetically modified normal white rice by adding a gene to the rice's DNA. This is the same gene that gives corn its yellow colour, or makes carrots and pumpkins orange. Adding this gene to rice makes it change colour. It also means that the rice contains some vitamin A. The scientists claim that golden rice would help those who suffer from vitamin A deficiency. They therefore want these people to plant golden rice instead of their normal rice.

Some environmental organisations such as Greenpeace disagree. Greenpeace is unhappy about all GM foods. It believes that golden rice will not help those with vitamin A

deficiency. For instance, it claims that after golden rice has been cooked it contains little vitamin A. However, these environmental organisations agree that people who do not get enough vitamin A need assistance. They say a better idea would be to help them to grow other types of crops that contain vitamin A. ■

ADA LOVELACE DAY

On 15th October people in many different countries celebrated the fifth Ada Lovelace Day. Many people do not know who Ada Lovelace was. Yet she is sometimes described as the 'world's first computer programmer'. Surprisingly she lived long before computers were invented.

Ada Lovelace was born in the UK in 1815. Her family name was Ada Gordon. Her father, George Gordon, became Lord Byron, the famous poet. Ada married the Earl of Lovelace when she was 19. In the UK 'Earl' is a high-ranking title that can be given by a king or queen. After her marriage she became known as Ada Lovelace. Sadly Ada died of cancer in 1852. At the time of her death she was only 36 years old.

Unusually for a woman at that time Ada was very good at maths. Her mother was also a keen mathematician. One of Ada's teachers introduced her to a man called Charles Babbage. He was trying to build several giant clockwork calculating machines. Ada and Babbage began to work together.

Babbage was a brilliant mathematician, engineer, inventor, and philosopher. Much of his work was done during the time known as the Victorian era. This period of British history is named after Queen Victoria. She reigned between 1837

and 1901. During the Victorian era many new inventions were put into use. These included trains, steamships, gas lighting, electricity supplies, and photography.

At that time humans did all the arithmetic. Those who were very good at it could make their living from adding up and working out mathematical problems. They were known as ‘computers’, or ‘people who compute’.



Ada Lovelace

In the 1820s Babbage designed a machine that he named a ‘Difference engine’. However, only parts of this machine were built. This was because Babbage decided to start work on a new device, which he called the **Analytical** engine.

The Analytical engine was different from his previous invention. This is because it could be ‘programmed’ to do many things. It also had a memory and printer. The codes, or programmes, were made from ‘punch cards’. So a person could ‘write’ a punch card programme and then the Analytical engine would do all the computing.

The codes for Babbage’s machines were written by Ada. Only a few parts of the Analytical engine were ever built. Much of the engine was to be made out of brass and iron. It was to be powered by steam. If it had been completed the engine would have been about the size of a steam train.

Most experts agree the Analytical engine was a ‘computer’. Amazingly, the first modern computers were not built until 100 years later in the 1940s. The experts say that, if it had been finished, Babbage’s machine, using Ada’s programmes, would have been more accurate than these first computers.

Susan Charman-Anderson started Ada Lovelace Day. She is a journalist and communication software expert from the UK. Ms Charman-Anderson said she wanted to have an Ada Lovelace Day for two reasons. One is to celebrate the achievements of many women in science. The other is to encourage more women to study maths, science and engineering. ■

EXPEDITION IN SURINAME

An international team of researchers has recently completed a three-week **expedition**. The researchers were studying wildlife in the remote jungles of Suriname, near the border with Brazil. They believe they may have found as many as 60 creatures that might be new species.

Suriname is the smallest independent nation in South America. It is a former colony of the Netherlands. It used to be called Dutch Guiana. Suriname’s population is about 560,000. Most people live close to the coast. Much of the country is covered in jungle.

When a species is ‘found’ or ‘discovered’, it means it is new to science. Local people may already know the species. Yet scientists, called taxonomists, have yet to spend time studying and describing it.

Taxonomists study new types of animals, insects and plants to try to work out which other species they are related to. They record their

characteristics and decide on new names. Once this has been done the species has been ‘discovered’. These scientists also study how new species behave. For example, they find out what they eat, how they reproduce and where they like to live.

So far around 1.2 million species have been officially discovered or registered. Some taxonomists estimate that there may be as many as ten million species in the world that are yet to be ‘found’, or classified. New ones are being discovered all the time. Many, such as different types of bacteria, are very small. These can only be seen with a microscope.



Cocoa frog (Conservation International)

A group of 30 local people, who live in the jungle, helped the researchers during their expedition. The team travelled by boat along several rivers, which flow through this remote area. The researchers recorded nearly 1,400 types of plants, insects, mammals, fish, and **amphibians**. Nets were used to find out what fish were living in the rivers.

Of the 60 species that may be new, six are different types of frog. Others are fish and insects. One of the possible new insects is a small dung beetle. It is only 2.3 millimetres (0.09 inches) long. This means it is one of the smallest beetles in South America.

One of the ‘new’ frogs was given the nickname ‘cocoa frog’. This is because its brown colour looks like chocolate. The cocoa frog lives in

trees. Another possible new frog is poisonous. It [secretes](#) a type of toxin. Local people use this poison for hunting. They put it on the tips of their arrows.

One of the researches said it would be exciting to find so many new types of frog. This is because many frog species, in other parts of the world, are becoming endangered. ■

NOBODY WINS IBRAHIM PRIZE

The winner of an annual award called the Ibrahim Prize for Achievement in African Leadership is usually announced in October. However, on 14th October, Dr Mo Ibrahim declared that, for the second year running, there was no winner.

Dr Ibrahim, who is a very wealthy businessman, set up the prize in 2007. He was born in Sudan and studied in Egypt. Dr Ibrahim made a large fortune in 2006 when he sold the mobile phone company he had set up.

Dr Ibrahim wanted to use some of his money to help the 52 countries that are part of Africa.

Many African nations have valuable resources. Precious metals and stones such as gold, diamonds and rubies are found in some. Other countries in Africa have large supplies of oil and gas. Yet many people living in these nations are still very poor. Dr Ibrahim believes this is because of bad leadership and a lack of good democratic government.

Dr Ibrahim thinks that some African leaders do not want to hand over power to anyone else. This is so they can use their control to make large amounts of money, often illegally. He therefore decided to

set up the Ibrahim prize. It is meant to encourage leaders to hand over power when their term has finished, or when people have voted for a different leader.



Dr Mo Ibrahim

The prize is given to former African leaders who have peacefully handed over power to a successor. To win the award they must have also made a good job of governing their country. So, during their time as leaders, winners must have been honest and run their nations lawfully. They also must have helped, or tried to have helped, everyone living in their countries.

The prize is awarded by a specially chosen group of people. This group does not include Dr Ibrahim.

The Ibrahim Prize is one of the most valuable awards in the world. Winners receive a payment of US\$5 million (£3.1 million). In addition they are paid US\$200,000 (£125,100) every year for the rest of their lives.

The last person to be given the award was Pedro Pires in 2011. He is a former president of Cape Verde. Cape Verde is a group of islands, or archipelago, in the Atlantic Ocean. It used to be a colony of Portugal and became an independent nation in 1975. The population of Cape Verde is about 500,000.

The prize was first awarded in 2007. Then it went to a previous

president of Mozambique, Joaquim Chissano. The only other person to have won the prize is Festus Mogae. Before being given the prize he was Botswana's president.

As well as awarding the prize Dr Ibrahim's organisation, or foundation, creates a list of the 52 countries in Africa. This is called the Ibrahim Index of African Governance (IIAG). Each nation is given marks for a number of reasons. These include how the country is run and how well its people are looked after. The highest total mark is 100.

This year Mauritius came top with a score of 83. Botswana was second with 78. Other countries near the top were Cape Verde, the Seychelles and South Africa. Somalia, with a score of eight, was last. Others at the bottom of the IIAG were the Democratic Republic of Congo, Eritrea, Central African Republic, and Chad. ■

MECCA'S HAJJ PILGRIMAGE

Around two million Muslims travelled to Mecca to take part in this year's Hajj. Mecca is the Islamic religion's holiest and most important city. The Hajj is an annual [pilgrimage](#), which lasts for five days.

This year the Hajj began on 13th October. It takes place during the final, or 12th, month of the Islamic calendar. This is a lunar calendar, so it is based on the cycles of the Moon. The lunar calendar is shorter than the international, or Gregorian, one. This is why the Hajj happens at slightly different dates each year. For example, last year's Hajj was between 24th and 29th October.

There are about 1.6 billion Muslims in the world. It is the duty of all Muslims to travel to Mecca for



the Hajj at least once in their lives. This is as long as they are healthy enough, and can afford to go on the pilgrimage.

The Hajj is what's known as one of the 'five pillars' of Islam. This means it is one of the most important, or fundamental, things on which Islam is based. A pilgrimage to Mecca is a spiritual journey. It is meant to help Muslims commit to their faith and cleanse their souls.

The pilgrims perform ceremonies that represent important ideas of the Islamic faith. As well as visiting Mecca, they travel to Mina and the valley of Mount Arafat to perform different rituals. For instance, at Mina, pilgrims throw stones at pillars called the Jamarat. This represents throwing stones at the Devil. Mina is about five kilometres (three miles) from Mecca.



The Grand Mosque during the Hajj (Al Jazeera)

Nowadays pilgrims travel to Mina by road, using one of the 20,000 buses, or on a specially built electric train. Yet many still decide to walk. At Mina, Saudi Arabian authorities have built a camp for the pilgrims. It has 45,000 large tents. Each is made from a special material that cannot catch fire. This year about 100,000 soldiers were on duty during the Hajj. They help to make sure that the pilgrims are safe and there are no problems.

At the end of the Hajj, pilgrims return to Mecca for a special

ceremony. They walk around the Kaaba, a cube-shaped building draped with black cloth. This is in the centre of Mecca's Grand Mosque. This mosque is what Muslims face, wherever they are in the world, when they take part in daily prayers. The pilgrims walk round, or circle, the Kaaba counterclockwise. This is so their hearts face towards it.

This year there were some worries about a virus called MERS (Middle East respiratory syndrome). This virus causes flu-like **symptoms**. Yet it can be much more dangerous. A doctor in Egypt first discovered this virus last year. So far it is known to have killed 60 people. Of these 51 have been in Saudi Arabia.

People from over 180 countries normally travel to Mecca for the Hajj. Some feared that these people might help to spread the virus to their home countries. However, officials from Saudi Arabia insisted that this was very unlikely to happen. ■

JELLYFISH SHREDDER

Scientists from South Korea recently announced that they had successfully tested several new robots. They have been named JERO. This stands for Jellyfish **Elimination** Robotic Swarm. The floating robots have been designed to find and then 'chop up' swarms of jellyfish.

Giant swarms of jellyfish are often called 'blooms'. Many people believe that jellyfish numbers have been increasing. Nowadays, it is not unusual to hear reports of large blooms of jellyfish in different parts of the world.

Some researchers believe that there are several reasons for these jellyfish swarms. One is overfishing. In recent years too many fish have

been caught in the oceans and seas. Certain types of fish will eat baby jellyfish before they grow bigger. Like jellyfish, other fish also eat zooplankton. These are tiny marine creatures. If there are fewer fish, jellyfish have more zooplankton to feed on.



Jellyfish swarm

Another reason for more jellyfish is what's known as 'nitrogen run offs'. This nitrogen comes from fertilizers that are used on farms. It washes into rivers that then flow out to sea. Jellyfish also eat phytoplankton. These are tiny marine plants. The extra nitrogen from the fertilizers mean phytoplankton reproduce more quickly. So the jellyfish have a better supply of food.

Another problem is shipping goods around the world. This has been changing some ocean ecosystems. Large cargo ships, which are empty, may take on seawater in specially built tanks. This is called ballast. The weight of the ballast keeps the ship stable. A cargo ship may take on ballast in one part of the world and then release it in another. If this ballast contains jellyfish they can be carried to other areas of the world.

Some jellyfish can sting. These stings can be very painful and sometimes even dangerous to humans. Recently several towns on the coast of Australia and around the Mediterranean Sea have had to stop people swimming in the sea because of swarms of stinging jellyfish. In some places long nets are used to

stop the jellyfish from getting too close to the shore.

Some nuclear power stations have also had problems with jellyfish blooms. These power stations use large amounts of seawater to cool their reactors. If it contains a lot of jellyfish the cooling systems may stop working. When this happens a power station has to shut down. In recent years 'jellyfish' shutdowns have happened in India, the USA, the UK, Sweden, the Philippines, and Israel. One power station in Japan had to remove around 150 tonnes of jellyfish from its cooling pipes in one day.

The scientists in South Korea say that each of their floating robots can suck up and destroy about one tonne of jellyfish every hour. The robots work in groups of three. They are controlled by GPS (Global Positioning System).

Some researchers say that JERO may not be such a good idea. Certain jellyfish species may 'regenerate' after being cut up. So if they are cut into four pieces there may be four new jellyfish. Shredding other species might release huge amounts of eggs and sperm into the water all at the same time. If these meet even more jellyfish blooms could appear. ■

CYCLONE PHAILIN

A powerful cyclone struck the east coast of India on 12th October. The worst affected area was the state of Orissa. Local officials said it was one of the largest storms to hit this part of India for 20 years.

Cyclones are storms that bring powerful winds and heavy rainfall. Similar storms in the Atlantic and eastern Pacific Oceans are known as hurricanes. In the western Pacific Ocean they are called typhoons. Once

cyclones, hurricanes or typhoons hit land they gradually weaken.

When these powerful storms first form they are given a nickname. The storm that hit Orissa was called Phailin (pronounced pailin), which means sapphire in the Thai language. A sapphire is a valuable gemstone that is blue in colour.



Phailin first started as a small storm in the Gulf of Thailand. It then moved into the Bay of Bengal. When these types of storms travel over the sea they usually get much bigger and more powerful. Cyclone Phailin passed close to the Andaman Islands and then began to head towards India's western coast.

In 1999 a similar sized cyclone hit Orissa. Then, 15,000 people died and over 1.5 million lost their homes. Around 400,000 farm animals were killed and large areas of crops destroyed.

Because of what happened 14 years ago local officials began to get ready for the storm several days before it arrived. Nowadays the scientific equipment used for tracking these storms is much better. Satellite pictures showed that the cyclone covered a wide area. It was about 1,600 kilometres (1,000 miles) across. From satellite images

it looked as if the huge storm covered the whole of the Bay of Bengal.

In Orissa over 600,000 people, who live near the coast, were ordered to leave their homes. Officials said they had to move to higher ground farther inland. Others were instructed to go to specially built cyclone shelters. Many worried about a storm surge. Powerful cyclones can cause the level of the seawater to be much higher than normal. This can then flood inland. When Phailin hit the coast its wind speeds were about 209 kilometres (130 miles) per hour.

In Orissa hundreds of thousands of homes were damaged. Many electric power lines were blown down. Fallen trees blocked roads and railway lines. The heavy rainfall caused serious flooding. Thousands of square kilometres of rice fields, or paddies, were ruined. Crops of vegetables, corn and peanuts were also badly damaged.



Satellite picture of Cyclone Phailin (NASA)

People feared that, similar to 14 years ago, there would be many deaths. Yet this did not happen. Officials said that about 20 people were killed by the storm. Even the storm surge was lower than expected. This was because the cyclone hit at low tide. The early warnings were probably the main reason why there were far fewer deaths. Also, the moving of people inland from the coastal areas was well organised. ■

WORLD SOLAR CHALLENGE

On 10th October an unusual car was the first to cross a finishing line in the city of Adelaide, in Australia. The solar-powered car, called Nuna 7, had won the Bridgestone World Solar Challenge.

The World Solar Challenge takes place every two years. The first one was held in 1987. Teams from universities and companies, from around the world, are invited to take part. The Bridgestone Company sponsors the race. Bridgestone is a large Japanese company that makes tyres for cars, buses and trucks.



Nuna 7 (Nuon Solar Team)

The race starts in the city of Darwin and finishes in Adelaide. So the competitors drive across Australia from north to south. The total distance is 3,021 kilometres (1,877 miles). The route crosses the desert areas of central Australia. Few people live in this part of the country, which Australians call the 'Outback'.

The cars taking part in the competition do not use petrol. They have to run on solar power. However, the cars are allowed to generate some power from their own movement.

The race began on 6th October. Those taking part could drive from eight o'clock in the morning to five o'clock in the evening. During the night the drivers camped by the roadside.

The Nuna 7 was designed and built by students from Delft University of

Technology, in the Netherlands. This university is often called TU Delft. 'Nuna' means 'now' in Icelandic. TU Delft first entered the World Solar Challenge in 2001. Then, its solar-powered car, called Nuna 1, came first. Since then TU Delft has won the race another four times.

This year Nuna 7 took a total of 33 hours and 5 minutes to travel from Darwin to Adelaide. The solar car travelled at an average speed of 90.7 kilometres (56.4 miles) per hour. A car built by students from Tokai University, in Japan, was second. Their car reached Adelaide about two hours after Nuna 7. A total of ten cars took part. Not all completed the race.

The last Solar Challenge was won by Tokai University. This year's winning time was slower than the one in 2011. This was because the organisers changed the rules. Now, all cars have to have four wheels. Before they could have three. A four-wheeled car means the driver sits in a more upright position. Therefore, the wind [resistance](#) is greater.



Winner of the Cruiser Class competition

This year a new competition was introduced. Called 'Cruiser Class', this is for solar-powered cars that look more like normal vehicles. These cars also carry passengers. Cars like Nuna 7 are designed to be as fast as possible. Cruiser Class cars are slower.

A team from the city of Eindhoven, in the Netherlands, was judged to be

the winner of the Cruiser Class competition. A German group came second. The winning car does not have to cross the finishing line first. This is because the cars are given extra points for things such as number of passengers and luggage space.

The next World Solar Challenge will be in 2015. ■

NUCLEAR FUSION MILESTONE

Scientists working at the National Ignition Facility (NIF), in California, in the USA, have recently completed an important experiment. Reports say the result of this experiment is an important step, or milestone, in the [quest](#) to create electric power from nuclear fusion.

Building work on the NIF began in 1997. Inside the ten-storey building is a specially built, very strong concrete chamber. Within this chamber scientists hope to be able to recreate what happens inside the Sun. This is a process called nuclear fusion.

Everything around us is made of tiny particles called atoms. In turn, each atom is made of even smaller particles. The largest of these are called electrons, protons and neutrons. The atoms of different substances contain different numbers of electrons, protons and neutrons.

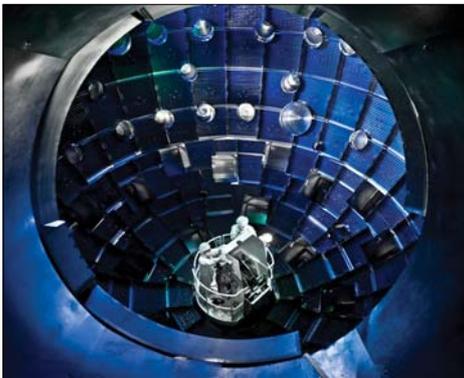
In ordinary nuclear power plants, atoms are split using a process called nuclear fission. Uranium atoms are [bombarded](#) with neutrons, making the uranium atoms split into two. This releases more neutrons and large amounts of energy.

However, nuclear power stations create radioactive waste. This is difficult and dangerous to get rid of or store. These power stations can also leak dangerous radioactivity if

damaged in an accident or attack. For example, two and a half years ago a Japanese nuclear power station was struck by an earthquake and tsunami, or giant wave. Since then workers at the plant have found it difficult to stop some radiation leaks.

Nuclear fusion is the opposite of nuclear fission. It is the process by which stars like the Sun release energy. In fusion, atoms join together rather than split.

Inside the Sun, hydrogen atoms join to make a gas called helium. This releases a huge amount of energy. At the NIF, scientists are using two forms of hydrogen for fusion. One, called deuterium, is found in seawater. The other, tritium, can be made from lithium, which is found in soil. Deuterium and tritium can combine to make helium.



Scientists inspect the chamber, in the NIF building, where lasers create nuclear fusion

The Sun's nuclear fusion happens at extremely high pressure and at temperatures of more than ten million°C (18 million°F). Scientists can increase the pressure in their experiments, but cannot equal that of the Sun. Instead, the NIF scientists are able to increase the temperature to more than 100 million°C (180 million°F). To do this they use 192 laser beams. These come from the world's most powerful laser.

In the chamber all the lasers can be directed at a capsule the size of a

pea. This capsule contains a mixture of deuterium and tritium. For a tiny fraction of a second, these lasers can emit 500 trillion watts of energy. If this makes the hydrogen atoms in the capsule join together a large amount of energy is created.

However, a lot of energy is needed to power the lasers. Scientists at NIF have been trying to achieve what they call **ignition**. This is when energy produced by the reaction is more than the energy needed to work the lasers. If this happens some of the energy could be used for the lasers and the 'extra' used to make electricity. This is what's known as a self-sustaining reaction.

The NIF's recent experiment is believed to be a **breakthrough**. For the first time, the energy created by the fusion reaction was more than that needed to power the lasers.

The big advantage of nuclear fusion is that it could make 'clean' energy. It does not produce carbon dioxide like power stations, which burn oil, gas or coal. And, unlike today's nuclear (fission) power stations, it does not create dangerous radioactive waste. ■

MALALA AWARDED TWO PRIZES

Malala Yousafzai (pronounced u-sef-zai) has recently been awarded two prizes. Most people know Ms Yousafzai by her first name. Malala is a teenage girl from northern Pakistan. She survived being shot in the head by a Taliban supporter.

Malala had been campaigning for better education for girls in her country. The Taliban believe people should follow very strict Islamic laws. One of the Taliban's beliefs is that women should not go to school or university.

Malala was shot one year ago on 9th October. Afterwards she was quickly taken to a local hospital. Malala was then flown to the UK for special treatment and several operations. These were done at a hospital in Birmingham, one of the biggest cities in the country. Now Malala and the rest of her family all live in Birmingham.



President Barack Obama, his wife, one of their daughters and Malala at the White House

Malala was given one of the awards on 5th October. The presentation took place in London, the capital of the UK. The prize is called the Anna Politkovskaya Award. It is awarded by an organisation called Reach All Women in War, or RAW in WAR. The prize is named after a journalist from Russia.

Politkovskaya was shot and killed in 2006. The person who murdered her is yet to be caught. At that time Russia was fighting a war in one of its small southern republics called Chechnya. Islamic groups in the republic wanted Chechnya to become a separate country. Many people think Politkovskaya was murdered because of some of the news stories she wrote. These criticised what the Russian army was doing in Chechnya.

The Anna Politkovskaya Prize has been awarded each year since 2007. RAW in WAR says the prize is given to women who help people in a war, when there is a risk that they might be killed or badly injured.

On 10th October the European Parliament announced that Malala had been awarded the Sakharov Prize. This prize is named after Andrei Sakharov (1921 – 1989). Sakharov was a Russian nuclear scientist. In the 1950s he helped to design some of Russia's most powerful nuclear weapons. Then, Russia was a communist country and the Russian-led Soviet Union was an enemy of the USA and many European nations.

Later Sakharov became worried about his work and, if there was a nuclear war, the effect it might have on the world. He then tried to make people aware of the dangers of Russia and the USA making more and more nuclear weapons. This got him into trouble with the Soviet authorities. After this he was not allowed to leave the small apartment that he lived in.

The European Parliament is based in Brussels, the capital of Belgium. It set up the Sakharov Prize in 1988. Each year it is given to people or groups who have worked for human rights and 'freedom of thought'. Freedom of thought means being able to have your own ideas, or views.

On 11th October Malala visited the White House in Washington DC, the capital of the USA. This is where the American president lives. Malala was invited to the White House to meet with President Barack Obama and his wife Michelle.

Malala has now become well-known all around the world. However, some people in Pakistan say they do not understand why. They complain that in recent years there have been many American drone attacks in the north of the country. These have killed a number of innocent

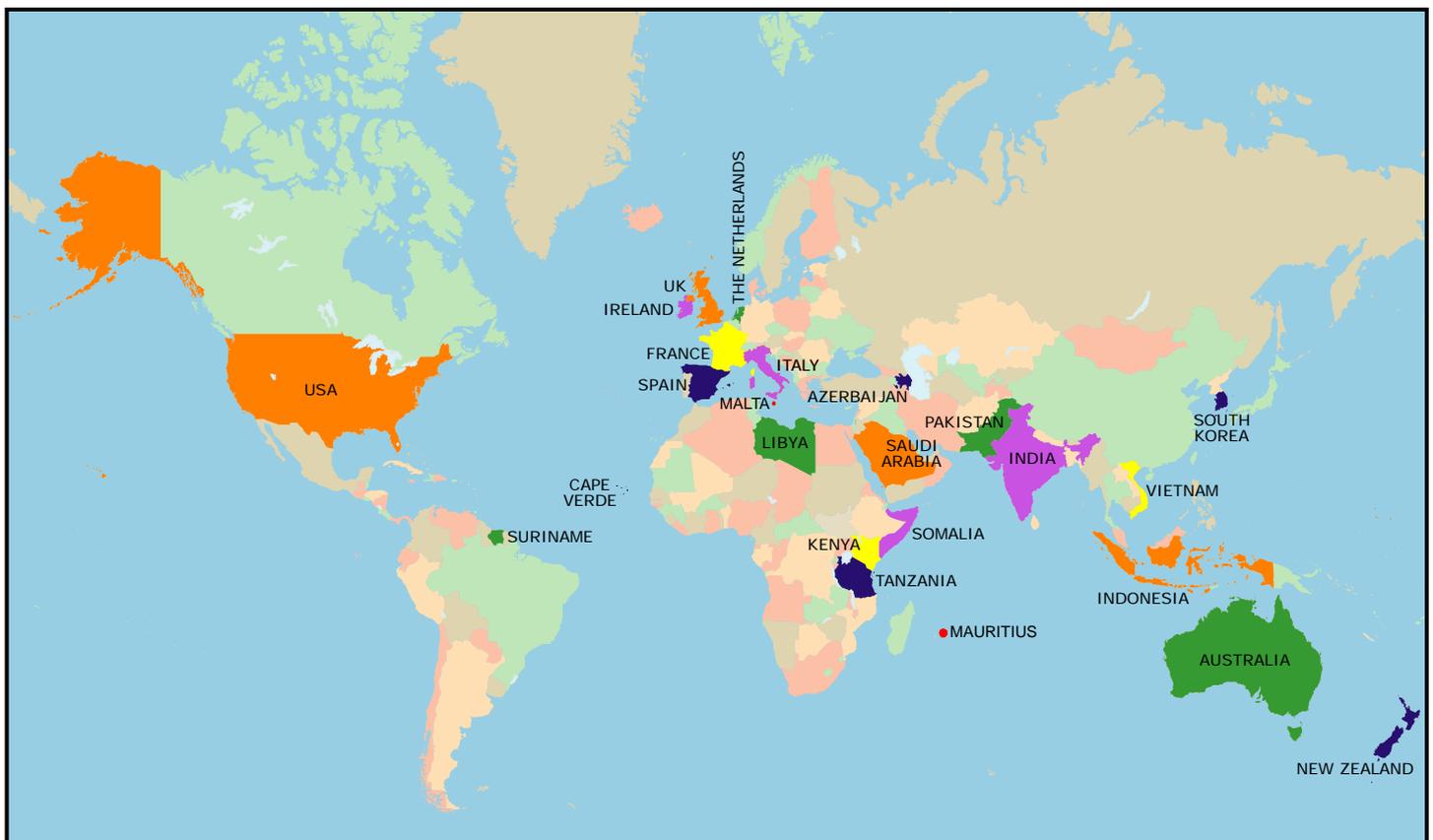
people. Yet, these Pakistanis say, nobody remembers those who died or were injured in these attacks. ■

APEC IN INDONESIA

The APEC (Asia-Pacific Economic Cooperation) leaders' summit, or annual meeting, took place between 5th and 7th October. It was held on the island of Bali, which is part of Indonesia. APEC is an economic and political organisation. Susilo Bambang Yudhoyono, the president of Indonesia, hosted the summit.

APEC has 21 member countries, although it prefers to call them 'member economies'. Most members are countries that have coastlines around the Pacific Ocean.

Today APEC member economies are estimated to have about 40% of the world's population. Roughly 44%



This map shows countries to which news stories refer in this issue. Visit www.newsademic.com for more detailed world maps.

of world trade, or items that are made in one country and then exported to another, comes from APEC countries.

APEC members include large countries such as Canada, Russia and Australia as well as much smaller ones like Brunei and Singapore. The countries with the three largest economies in the world – the USA, China and Japan – are all APEC members.

The first APEC meeting took place in Australia in 1989. One reason the organisation was set up was to try to make it easier for member countries to trade with each other. Decisions at APEC meetings are made by **consensus**. This means it is unusual for there to be disagreements at the annual meeting.



Photographers take pictures of the APEC leaders in Batik shirts during the summit in Bali

This year Barack Obama, the president of the USA, did not attend the summit. Instead John Kerry represented America. Mr Kerry is the USA's secretary of state and therefore one of America's most important politicians. Mr Obama decided not to go to the summit because of political problems in the USA. At the time, the two main parties in America, the Republicans and Democrats, were unable to agree on the government's spending plans, or budget. While they argued about the budget the government was unable to pay many of its workers.

Indonesia is a Muslim country. Bali is unusual as most of those who

APEC MEMBER ECONOMIES

| | | |
|------------------|------------------|-------------|
| Australia | Japan | Russia |
| Brunei | Malaysia | Singapore |
| Canada | Mexico | South Korea |
| Chile | New Zealand | Taiwan |
| China | Papua New Guinea | Thailand |
| Hong Kong, China | Peru | The USA |
| Indonesia | Philippines | Vietnam |

live on the island follow the Hindu faith. It is a popular place for holidays. Many tourists from all over the world visit Bali. Nowadays, many of these visitors come from China.

Most of the talks and discussions during the summit were about trade. However, the 21 leaders were also able to relax. Mr Yudhoyono is known to like singing. He has even recorded several love songs. The Indonesian president found out that the last day of the meeting, 7th October, was Vladimir Putin's 61st birthday. Encouraged by the other leaders, Mr Yudhoyono played the guitar and sang 'Happy Birthday' to the Russian president.

One past tradition of the APEC summit was a special group photograph. In it, the 21 leaders wore the national dress of the host country. The photograph then often appeared on the front pages of international newspapers the day after the meeting. The American president Bill Clinton started this tradition in 1993. Then the APEC meeting was held in the USA. He persuaded the leaders to wear American leather flight jackets for a special group photograph.

In following years APEC leaders were photographed wearing many different types of clothing. These included Korean and Vietnamese national dress and Peruvian **ponchos**. Yet for the last three APEC meetings

in Japan, Hawaii (which is part of the USA) and Russia, this didn't happen. Suits were worn instead.

Mr Yudhoyono decided to revive, or bring back, the tradition. Each of the leaders was given a Batik shirt to wear for a group photograph. This picture included their **spouses**. Batik is a colourful, patterned type of cloth, which has been made in Indonesia for over one thousand years.

APEC members take turns to host the annual summit. Next year's meeting will be held in China. ■

WOMEN CAVE PAINTERS?

An American archaeologist called Professor Snow has recently completed a study on ancient cave paintings. He examined the hand pictures found in certain caves in part of Europe. Professor Snow says his work suggests that women, and not men, created many of these cave paintings.

Cave paintings that are thousands of years old are found in many parts of the world. These include Africa, Australia, North and South America and India.

Some of the world's best-known cave paintings are in northern Spain and south west France. These date back to a time called the Upper Palaeolithic, or Late Stone Age, between 40,000 and 10,000 years ago.

The paintings are on cave walls and ceilings. Many are of animals such as boars, bison, mammoths, deer and horses. Those that date back to 40,000 years ago are believed to be the world's oldest.

The people who created these paintings are known as hunter-gatherers. They did not grow crops but travelled around hunting for food and collecting fruit, nuts and berries.

Researchers know quite a lot about how and when the paintings in Spain and France were created. Some of the pigments, or colours, were made from different types of clays. For example, the colour reddish-brown was made out of a type of clay called ochre. Burnt wood or charcoal was used for black coloured outlines.

No one really knows what the cave paintings were for. Some researchers think it was a record of the animals people hunted and killed. Others believe making the paintings was some type of [ritual](#). Yet it cannot have been easy creating them. Many paintings are in parts of caves that are difficult to get to. Some were painted on cave roofs or other [inaccessible](#) places. What's more it must have been very dark. The only light the hunter-gatherers had would have been simple fire torches.

It's thought that the paintings were made in one of two ways. One was using a hollow tube, such as a piece of bone. This was filled with the paint mixture and then blown onto the wall. The other was a person putting the mixture in their mouth and then, by blowing through closed lips, spraying it onto the rock. Next to some of the paintings are outlines of hands. It looks as if someone placed their hand against the rock and then 'blew' or 'sprayed' paint at it.

Many years ago a biologist from the UK made a discovery. He noticed that women's ring and index fingers are about the same length. Yet men's ring fingers are usually longer than their index fingers. Humans have five digits on each hand. The first is the thumb. The next is called the index finger, after that the middle finger, then the ring finger and finally the little finger.



Spotted horse cave painting in France with hand outlines above and on the left

Professor Snow measured 32 hand pictures in eight different caves. He says that 24 of these were women's hands. Like many others Professor Snow thinks a handprint next to a picture is like a signature. If true, his work seems to show that, in this part of Europe, women did most of the cave paintings. Many people were surprised by the professor's study. Most researchers presume that men painted the pictures. This is because men are believed to have done the hunting. ■

WATER DISCOVERED OUTSIDE SOLAR SYSTEM

Scientists from the UK and Germany say they have discovered rocky pieces of [debris](#) that contain water. The debris comes from a large asteroid, or space rock, which is roughly 90 kilometres (56 miles) across. The asteroid is about 150 million light years from the Earth.

This is the first time water and rock have been found together outside our Solar System. To make their discovery the scientists used NASA's Hubble Space Telescope.

Researchers believe life might exist on some rocky planets that orbit a star. This would be more likely if the planets are about the same distance at which the Earth goes round the Sun. They have nicknamed this distance the 'Goldilocks zone' after a famous children's story. In it, Goldilocks tries some bowls of porridge belonging to three bears. One is too hot, another is too cold, and the third is 'just right' – not too hot and not too cold.

Our Solar System has both rocky and gas planets. The rocky ones are Mercury, Venus, the Earth and Mars. Mercury and Venus are closer to the Sun than the Earth. So they are too hot to support life. The Earth is in the Goldilocks zone, where it's not too hot and not too cold for there to be liquid water. Researchers think for any complex forms of life to exist on a rocky planet, there must be water.

Planets that orbit a star outside our Solar System are known as exoplanets. European astronomers discovered the first exoplanets orbiting distant stars in 1995. Since then around 1,000 exoplanets have been found. Most are thought to be either gas planets or rocky ones not within their star's Goldilocks zone. So far, signs of water have not been detected on any of them.

The asteroid the scientists have been studying is orbiting a white dwarf. A white dwarf is a dying star that has used up most of its fuel. Many millions of years ago this white dwarf, which has been named GD 61, was similar to our Sun.

The Hubble telescope was able to detect what elements are in the

debris around GD 61. This comes from the large asteroid. It is being gradually pulled, or ripped, apart by the force of gravity, which comes from the dying star. Eventually the whole asteroid will be 'eaten' or pulled into the white dwarf.

Hubble worked out that the asteroid's debris contained magnesium, silicon, iron and oxygen. This is what rocks are made of. Yet surprisingly the telescope found much more oxygen than expected.



Artist's impression of a white dwarf

The scientists are sure this extra oxygen comes from water. The amount of oxygen means the asteroid is about 26% water. This means it is similar to Ceres. Ceres is the largest space rock in the asteroid belt, which is between Mars and Jupiter. The Earth is roughly 0.02% water.

Most researchers believe billions of years ago there was no water on our planet. The water was then brought, or delivered, to the Earth by asteroids and comets, which crashed into it. The scientists think the water-rich asteroid shows water might have been delivered to planets in GD 61's solar system in the same way.

A star having asteroids but no planets is very unlikely. So there may have been at least one rocky planet with liquid water orbiting GD 61. If so this planet has probably

already been 'eaten'. One day a similar thing will happen to the Earth when our Sun becomes a white dwarf. Yet this will not happen for at least another five billion years. ■

NZ ISLANDS OFFICIALLY NAMED

On 17th October each of the two main islands of New Zealand were officially given two names. In English they are to be called North Island and South Island. They will also be known by their Maori names: *Te Ika-a-Maui* (North Island) and *Waipounamu* (South Island).

The Maori are the native people of New Zealand. They first settled on the two main islands around 800 years ago. The Maori are believed to have originally come from several Polynesian islands. Polynesia is the name used to describe over 1,000 islands in the central and southern Pacific Ocean. In the past many of the people who lived on these Pacific islands were expert sailors. They used the stars in the night sky to navigate, or work out which way to travel.



The first European explorers arrived in New Zealand in 1642. Yet it was not until the early 1800s that large numbers of them began

to live there. Most came from the UK. In 1840 Maori leaders and officials from the UK signed an agreement. This is known as the Treaty of Waitangi. The treaty officially made New Zealand part of the British Empire. In return the government of the UK said it would protect the Maori people's rights to their lands.

For many years there have been arguments about what the treaty of Waitangi really says. Some believe the British broke, or did not honour, it. One problem is that the English language version of the treaty is slightly different from the Maori version. This has led to disagreements. The treaty was signed on 6th February. This date, which is known as Waitangi Day, is the country's national day. Today around 4.2 million people live in New Zealand. About 15% are Maoris.

For many years most New Zealanders have called the two islands North and South Island. However, about ten years ago, government officials discovered that they had never been formally named.

On early maps the islands have different names. On some they are called New Ulster and New Munster. Ulster and Munster are two provinces on the island of Ireland. When the maps were made both provinces were part of the UK. People who left these Irish provinces to go to live in New Zealand gave them these names. Today Munster is in the Republic of Ireland and Ulster remains part of the UK.

On other old maps the southern island is marked 'Middle Island'. This is because there is another smaller island to the south of it. This much smaller island is called Stewart Island. Its Maori name is *Rakiura*. One government map, made in the

1950s, includes the Maori names for the North and South Islands.

A government official said that people could now use either name for both of the main islands. Most people in New Zealand agree with this decision.

The translation of *Te Ika-a-Maui* is 'the fish of Maui', *Waipounamu* 'the waters of greenstone' and *Rakiura* 'glowing skies'. The Maori name for their country is *Aotearoa*. This means 'the land of the long white cloud'. ■

NEW FEDERAL RESERVE BOSS

On 9th October, Barack Obama, the American president, announced that he wanted Janet Yellen to be the new Chair, or boss, of the Federal Reserve. The USA's Federal Reserve was set up about 100 years ago. If Ms Yellen becomes its new boss she will be the first woman to do the job.

The Federal Reserve – nicknamed 'the Fed' – is America's central bank. Most countries have a central bank. For example, the UK's central bank is the Bank of England and the Japanese central bank is the Bank of Japan. The 17 countries that use the euro as their currency have a 'joint' central bank. It's called the European Central Bank (ECB).

Central banks work alongside their country's government. They usually control the amount of money in use, and set the interest rate. This is the minimum amount of interest companies or people need to pay when they borrow money from banks. Central banks also keep a check on all the other banks in which people keep their money.

Normally the central bank's headquarters is in the country's capital

city. The headquarters of the Federal Reserve is in Washington DC. However, the ECB is based in Frankfurt, one of the largest cities in Germany.

As the American economy is the largest in the world the boss of the Federal Reserve is a very powerful person. The leaders of central banks in other countries often look to the Chair of the Fed for help and advice.



Janet Yellen

The Chair of the Federal Reserve is appointed for a term of four years. Ben Bernanke has been the Fed's boss since 2006. After completing two four-year terms he is due to stand down at the end of January next year. This is when Ms Yellen will take over.

Mr Bernanke has been in charge of the Fed during a very difficult time. He has had to deal with a number of serious problems. 2008 was the start of what many people now call 'the banking crisis'. A number of large banks, in both the USA and several other countries, got into difficulties.

Because of the banking crisis many countries went into recession. All governments try very hard to avoid recessions. This is when a country's economy gets smaller instead of bigger. Normally, in a recession people tend to spend much less money. Companies may have to

reduce the number of their workers. Some are forced to close down.

If countries' economies slow down it means their governments collect less money in taxes. This is a big problem, as in a recession governments actually have to spend more money. This extra money is needed to help people who have lost their jobs and cannot find new ones. Furthermore, to get their economy growing again governments are often advised to build new roads, railways and buildings.

Ms Yellen is an economist and professor. In the past she taught economics at Harvard University. She has worked for the Federal Reserve for many years. In 2010 she became vice-chair of the Fed. This meant she was one of Mr Bernanke's senior assistants. Ms Yellen's husband is also a well-known economist. Their son teaches economics at a university in the UK.

Before she takes up her new job Ms Yellen's appointment will have to be approved by members of the Senate. This is the upper house of America's Congress, or parliament. Most people believe that the majority of the Senate will agree with Mr Obama's choice. ■

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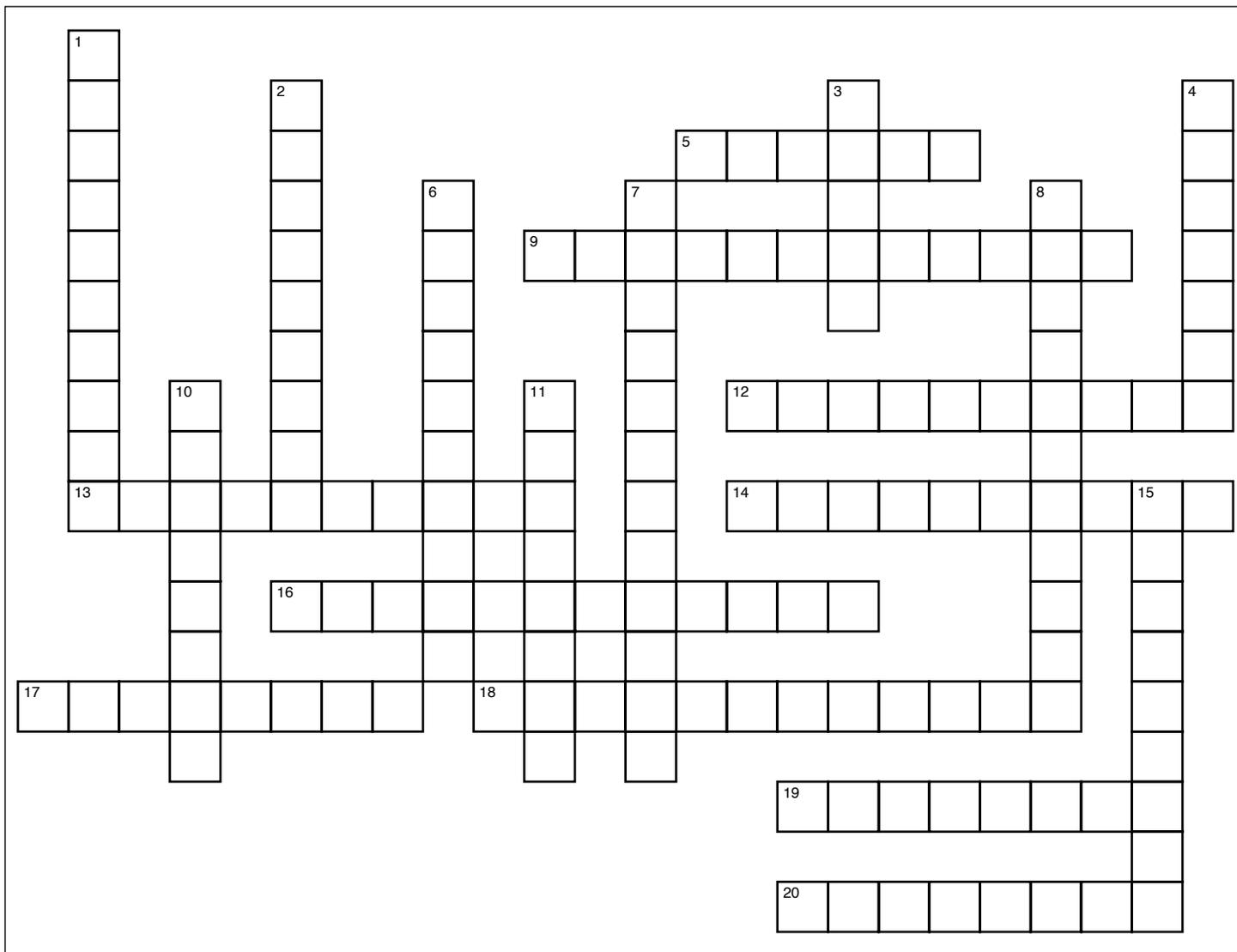
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ISSUE 208

GLOSSARY PUZZLE

INSTRUCTIONS: ① Complete the crossword. The answers are highlighted in orange in the news stories. There are 25 words highlighted and you need 20 of them to complete the crossword. ② Once you have solved the crossword go to the word search on the next page ➡



Across

- 5 *Noun* Action or words performed or spoken frequently as part of a ceremony
- 9 *Adjective* Impossible or very difficult to reach
- 12 *Noun (Plural)* Animals able to live both in water and on land
- 13 *Noun* Journey for a particular purpose
- 14 *Noun* A force that tends to slow down the speed of something
- 16 *Noun* Sudden important development or success
- 17 *Noun* An area of land where people are buried
- 18 *Noun* Something you do or give that helps to produce or achieve something
- 19 *Noun (Plural)* The signs of an illness or medical condition
- 20 *Verb* Produces and releases a substance

Down

- 1 *Noun* A journey to a holy place
- 2 *Verb* Directed many things at something or someone
- 3 *Noun* A search for something that takes time and is difficult
- 4 *Noun (Plural)* Peoples' marriage partners
- 6 *Adjective* Skilled at examining things very thoroughly and methodically
- 7 *Noun* Important source of nutrition and energy for animals
- 8 *Noun* The complete removal of something
- 10 *Verb* Overturned accidentally
- 11 *Noun* The process of making something begin to burn
- 15 *Noun* A general sense of agreement among all members of a group

ISSUE 208

GLOSSARY PUZZLE *CONTINUED*

INSTRUCTIONS: ③ Find 19 of the 20 crossword answers in the word search. Words can go vertically, horizontally, diagonally and back to front. ④ After finding the 19 words write down the 20th (or missing) word under the puzzle.

H G U O R H T K A E R B Y E E U J I
 D T U B I I X N C V S P L P E T T N
 T S E C R E T E S M O A D F L L L A
 E X P E D I T I O N M C E I I X S C
 G J H I O F E T D P E A U E M H B C
 A H M G P R P C H U N Y W G I V L E
 M M O D D M P I N A A E G Q N X S S
 I G T U Y E B N L A T T G G A M S S
 R N W S P I Z Y M A T Q W T T D U I
 G O F F A A T I R F H S Y Q I P S B
 L I X N R I Q D S S P E I P O F N L
 I T S X C G Y Y X P S M G S N W E E
 P I L A R H E R O Z A E R Q E E S Q
 M N L O O H L X Q A N C S I I R N U
 T G E B S J G Q T G D F B U T Y O E
 B I R D E D R A B M O B D K O U C S
 A A G W B K M I V I B L Y U X P A T
 C O N T R I B U T I O N F Q G M S L

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If you wish to earn additional Demics log in to www.newsademic.com, go to the Prize Competitions area and submit the missing word. Puzzle entries must be submitted by 10 pm on 30th October 2013 (GMT/UTC).*

MISSING WORD ANSWER = _____

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A C Q U I R E D