

Space telescope to observe 'big eaters' in universe

China's new space telescope to be launched soon will probe many mysteries of the universe, including the belching "big eaters" – active galactic nuclei at the most remote edges of the universe.

Scientists have discovered that almost every galaxy has a supermassive black hole with a mass several million to several billion times that of the Sun at its center. With their mighty gravitational attraction, the supermassive black holes engulf the surrounding gas and dust.

When a black hole swallows too much, the excess matter is converted into two jet-flows perpendicular to the accretion disk of the black hole, which is like a glutton with a bloated belly belching.

The jet-flows and accretion disk of the supermassive black hole generate X-ray radiation strong enough to travel billions of light years. These galaxies have very bright nuclei – so bright the central region can be more luminous than the remaining galaxy. Scientists call them active galactic nuclei.

The Hard X-ray Modulation Telescope (HXMT), developed by Chinese scientists, will observe some active galactic nuclei. "Since the active galactic nuclei are very far from the Earth, our telescope can only detect the brightest ones," says Zhang Shuangnan, lead scientist of HXMT and director of the Key Laboratory of Particle Astrophysics at the Chinese Academy of Sciences (CAS).

The big eaters are full of mysteries. Scientists have found the double jet phenomenon is very common in galaxies with active galactic nuclei, but they don't understand why supermassive black holes cannot engulf all the matter falling into them.

Supermassive black holes are very different from black holes of stellar mass, which are formed when very massive stars collapse at the end of their life cycles. Scientists are still not clear how supermassive black holes are formed and grow, which is a key to understanding the evolution of galaxies.

HXMT's observation is expected to help scientists see the core region close to the event horizon of supermassive black holes at the center of active galaxies and gather information about the extremely strong gravitational fields, Zhang says.

Cybersecurity law starts for better personal info protection



Cybersecurity Law aims to “protect people’s interests.” [File photo]

China’s Cybersecurity Law will take effect on June 1, banning online service providers from collecting and selling users’ personal information.

The internet service providers cannot collect user information that is irrelevant to the services, and they should handle such information in line with laws and agreements, according to the new law that was adopted by China’s top legislature in November last year.

Users now have rights to ask service providers to delete their information if such information is abused.

Cybersecurity management staff must also protect information obtained, and are banned from leaking or selling the information, including privacy and commercial secrets.

Those who violate the provisions and infringe on personal information will face hefty fines.

The law also made it clear that no one can use the internet to conduct fraud or sell prohibited goods.

Several other regulations will come into force on June 1.

A regulation on online news requires individuals and groups to get government

permission before releasing news on instant messaging apps or social websites.

Civilian drones weighing more than 250 grams must be registered under real names to improve civil aviation safety.

An amended regulation on farming pesticide bans the use of highly toxic pesticides on edible agricultural products and strictly limits the use of pesticide.

Why more nationalisation is a bad idea

I was asked to explain why I do not favour nationalising the railways, the Post Office, the water industry and the energy utilities yesterday on the radio. It was a trip down Memory Lane to the arguments of the last century, when Labour made the case for continued or more nationalisation despite all the evidence of the damage their policies did.

Nationalisation was the best way to lose more employees their jobs, to charge customers more, and to sting the taxpayer to pay the losses. The coal industry lost most of its workers when nationalised. The workforce of 704,000 of the newly nationalised industry in the late 1940s had fallen to as few as 235,000 by the time of the election of the Margaret Thatcher government. Despite all the closures of mines and sackings, the losses mounted to be paid by taxpayers.

The railways under public ownership experienced continuous decline. In 1950 they employed 606,000 staff and had 19,471 miles of operating track. By 1976 then under a Labour government staff numbers had more than halved to 244,000 and route miles had fallen to 11,189. The market share of the railways halved, and the number of stations fell by two thirds. The nationalised steel industry too, under Labour and Conservative governments, spent most of its time discussing how to curb the losses by cutting back on capacity and jobs.

Labour say they wish to renationalise the railways. The truth is the main cost and the main assets of the railway are already nationalised. The tracks, signals and stations are owned by Network Rail, itself wholly owned by taxpayers and financed by the Treasury. Many of the delays which affect rail services are the result of signalling failures or other Network Rail caused events. It is Network Rail's job to expand capacity by improving signalling so more trains per hour can run on the railway.

I was asked why we did not buy shares in water companies whilst keeping in place current private sector management so we participate in the profits. I replied that we have other more important priorities for public spending. In the past government ownership of industries has not brought dividends and profits overall, but losses and the need for more subsidised capital.

The main way to improve service quality and bring down prices of utilities is to increase competition. That is what we need to do in some cases, as there is clearly room for improvement. What we do not want to do is to go back to a world where customers, employees and taxpayers all get a bad deal, which was the typical experience of our nationalised industries.

Labour's big nationalisation programme has not been costed and is unaffordable. From past experience it would lead to worse service and huge bills for taxpayers.

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Remarks at the unveiling of Hon Ken Wyatt' MP's portrait

PRIME MINISTER:

Yanggu gulanyin ngalawiri, dhunayi, Ngunnawal dhawra. Wanggarralijinyin mariny bulan bugarabang.

We are on the lands of the Ngunnawal people and we acknowledge that and we acknowledge their elders past and present.

I want to thank Aunty Matilda for that characteristic Welcome to Country, and the presence of little Evie.

It says a lot you know – come here Ken, I'm going to give this old guy a hug and then we will be crying into our teacups – look, it says a lot about us Australians that we can celebrate such a wonderful, historic occasion as this. Celebrate this unveiling of this portrait and do so with good humour, with love, with affection, with no rancour. Aunty Matilda who, as she said, had an appointment she had to head off and with her red coat and her wit, she set us all on the right track.

So Ken, thank you so much for everything that you do. Mary, thank you for painting this portrait. Thank you for revealing what we all know, that Anna lights Ken up. You were there, you were there. Was he being a bit stiff and shy? Then Anna came closer and that spark, that got him going. Fantastic.

Ken, you have followed 39 years after Neville Bonner. I should say that Neville Bonner's great-niece Jo Lindgren sends her love to you and to Anna and to everyone here today; another Aboriginal Australian who was a member of the Senate until recently.

But Ken was the first Aboriginal man to be elected to the House of

Representatives and as Bill said, over 1000 Australians have been elected before him. Too many. But now he's joined by Linda Burney, the first woman and, of course, following in Neville's footsteps in the Senate we've had many others; Aden Ridgeway you mentioned, Nova Peris – who of course is here and I will have more to say about her in a moment – Jo Lindgren and of course now Malarndirri McCarthy, Pat Dodson and Jacqui Lambie.

But Ken, you are also the first Aboriginal Australian to be a member of an Australian government. Again, that is long overdue. But it is one of the steps that our Government has taken, my Government has taken, to advance the voice of Aboriginal Australians, First Australians, in our Parliament, in our nation's affairs.

You bring with it an extraordinary personal quality. Ken has, the New Zealanders would call – it's a Maori word, it's almost untranslatable – they would call it 'mana'. Ken has a presence, a life-force, a calm, an aura. I'm not getting new-age here Ken don't worry. But you have got a presence and a calm and a wisdom that all of us are inspired by. Even our political opponents, as you can see.

So it is wonderful to be here with you; I want to thank you very much for your service. You have advanced that cause of reconciliation so much, simply by your advocacy, your presence, the love that you show. The way that you represent the people of Hasluck, the people of Australia that you represent too. You embody here, Buka and all, the oldest continuous human culture on our planet.

So I want, before we go to announce, to unveil the portrait, I want to make another announcement. That is, that we are commissioning two additional portraits. Firstly, one of former Senator Nova Peris, who was the first Indigenous woman to serve in the Senate. Also the Honourable Linda Burney, the first Indigenous woman to serve in the House of Representatives. Ladies and gentlemen, they will join Ken and Neville Bonner. That demonstrates the continuity of that historical collection that the Presiding Officer spoke of.

So congratulations, Mary, on your painting. It's a hard task portrait painting, capturing that mana. But you have done that and so Ken, I think it is up to us now to unveil you, if not to hang you.

That will be done by the Parliamentary staff of whom you have spoken so warmly, but I'll hang you with affection.

[ENDS]

[Yangtze to see first rainstorms this](#)

summer

Areas along the Yangtze, China's longest river, will soon be hit by the first round of heavy rainfall this flood season, authorities said.

According to a report published by the Yangtze flood control and drought relief headquarters Saturday night, the southern bank of the main stream of the river will receive moderate to heavy downpours and rainstorms, from May 30 to June 1.

The rain will mainly affect areas around the Wujiang River – the longest tributary on the southern bank of the upper reaches of Yangtze, and the Poyang and the Dongting – two large lakes on the southern bank of the middle reaches of Yangtze.

On May 30, Wujiang will see moderate to heavy rain. On May 31, Wujiang and the two lakes will see moderate to heavy rainfall or rainstorms. On June 1, the lakes will see heavy rainfall or severe rainstorms.

The headquarters asked the areas to strengthen flood control efforts, prevent disasters such as mountain torrents and landslides, and relocate affected people in a timely manner.