# Scientists spot new, huge energy waves coming out of Sun

INDEPENDENT.CO.UK

Scientists have seen huge, extrapowerful particles shooting out of the sun, in what they have described as a brand new solar phenomenon.

Researchers have for the first time ever spotted what they describe as "large-scale" waves being thrown out of the sun, together with energetic particles that seem to be thrown out by the waves. The scientists have long known that such particle emissions were happening - but couldn't explain how they were making their way into space.

The sun is continually throwing out huge, violent bursts of emissions into space. Some of those are well-known, such as coronal mass ejections, but the new waves are of a

new and are little understood.

"The new phenomenon is like a kind of explosion," said Radoslav Bucík, who led the research team.

Those waves are likely bringing with them particle flows that are much more rich in a light form of helium, helium-3, than normal. "We believe that the blast waves

accelerate the helium-3", Davina Innes, from the Max Planck Institute for Solar System Research (MPS), said in a statement. "Our analysis shows that typical

characteristics of the waves, such as their energy, influence the properties of the particles", colleague Lijia Guo, who also stationed at the MPS, said.

Helim-3 is a light, non-radioactie isotope of helium. It's very useful

and rare on Earth, but there is lots of it in space, including on the moon.

City

The researchers think that the events might happen fairly often. But because of the arrangement of the sun and the Earth, scientists aren't likely to get another look for a decade. The waves were found in data that

was collected in early 2010. The data came from STEREO A, one of two space probes launched in 2006 that circle the sun in opposite directions, and a Nasa spacecraft called Advanced Composition Explorer, which watches the sun from near Earth.

The research, titled 'Observations Of Euv Waves In 3he-Rich Solar Energetic Particle Events', is published in The Astrophysical Journal this month.

## Harassed for no crime

FROM PAGE 1 in human trafficking. The four members are Arifur

Raihan, Hasibur Rahman, Zakia Sultana and Firoz Alam Khan. They were released from the Dhaka Central Jail yesterday afternoon, said Shakil, a member of the NGO.

They had been running a shelter home renting a flat in the capital's Rampura where they provided a dozen street children with accommodation and food.

Monir, uncle of a 14-year-old boy named Mubarak who lived in the home, filed a case with Rampura Police Station accusing four people under the Prevention and Suppression of Human Trafficking Act 2012.

On September 12, police arrested the four and claimed to have rescued 10 children from the flat. On September 13, one of the chil-

dren was handed over to his family while the rest were sent to the Juvenile Development Centre in Gazipur.

2 of 4 victims know

However, the rescued children,

Gulshan Police Station Officer-in-

Charge Sirajul Islam even showed

this correspondent a copy of the

However, Lisa Dibra, an indige-

"There is no question of signing

nous woman, one of the four

injured, expressed surprised when

any such thing. Parts of my body are

still aching ... I suffered tooth injuries

her that her name was on the agree-

ment, she said someone else had

put her name there.

by at the time.

When this correspondent told

On October 12, a sport utility vehi-

cle (SUV) driven by Fareez Rahman, 16,

nephew of a former Awami League

lawmaker, was racing with another car

on a somewhat waterlogged Gulshan

street, said a policeman who was close

According to policemen present

at the scene that day, Fareez had

been drinking alcohol before the

ment when Fareez lost control of his

vehicle and drove onto the footpath,

ramming two rickshaws and

consciousness immediately. When I

woke up, I found myself at a hospi-

"I was hit from behind and lost

uprooting an electric pole.

Lisa was walking on the pave-

as I fell on the pavement," she said.

she was told about the agreement.

agreement at his office on Sunday.

aged between nine and 14, told media that they -- provided with care, food and security -- were happy in the shelter home.

They said no one ever tortured

Only Mubarak had complained that he was kept there for a day or two against his will. The case was filed following his complaint.

However, he too stressed that neither he nor the others were ever tortured or treated badly. One of the founders of the NGO

said they persuaded Mubarak to stay on in the home so that he could finish an educational course. Talking to this correspondent at

that time, the children said they had been staying at the house for at least six months. Following the arrests, there was

widespread protest in social media from different tiers of the society.

A Facebook post by a journalist on October 14 says Arif is a Computer Science and Engineering

tal," said the 24-year-old employee

the hospital that day was paid by the

driver's family. "The perpetrator

should pay for my treatment, but

that does not mean I will not seek

Star that he too did not sign any

wife of another injured Rafiqul

Islam who is still under treatment at

the United Hospital, said she had

not signed any agreement with

Asked, OC Sirajul yesterday said,

"The agreement was sent to the

police station by the vehicle owner's

family. I don't know who did and

crash scene said he is the nephew of

former Awami League lawmaker Dr

cops taking Fareez to Gulshan

Police Station surfaced on the social

newspaper the pictures that Fareez

Haque, Farid Uddin, Ali Bashar and

took of himself from his mobile

media. Police later freed him.

phone while driving.

Policemen who met Fareez at the

Soon after the crash, pictures of

One of Fareez's friends gave this

Lisa's husband told The Daily

On October 14, Shapla Begum,

Lisa said the money charged by

of a private firm.

justice."

agreement.

Fareez's family.

didn't sign it."

HBM Iqbal.

Another arrestee Hasib, who obtained A+ both in the SSC and HSC exams, could not attend his university admission tests due to the arrest.

Zakia and Firoz too were very compassionate towards street children.

The four, along with several others, established a school called Mojar School for homeless children.

Arifur said both the NGO and the

school are aimed at helping street children stand on their own feet. These are selfless initiatives run by their own incomes. He said most of the NGO mem-

bers contribute a good part of their incomes to the NGO fund.

"Police did not listen to us, nor did media. But we were confident that we'd be released as we did not commit any offence. We rather wanted to improve the lives of some street children," he said.

The NGO got government registration in January 2014.

Jyotirmoy Barua yesterday filed a

public interest litigation with the

Two dead as

Thai south

AFP, Bangkok

deep south.

bomb hits army

vehicle in restive

A large bomb buried under a road

killed two Thai army rangers and

wounded five others yesterday in the

kingdom's restive, Muslim-majority

The explosion was large enough

to knock the armoured vehicle

carrying the rangers off the road in

Saiburi district of Pattani province, a

hotspot in an 11-year insurgency

that has claimed thousands of lives.

"The bomb was detonated by

mobile phone as their vehicle

passed by on Monday morning,"

Colonel Panya Karawanan, com-

Shortly afterwards security forces

mander of Saiburi police, told AFP.

narrowly escaped a second attack,

when police were called to the scene

metres (miles) further up the road.

victims.

#### Migrants

FROM PAGE 16

Police expected thousands to join the "Patriotic Europeans Against the Islamisation of the Occident" demonstration in Dresden in the former communist East, as well as a large antifascist counter-protest.

ished after pictures surfaced in January showing its co-founder Lutz Bachmann sporting a Hitler moustache, but it has made a comeback since September, when Merkel opened the doors to a surge of asylum seekers.

The movement had all but van-

Angry protesters have accused her of "treason" and last week carried a mock gallows with

Merkel's name on it.

The chancellor yesterday again urged people to "stay away from those with hate in their hearts," her spokesman said. Merkel, hoping for Turkey's help

in slowing the migrant influx, held talks with President Recep Tayyip Erdogan in Istanbul on Sunday. The EU wants Turkey to tighten

border security and house more refugees in return for billions in financial help, visa liberalisation for Turkish citizens and an acceleration of its stuttering drive for EU membership. But Turkish Prime Minister

Ahmet Davutoglu said yesterday his country would not host migrants permanently to appease the EU. "We cannot accept an under-

standing like 'give us the money and they stay in Turkey'," he said. "Turkey is not a concentration camp." "As for fresh resources, we're

talking about a 3 billion euro amount in the first stage. But we don't want to fixate on this because the requirements may go up, and the assessment for this would need to be done annually," Davutoglu said. Merkel on Sunday offered

Turkey the prospect of support for faster progress on its bid to join the European Union in return for cooperation in stemming the flow of migrants and taking back those rejected by Europe.

### Durga Puja

FROM PAGE 16

devotees through the Bodhon rituals during the Mahashashthi,

High Court seeking trail of Fareez Like previous years, Bangladesh and adequate compensation for the cloths among poor children last evening.

Today, at the break of dawn, devotees will perform the Mahasaptami puja.

Mahasaptami Puja begins with the ritual of mahasnan. To perform mahasnan, a mirror is placed on a platter in such a way that the reflection of the goddess Durga is seen in the mirror.

It will be concluded with Devi bhog, gastronomic delight served to devotees, and Aarti, a special

Puja Udjapan Parishad Nirmal Chatterjee said Mahasaptami puja would end by 10:00am. The Prime Minister is scheduled

to visit the mandaps at Dhakeshwari and R K Mission today to exchange greetings with

This year more than 29,000 mandaps have been set up across the country, including 225 in Dhaka alone, to celebrate the occa-

The spectacular mandaps with colourful idols of the goddess gave a festive look to cities, urban centres and even rural villages of

The origin of Durga Puja can be traced back to the 15th century. With the ascent of Mughals, Durga Puja became more popular. Grand celebrations, gala feasts and huge

goddess Durga appeared in the midst of common people following the prayer of king Kangsha. Marking the occasion, the first Durga worship was arranged at Taherpur in Rajshahi in the Bengali month of Aswin in 1480 by Kangshanarayan.

It also has mythological precedence. The goddess's elderly son Ram had offered the puja at different times to seek blessing from the divinity to safeguard the people from the misrule of Lanka Raj Ravana.

the invocation and supplication of the formal start of the puja.

Puja Udjapan Parishad distributed

prayer offered by the priest. Joint Secretary of Bangladesh

hindu devotees, he said.

sion.

Bangladesh.

fanfare became part of the festival. According to Hindu mythology,

## Park or landfill?

FROM PAGE 16

collapsed due to inundation in recent times, they claimed.

A staff of the park, seeking anonymity, said the number of visitors had significantly dropped. He, however, could not say how many visitors come to the place daily since there is no ticketing system and visitors can visit it free.

Hedayet Ullah, caretaker of the park, claimed that they have a good number of visitors on holidays.

Mohammad Alam, a resident of Katalganj, said there used to be a lot of visitors to the park before, but the number has declined sharply.

Some 30 visitors were seen at the park during a visit there on Saturday afternoon.

One visitor, Parvin Akter, said the park could be turned into an attractive place for city dwellers if the authorities paid attention to it.

"Except for a few benches, there is no playground equipment like swings or merry-go-rounds for children," she said, adding that the walkways inside the park had also become muddy.

Contacted, Kazi Mohammad Shafiul Alam, chief executive officer of CCC, said they were filling up the place with mud as it is lower than the adjoining areas.

Boundary walls will also be built once the levelling is done, he added. Construction of two swimming

pools and a gymnasium on one side of the park is almost finished, he said, adding that the park would

also be developed, but it would take some time.

FROM PAGE 16

Meanwhile, lawyers Aneek R of a burning motorcycle a few kilo-

2 'JMB leaders'

prayer for 10-day fresh remand. The court granted five days for each of them.

On October 5, criminals slew Khijir entering his Badda residence. Around a week later, the duo - Tariqul Islam Tareque alias Mithu, a JMB organiser, was arrested from Tangail and Alek Bepari from Mirpur.

Police petitioned for fresh remand as they could not obtain any information about rest of the killers, investigators said.

#### কোল পাওয়ার জেনারেশন কোম্পানী বাংলাদেশ লিমিটেড Coal Power Generation Company Bangladesh Limited (CPGCBL)

### CORRIGENDUM

(An Enterprise of Government of Peoples Republic of Bangladesh)

Ref.: CPGCBL Memo no. 27.32.0000.002.031.012.14.951 Dated: 31.08.2015

As per request of interested bidders, the Bid Submission date of Invitation for Bids for Procurement of Plant Design, Supply and Installation of 132/33 KV Matarbari Sub-station on Turnkey Basis. (Package 4.2: Rural Electrification Component of Matarbari Ultra Super Critical Coal-Fired Power Project, JICA Loan Agreement No. BD-P76) is extended up to 12th November 2015 (11.00 AM). All the other terms and conditions of above bidding documents shall remain unchanged. Md. Mizanur Rahman

Company Secretary

## Gone in moments

crowded Tanti Bazar area where security has been beefed up for Durga Puja. Several Puja Mandaps have been set up in the area, and

incident, said locals. Asked, Abul Hassan, officer-in-charge of Kotwali Police Station, said he and several other policemen rushed to the spot hearing the gunshot.

law enforcers were only yards away at the time of the

The muggers mingled with the crowd before anyone could realise what had actually happened, he said. The OC said they collected footage of the CCTV cam-

eras installed at the bank branch and nearby markets.

None was arrested as of 1:00am today. Partha was under treatment at the National Institute of Traumatology and Orthopaedic Rehabilitation

## Photo that may end

FROM PAGE 16

Theories that the photo was a fake have been used to cast doubt on the evidence pointing to Oswald as the sole assassin of the president on November 22, 1963.

Oswald, killed before he could stand trial, claimed the photo, in which he brandished a rifle in one hand and Marxist newspapers in the other, had been faked when shown it by Dallas Police. Its veracity was examined by The Warren Commission and the House Select Committee on Assassinations.

Now researchers at Dartmouth College, New Hampshire, have used a new digital image forensics technique and a 3-D model of Oswald, for the study, published in the Journal of Digital Forensics.

"Our detailed analysis of Oswald's pose, the lighting and shadows and the rifle in his hands refutes the argument of photo tampering," said senior author Hany Farid, a professor of computer science and a pioneering researcher in digital forensics whose team develops mathematical and computational techniques to detect tampering in photos, videos, audios and docu-

Claims that the picture was a composite have centred on the lighting and shadows in the photo, said to be inconsistent. Oswald's facial features are inconsistent with other photos of him and the size of the rifle is inconsistent with the known length of that type of rifle, it has been argued. Oswald's pose is physically implausible, as it appears as if he is standing off balance, it is claimed.

rejected the claim that the lighting and shadows are inconsistent, but did not address claims that Oswald's pose is physically implausible. In the new study, Farid and his team conducted a 3-D stability analysis to determine if this claim was warranted.

Farid's team built a physiologically plausible 3D model of Oswald and posed this model to match his appearance in the backyard photo. By adding the appropriate mass to each part of the 3D model, they were able to perform a balance analysis on the 3-D model.

#### Govt steps FROM PAGE 16

invite our nationals to live in Bangladesh. Let's go on with our normal life."

About the investigation into the killing of Italian citizen, he said his understanding is that some progress has been made and more time is needed to get the full picture on the probe.

He hoped that the right culprits would be taken to custody.

About the suspected IS link to the murder, Palma said, "Your government says it was posted from Bangladesh and there could be some locals or individuals using IS

This analysis revealed that although Oswald appears off-balance, his pose is stable. The analysis also demonstrated that the lighting and shadows are physically plausible and the length of the rifle is consistent with the length of the rifle used to kill the president.

Farid said: "Our analysis refutes purported evidence of manipulation in the Oswald photo, but more generally we believe that the type of detailed 3-D modelling performed here can be a powerful forensic tool in reasoning about the physical plausibility of an image.

and weight, the 3-D human model that we created can be used to forensically analyse the pose, stability and shadows in any image of people." The Warren Commission and the House

"With a simple adjustment to the height

Select Committee on Assassinations had concluded that claims of photo tampering were unwarranted. Dallas police released photographs of

Lee Oswald holding the supposed murder weapon, taken by his wife Marina, the day after the murder.

### Bus passengers

FROM PAGE 16 fare hike has triggered an anarchic situa-

owners and their employees are so powerful that they even attacked the mobile The government is working to secure the Studies by Farid in 2009 and 2010 interest of the transport owners, overlook-

tion across the country. Sunday's bus strike

is an example of that anarchy. The bus

ing the passengers' interest, added Maksud. Eminent economist Prof Anu

Mohammad said transport owners, who have close relations with the government, were so powerful that they could do whatever they want and realise fares as much as they want. Blaming the gas price hike as the main

Mohammad said the government has hiked gas price irrationally. "We are thinking about taking legal action against the irrational gas price hike, which is the main cause of the

cause of the transport fare hike, Prof Anu

Consumer Association of Bangladesh (CAB). Among the complainants, Hena Begum of Keraniganj said, transport workers were taking Tk 50, instead of Tk 40, bus fare from

recent anarchy in public transportation

sector," said Golam Rahman, president of

Postagola to Airport. She said women and elderly people were frequently stopped from boarding buses even though there supposed to be reserved

seats for women. Passenger Khurshida Pathan of Jurain said her bus fare went up to Tk 13 from Tk 10 (from Postagola to Sadarghat) and the bus helpers take the same amount from stu-

#### Sylhet City Corporation

dents too.

Nagar Bhaban, Sylhet Website: www.sylhetcitycorporationbd.com

#### Invitation for Tender (IFT) Tender Notice No: 09/2015-16 (MGSP-05)

Ministry/Division Ministry of Local Government, the Development & Co-operatives. Sylhet City Corporation. Agency Procuring entity code N/A. Procuring entity district Sylhet. Procurement of Works. Invitation for Invitation reference No. Memo No: SCC/Engr/Elec-4/566/15/2463 18/10/15. Date

**KEY INFORMATION** Procurement method Open Tendering Method (OTM). **FUNDING INFORMATION** Budget and source of funds The source of public funds is Government of Bangladesh (GOB) and International Development Association (IDA). World Bank (IDA). Development partners Municipal Governance & Services Project (MGSP). Project/programme name 12 Price of Work Package Package Package name Tender Completion details No. tender security (BDT) document Period (BDT) (Days) 35,000.00 MGSP/SCC-Maintenance of 700.00 30 days O&M/2015-Street Light of

Shahjalal Bridge 16/01 Tender last selling date, Last selling date Closing date & Opening date closing & opening date time and time 17/11/2015 18/11/2015 18/11/2015 and time at at 1:30pm bank our 1:00pm Name & address of the Selling Receiving & opening office for selling tender a) Nagar Bhaban, Sylhet City Office

Sylhet Division, Sylhet. Sylhet Corporation. Deputy Commissioner, Sylhet. d) Project Director, MGSP, Level-6, LGED Bhaban, LGED, Agargaon, Dhaka.

Corporation.

b) Divisional

Commissioner,

Place/date/time of pre- N/A. tender meeting INFORMATION FOR TENDERER As described in the respective tender document.

Eligibility of tenderer Brief description of works

GD-3347

documents, receiving &

opening tender

Maintenance of Street Light. Tender shall be valid for a period of 120 days after tender opening and must be

accompanied with tender security specified above. The procuring entity reserves the right to accept or reject any/all tender(s) without assigning any reason whatsoever. Interested tenderer may obtain further information from the undersigned and purchase the tender document in Cash/Bank Draft the places mentioned above. The tenderer or their authorized representatives are allowed to attend the opening of the tender.

> Chief Engineer (In-Charge) Sylhet City Corporation

Secretary, Room No-

207, Nagar

Bhaban,

City

(Nitor).