

NEWS

IBM: ‘PCs going the way of the typewriter’

On the 30th anniversary of a key computer, the era of the PC is coming to an end, according to one of the IBM designers who worked on the first model.

The days of the personal computer are numbered, a leading IBM designer has claimed. Dr. Mark Dean, who worked on the original IBM PC, the 5150, wrote in a blog post commemorating its 30th anniversary that “they’re going the way of the vacuum tube, typewriter, vinyl records, CRT and incandescent light bulbs”.

Dr Dean argued that PCs had created the environment for a new generation of devices, ranging across different form factors and uses.

This led, he claimed, to an environment in which technology allowed new ideas to flourish, without individual items being a barrier to creativity.

He wrote that “PCs are being replaced at the center of computing not by another type of device – though there’s plenty of excitement about smart phones and tablets – but by new ideas about the role that computing can play in progress.

These days, it’s becoming clear that innovation flourishes best not on devices but in the social spaces between them, where people and ideas meet and interact. It is there that computing can have the most powerful impact on economy, society and people’s lives.”

“While PCs will continue to be much-used devices, they’re no longer at the leading edge of computing,” he said.

IBM launched the 5150 on 12 August 1981, and it quickly established the look and feel of PCs in general. Dr Dean owns a third of the patents for it, and claimed he did not expect to outlive the idea. Now, however, he says that even his own main device is a tablet computer.

In a blog also marking the PC’s 30th anniversary, Frank Shaw of Microsoft claimed that the spread of new devices associated with computing was the start of the “PC-plus era”, rather than a sign of decline of traditional computing.

(Source: Daily Telegraph)



Gigantic birds walked the earth during dinosaur age

An enormous bird, taller than an adult human, walked the Earth (and maybe flew above it) more than 80 million years ago, according a newly discovered fossilized jaw. The finding suggests oversize birds were more common during the Age of Dinosaurs than scientists thought.

Scientists have long known that birds, or avian dinosaurs, lived during the Mesozoic, the era when dinosaurs ruled the Earth. Although researchers have discovered numerous Mesozoic bird species, these were virtually all the size of crows or smaller.

The ostrich-size Gargantuavis philoinos, was known from France, dating back from the Late Cretaceous near the end of the Age of Dinosaurs.

However, it was uncertain whether or not it was the lone exception among its puny relatives. Now another has popped up in Central Asia, revealing giant birds were no flukes.

“Big birds were living alongside Cretaceous non-avian dinosaurs,” researcher Darren Naish, a vertebrate paleontologist at the University of Portsmouth in England, told LiveScience.

“In fact, these big birds fit into the idea that the Cretaceous wasn’t a ‘non-avian-dinosaurs-only theme park’ — sure, non-avian dinosaurs were important and big in ecological terms, but there was at least some ‘space’ for other land animals.”

Naish added, “Badger-sized mammals, big, diverse land-living crocs and, we now know, really big birds all lived alongside non-avian dinosaurs in parts of the Cretaceous world.” He and his colleagues named the bird Samrukia nessovi — “Samrukia” after the samruk, the mythological Kazakh phoenix, and “nessovi” after Russian paleontologist Lev Nessov.

The toothless lower jaw came from a dry, hot, hilly site in Kazakhstan, though when this creature was alive — about 80 million to 83 million years ago — the area was a floodplain crisscrossed by big meandering rivers.

The size of the fossil suggests the bird’s skull was about 12 inches (30 centimeters) long.

There is no way to tell from the fossil’s structure or thickness whether the bird could fly. Based on its estimated size, the researchers calculate that if the creature was flightless, it probably stood 6 to 10 feet (1.8 to 3 meters) tall, about as big as its counterpart Gargantuavis philoinos; if it flew, it probably had a more than 13-foot (4 meter) wingspan.

“We can now be really confident that Mesozoic terrestrial birds weren’t all thrush-sized or crow-sized animals — giant size definitely evolved in these animals, and giant forms were living in at least two distinct regions,” Naish said. “This fits into a larger, emerging picture — Mesozoic birds were ecologically diverse, with lots of overlap between them and modern groups.”

The area has yielded a diverse assemblage of other fossils, and “Samrukia was conceivably in danger from tyrannosaurs, dromaeosaurs and other predatory dinosaurs of the region,” Naish said. Other creatures in the area included armored dinosaurs, duckbilled dinosaurs, other birds, turtles, salamanders and freshwater and brackish-water sharks.

It remains uncertain whether Samrukia was predatory, herbivorous or omnivorous. The “lower jaws don’t reveal any obvious specializations for, say, dedicated plant-eating, or feeding on aquatic prey — if I had to guess, I’d say it was a generalist, but this is just a guess,” Naish said. The “main thing we can hope for is new material that will provide more information on this bird — it would be great to know what role they were playing in these Cretaceous ecosystems.”

(Source: FoxNews)

Scientists cook up Jupiter’s atmosphere on Earth

On a rooftop in downtown Atlanta, a group of scientists are cooking up alien atmospheres. Their results will help astronomers understand the data that NASA’s Juno spacecraft will send back from Jupiter in 2016.

Jupiter’s cloudy bands and great red spot are visible with an amateur telescope. But the elements that compose them are more challenging to detect.

The Juno spacecraft launched on Aug. 5, and will spend the next five years journeying to Jupiter, the largest planet in the solar system. Using myriad instruments, the craft is expected to help scientists come to a greater understanding of the origins and composition of the gas giant.

As the largest planet in the solar system, Jupiter was most likely the first to form from the gas and dust that once circled the young sun. Details about its past provide clues to the early history and formation of other planets, including Earth.

But the planet has closely guarded the secrets of its atmosphere. Jupiter’s radiation belts block the lower frequency radio waves that provide details about of the lower atmosphere. Juno will overcome this problem by utilizing a path that avoids these belts.

When Juno reaches Jupiter, its Microwave Radiometer (MWR) will study the planet’s atmosphere in depth. Each of its six frequencies will penetrate the atmosphere, which is more than 3,000 miles (5,000 km) thick, to a different depth. This will allow the spacecraft to return details about the atmosphere at various heights.

But without something to compare the readings to, the signal will be indecipherable.

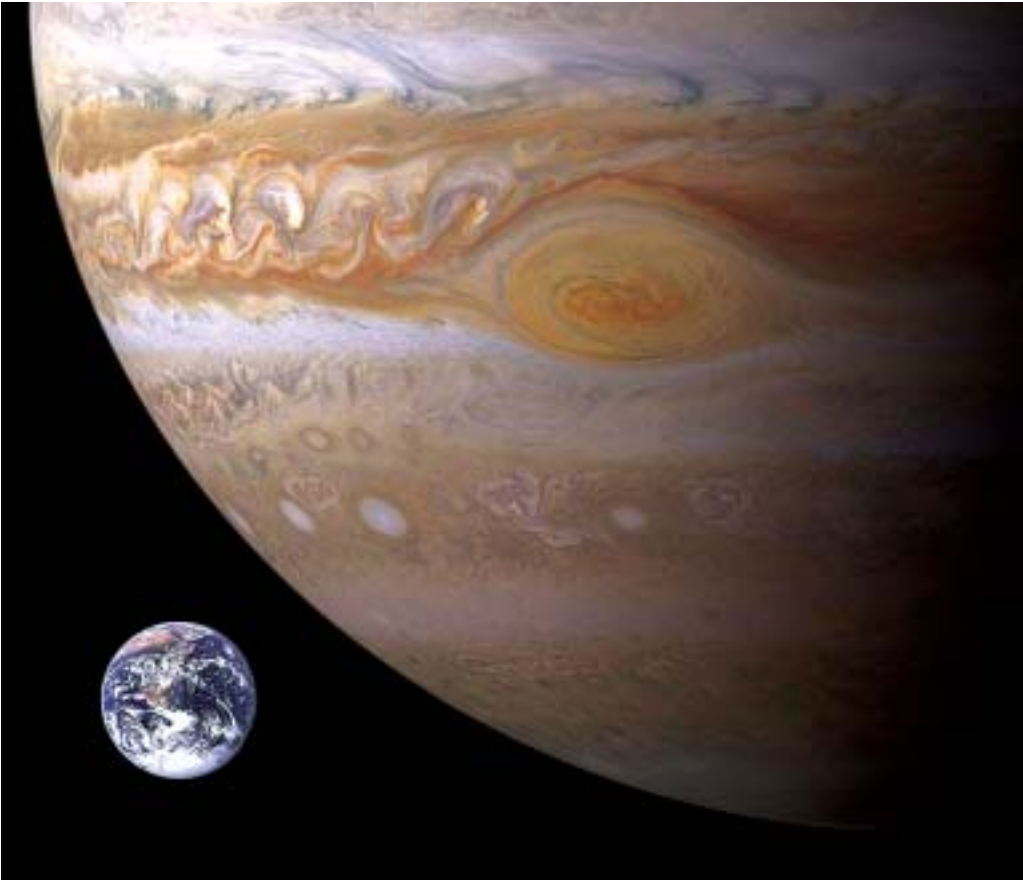
That’s where the simulator, which is essentially a pressurized oven, comes into play. Gases are assembled at a range of temperatures and pressures within, and scientists can then measure a variety of conditions that Juno is expected to record on Jupiter.

“We can mix together different ‘recipes’ for the Jovian atmosphere and place them in our simulator,” Paul Steffes of Georgia Institute of

Technology told SPACE.com in an email interview.

■ Simulations of gases

Steffes and his team have created over 5,000 different simulations of gases, changing temperatures and pressures to greatly resemble those that might be found on Jupiter. Each of these potential signals is being recorded for reference later. When Juno begins broadcasting the details of the planet’s cloud layers, scientists will be able to match the spacecraft’s findings with the simulated conditions to determine the true atmospheric composition in various locations and mixtures across the



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planet.

The simulations have already helped scientists identify the atmospheres of other planets.

“Our results have been used in interpreting radio measurements from Cassini at Saturn, and even older measurements made with Voyager at Uranus and Neptune,” Steffes said.

Key among the questions scientists hope to answer is how much water vapor is present in Jupiter’s atmosphere. This would help scientists understand how water survived the hydrogen-rich solar system.

Previous reports of water on Jupiter have been conflicting.

When the Comet Shoemaker-Levy smashed into Jupiter’s surface, it kicked up oxygen that indicated water in the atmosphere might be plentiful.

But, later data seemed to contradict these findings.

“In 1995, the Galileo probe detected some water on Jupiter,” Steffes said. “But the location was thought to be a very dry one, and not representative of the entire planet.”

The amounts returned were less than astronomers expected to find.

Since then, astronomers have struggled to determine just how much water vapor is in Jupiter’s air, but so far, the search has been without success. This should change once Juno enters into orbit around Jupiter.

Using the references created by the atmosphere simulator, Juno’s MWR will not only find the water, it will also be able to determine its altitude.

The “real question Juno MWR will address is the global inventory of water,” Steffes said. “This will be key to understanding the process by which Jupiter was formed.”

(Source: Space.com)

Never-before-seen fungus grown, named

ANN ARBOR, Mich. (UPI) — A fungus living underground for millions of years, known to science by its DNA but never seen, has been cultured, photographed and named, U.S. researchers say.

University of Michigan scientists say the fungus represents a new class of fungi, the Archaeorhizomycetes, one of a rich diversity of microorganisms living on Earth but out of our sight.

Although never before seen, the fungus was known to be extremely common in soil, its presence indicated in environmental DNA, genetic material from a living organism that is detected in bulk environmental samples of the soil or water in which the organism lives, a university release said Thursday.

“You couldn’t really sample the soil without finding evidence of it,” Timothy

James, a U-M assistant professor of ecology, said. “So people really wanted to know what it looks like.”

Research colleagues in Sweden made that possible when a study of mycorrhizal, fungi that colonize plant roots, turned up samples of an unfamiliar fungus.

“When culturing mycorrhizal fungi from coniferous roots we were exited to find that one of the cultures represented

this unfamiliar fungus,” Anna Rosling of the Swedish University of Agricultural Sciences said.

The researchers hope to find out through ongoing study exactly what role the fungus plays in nature and how it interacts with plants and other fungi.

“At this point we’re still in the early stages of understanding what it’s doing out there,” James said.

Onlive ‘cloud console’ to get UK launch



Onlive is to launch its cloud-based gaming service in the UK on 22 September.

The system, which has been available in the United States for more than a year, allows users to play games without a console.

Processing is done in data centers on specialized servers and streamed over the internet.

The company says it hopes to do deals with service providers to stop people exceeding their download limits.

As well as being available on PCs, Macs and tablet devices, Onlive offers its own micro console that can be plugged directly into HD televisions.

“There are some sacrifices,” said Scott Lowe, executive editor at games website IGN.

“You lose a little bit of the clarity and the graphics don’t stack up as well as something like a PC or a console, but you do get most of the major gist of the experience.”

Mr. Lowe said that Onlive had a number of advantages over a traditional games console, including the fact that users did not need to

install software or wait for updates to download.

He also praised its responsiveness. Playing fast moving games over an internet connection poses a number of technical challenges, including latency - the time the remote system takes to execute a command.

“They have put a lot of effort into making all the hardware really low latency and through all of our testing, they do deliver,” said Mr. Lowe.

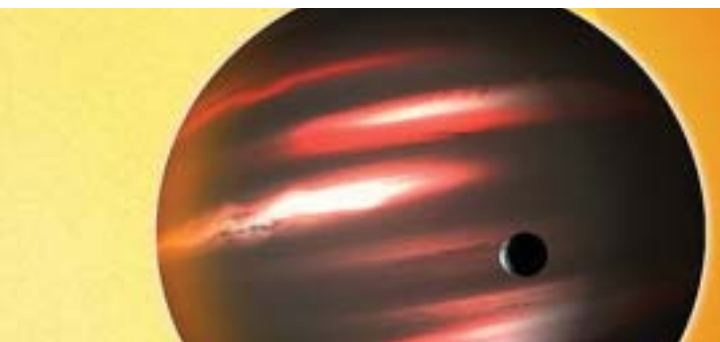
In an attempt to keep latency down, Onlive has opened a new European server facility in Luxembourg, placing its computing systems closer to the people that are going to be using it.

One concern with a service that relies on constantly streaming video - albeit compressed - over the internet is that users with monthly download limits may quickly exceed those.

Onlive’s lowest connection speed of 1Mb/s would consume around 450MB per hour. Some broadband packages cap usage at relatively low limits such as five or 10 GB per month.

(Source: BBC)

Strange planet is blacker than coal



A planet orbiting a distant star is darker than coal, reflecting less than one percent of the sunlight falling on it, according to a paper published on Thursday.

The strange world, TrES-2b, is a gas giant the size of Jupiter, rather than a solid, rocky body like Earth or Mars, astronomers said.

It closely orbits the star GSC 03549-02811, located about 750 light years away in the direction of the constellation of Draco the Dragon.

“TrES-2b is considerably less reflective than black acrylic paint, so it’s truly an alien world,” David Kipping of the Harvard-Smithsonian Center for Astrophysics said in a press release issued by Britain’s Royal Astronomical Society (RAS).

First spotted five years ago, TrES-2b races around its star at a distance of just five million kilometers (three million miles).

This is scorchingly close when compared to Earth’s 150-million-km (93-million-mile) distance from the Sun and Jupiter’s 778 million kms (483 million miles).

So fierce is the heat that the exoplanet’s atmosphere is cooked

to more than 1,000 degrees Celsius (1,800 degrees Fahrenheit).

Signatures from its atmosphere point to the presence of light-absorbing chemicals like vaporized sodium and potassium or titanium oxide.

But none of these substances can explain the planet’s darkness, which is more extreme than any planet or moon in our own Solar System.

“It’s not clear what is responsible for making this planet so extraordinarily dark,” said David Spiegel of Princeton University.

“However, it’s not completely pitch black. It’s so hot that it emits a faint red glow, much like a burning ember or the coils on an electric stove.”

More than 500 extrasolar planets have been identified since 1995.

TrES-2b, like our Moon, is believed to be locked by gravitational tide, presenting only one face to its star.

The study, published in the RAS journal Monthly Notices, used NASA’s orbiting Kepler spacecraft to make the observations.

(Source: AFP)