World News Roundup

Environment

More hazardous

Toxins 'turning up' in public water systems

HORSHAM, Pa, Aug 13, (AP): Lauren Woeher wonders if her 16-month-old daughter has been harmed by tap water contaminated with toxic industrial compounds used in products like nonstick cookware, carpets and fast-food wrappers. Henry Betz, at 76, rattles around his house alone at night, thinking about the water his family unknowingly drank for years that was tainted by the same contaminants, and the pancreatic cancers that killed wife Betty Jean and two others in his household.

Tim Hagey, manager of a local water utility, recalls how he used to assure people that the local public water was safe. That was before testing showed it had some of the highest levels of the toxic compounds of any public water system in the US.

Grevatt

"You all made me out to be a liar," Hagey, general water and sewer manager in the eastern Pennsylvania town of Warminster, told Environmental Protection Agency officials last month.

At "community engagement sessions" like the one in Horsham, residents and state, local and military officials are demanding that the EPA act quickly – and decisively – to clean up local water systems testing positive for dangerous levels of the chemicals, perfluoroalkyl and polyfluoroalkyl substances, or PFAS.

The Trump administration called the contamination "a potential public relations nightmare" earlier this year after federal toxicology studies found that some of the compounds are more hazardous than previously acknowledged.

PFAS have been in production since the 1940s, and there are about 3,500 different types. Dumped into water, the air or soil, some forms of the compounds are expected to remain intact for thousands of years; one public-health expert dubbed them "forever chemicals."

Priority

EPA testing from 2013 to 2015 found significant amounts of PFAS in public water supplies in 33 US states. The finding helped move PFAS up as a national priority.

So did scientific studies that firmed up the health risks. One, looking at a kind of PFAS once used in making Teflon, found a probable link with kidney and testicular cancer, ulcerative colitis, thyroid disease, hypertension in pregnant women and high cholesterol. Other recent studies point to immune problems in children, among other things.

In 2016, the EPA set advisory limits – without any direct enforcement – for two kinds of PFAS that had recently been phased out of production in the United States. But manufacturers are still producing, and releasing into the air and water, newer versions of the compounds.

Earlier this year, federal toxicologists decided that even the EPA's 2016 advisory levels for the two phased-out versions of the compound were several times too high for safety.

EPA says it will prepare a national management plan for the compounds by the end of the year. But **Peter Grevatt**, director of the agency's Office of Ground Water and Drinking Water, told The Associated Press that there's no deadline for a decision on possible regulatory actions.

Reviews of the data, and studies to gather more, are ongoing.

Even as the Trump administration says it advocates for clean air and water, it is ceding more regulation to the states and putting a hold on some regulations seen as burdensome to business.

In Horsham and surrounding towns in eastern Pennsylvania, and at other sites around the United States, the foams once used routinely in firefighting training at military bases contained PFAS.

"I know that you can't bring back three people that I lost," Betz, a retired airman, told the federal officials at the Horsham meeting. "But they're gone."

State lawmakers complained of "a lack of urgency and incompetency" on the part of EPA.

Concerns

"It absolutely disgusts me that the federal government would put PR concerns ahead of public health concerns," Republican state Rep Todd Stephens declared.

After the meeting, Woeher questioned why it took so long to tell the public about the dangers of the compounds. "They knew they had seeped into the water, and they didn't tell anybody about it until it was revealed and they had to," she said.

Speaking at her home with her toddler nearby, she asked, "Is this something that, you know, I have to worry? It's in her."

While contamination of drinking water around military bases and factories gets most of the attention, the EPA says 80 percent of human exposure comes from consumer products in the home.

The chemical industry says it believes the versions of the nonstick, stain-resistant compounds in use now are safe, in part because they don't stay in the body as long as older versions.

"As an industry today ... we're very forthcoming meeting any kind of regulatory requirement to disclose any kind of adverse data," said Jessica Bowman, a senior director at the American Chemistry Council trade group.

Independent academics and government regulators say they don't fully share the industry's expressed confidence about the safety of PFAS versions now in use.

While EPA considers its next step, states are taking action to tackle PFAS contamination on their own.

In Delaware, National Guard troops handed out water after high levels of PFAS were found in a town's water supply. Michigan last month ordered residents of two towns to stop drinking or cooking with their water, after PFAS was found at 20 times the EPA's 2016 advisory level. In New Jersey, officials urged fishermen to eat some kinds of fish no more than once a year because of PFAS contamination.

Washington became the first state to ban any firefighting foam with the compound.

Given the findings on the compounds, alarm bells "should be ringing four out of five" at the EPA, Kerrigan Clough, a former deputy regional EPA administrator, said in an interview with the AP as he waited for a test for PFAS in the water at his Michigan lake home, which is near a military base that used firefighting foam.

"If the risk appears to be high, and you've got it every place, then you've got a different level" of danger and urgency, Clough said. "It's a serious problem."

A picture taken late on Aug 12 shows meteors crossing the night sky past the Milky Way during the annual "Perseid" meteor shower, in the mountain area of Tannourine in northern Lebanon. (AFP)

This March 3, 2018 photo provided by Heather Anderson shows (from left), Navajo Mountain High School students Nahida Smith and Cuay Bitsinnie competing in an Utah regional robotics competition in West Valley City, Utah. The team from a remote town in southern Utah is now headed to an international robotics competition Aug 14 in Mexico City, Mexico. They were invited to compete in the First Global Challenge, which will draw teams from 190 countries to create robots capable of feeding power plants and building environmentally efficient transmission networks. (AP)

Hire

Gonzalez

Discovery

Tokyo tops innovative cities: Tokyo topped a list of the world's most innovative cities on Friday, leapfrogging London and New York after embracing the "globe-shaking trends of robotics and 3D manufacturing".

The Japanese capital has risen rapidly since entering the top 10 of the Innovation Cities Index three years ago behind Paris, and was one of three Asian cities to feature this year.

"What really surprised us this year was the resurgence of Tokyo, moving up to eclipse rival cities like Boston," said **Christopher Hire**, director of commercial data provider 2thinknow, which publishes the annual ranking.

"They showed clear direction by embracing smart technology change to lead innovation and leadership in what we have identified as the twin long-term globe-shaking trends of robotics and 3D manufacturing."

Singapore, Sydney and Seoul also ranked highly in the index, which judges cities on 162 indicators including web censorship, wealth distribution and the potential for green businesses. (RTRS)

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Paris peeved at public urinals: A new set of eco-friendly but completely exposed urinals deployed on the streets of Paris are provoking uproar from locals.

One of the bright red "urinoirs" installed on the Ile Saint-Louis, not far from Notre Dame Cathedral and overlooking tourist boats passing on the Seine, has caused particular indignation.

Locals have written to the town hall to demand its removal and are planning a petition.

"There's no need to put something so immodest and ugly in such an historic spot," said Paola Pellizzari, 68, owner of a Venetian art store.

"It's beside the most beautiful townhouse on the island, the Hotel de Lauzun, where Baudelaire lived," she said, referring to the 19th-century French poet.

She feared the urinal, installed around 20 metres (22 yards) from a primary school, "incites exhibitionism".

The designer of the "Uritrottoir" – a combination of the French words for urinal and pavement – said it offered an "eco solution to public peeing". (RTRS)

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Space

Mattis defends his reversal on Space Force

Probe on quest to unlock mysteries

CAPE CANAVERAL, Florida, Aug 13, (AP): Embarking on a mission that scientists have been dreaming of since the Sputnik era, a NASA spacecraft hurtled Sunday toward the sun on a quest to unlock some of its mysteries by getting closer than any object sent before.

If all goes well, the Parker Solar Probe will fly straight through the wispy edges of the sun's corona, or outer atmosphere, in November. In the years ahead, it will gradually get within 3.8 million miles (6 million kilometers) of the surface, its instruments protected from the extreme heat and radiation by a revolutionary new carbon heat shield and other high-tech wizardry.

Altogether, the Parker probe will make 24 close approaches to our star during the seven-year, $1.5 billion journey.

"Wow, here we go. We're in for some learning over the next several years," said Eugene Parker, the 91-year-old astrophysicist for whom the spacecraft is named.

It was Parker who accurately theorized 60 years ago the existence of solar wind – the supersonic stream of charged particles blasting off the sun and coursing through space, sometimes wreaking havoc on electrical systems on Earth.

This is the first time NASA has named a spacecraft after a living person.

As Parker and thousands of others watched, a Delta IV Heavy rocket carried the probe aloft, thundering into the clear, star-studded sky on three pillars of fire that lit up the middle-of-the-night darkness.

NASA needed the mighty 23-story rocket, plus a third stage, to get the Parker probe – the size of a small car and well under a ton – racing toward the sun, 93 million miles (150 million kilometers) from Earth.

A Saturday morning launch attempt was foiled by last-minute technical trouble. But Sunday gave way to complete success.

It was the first rocket launch ever witnessed by Parker, a retired University of Chicago professor. He said it was like looking at photos of the Taj Mahal for years and then beholding the real thing in India.

"I really have to turn from biting my nails in getting it launched, to thinking about all the interesting things which I don't know yet and which will be made clear, I assume, over the next five or six or seven years," Parker said on NASA TV.

Solve

Among the mysteries scientists hope to solve: Why is the corona hundreds of times hotter than the surface, which is 10,000 degrees Fahrenheit (5,500 degrees Celsius)? And why is the sun's atmosphere continually expanding and accelerating, as Parker theorized in 1958?

"The only way we can do that is to finally go up and touch the sun," said project scientist Nicola Fox of Johns Hopkins University. "We've looked at it. We've studied it from missions that are close in, even as close as the planet Mercury. But we have to go there."

A better understanding of the sun's life-giving and sometimes violent nature could also enable earthlings to better protect satellites and astronauts in orbit, along with the power grids so vital to today's technology-dependent society, said Thomas Zurbuchen, NASA's science mission chief.

Parker, the probe, will start shattering records this fall. On its very first brush with the sun, it will come within 15.5 million miles (25 million kilometers), easily beating the current record of 27 million miles (43 million kilometers) set by NASA's Helios 2 spacecraft in 1976.

By the time Parker gets to its 22nd, 23rd and 24th orbits of the sun in 2024 and 2025, it will be even deeper into the corona and traveling at a record 430,000 mph (690,000 kilometers per hour). Nothing from planet Earth has ever gone that fast.

Even Fox has difficulty comprehending the mission's derring-do.

"To me, it's still mind-blowing," she said. "Even I still go, 'Really? We're doing that?'"

The 8-foot (2.4-meter) heat shield will serve as an umbrella that will shade the spacecraft's scientific instruments, with on-board sensors adjusting the protective cover as necessary so that nothing gets fried.

A mission to get up close and personal with our star has been on NASA's books since 1958. The trick was making the spacecraft compact and light enough to travel at incredible speeds and durable enough to withstand the punishing environment.

"We've had to wait so long for our technology to catch up with our dreams," Fox said.

Also:

BRASILIA, Brazil: **US** Defense Secretary **Jim Mattis** said Sunday he is satisfied that creating a Space Force as a separate military service is the right way to reorganize the Pentagon's approach to space.

Mattis, who last year opposed moves in Congress to create a separate space service, said his emphasis then was on establishing a consensus about what the Pentagon's space problem is before recommending a way to fix it.

"I was not against setting up a Space Force," he told reporters flying with him to Brazil to begin his first tour of **South America** as defense secretary. "What I was against was rushing to do that before we could define the problem" that needed solving.

This, he said, is why he pushed back against efforts in Congress to create a Space Force. In a letter to Rep **Mike Turner**, an **Ohio** Republican, in July 2017, Mattis wrote, "I do not wish to add a separate service that would likely present a narrower and even parochial approach to space operations."

Orca back to feeding: Researchers say an endangered killer whale that drew international attention as she carried her dead calf on her head for more than two weeks is finally back to feeding and frolicking with her pod.

The Center for Whale Research in Washington state says it watched the orca, known as J35, chase a school of salmon in Haro Strait west of San Juan Island on Saturday afternoon.

The whales have been struggling because of a lack of salmon, and J35's calf died soon after birth on July 24.

The mother carried the baby on her head for at least 17 days, in an image of grief that struck an emotional chord worldwide.

She finally abandoned the carcass as it decomposed. (AP)

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In this Aug 5 photo, tourists observe the shore chock full of sargassum in Bahia La Media Luna, near Akumal in Quintana Roo state, Mexico. A Mexican environmental agency is constructing barriers at sea just beyond its famed Riviera Maya beaches to decrease the massive amounts of sargassum washing up onshore. (AP)

Manatees deaths ups questions: In the swampy wetlands of southern Mexico, officials and researchers are struggling to explain the deaths of dozens of manatees, the chubby marine mammals once confused with mermaids by ancient mariners.

Fishermen who navigate the muddy waters inland from the coast of Tabasco state have discovered since May at least 28 dead West Indian manatees, also known as sea cows, along the Bitzal River and nearby streams.

The cause of the deaths remains a mystery. Locals report deaths of fish in the river and blame polluted water in an area that is near onshore and offshore drilling projects operated by national oil company Pemex.

"Whenever you see a die-off like this of a long-lived animal, it can be a canary in a coal mine," said **David Gonzalez–Socoloske**, a tropical mammal ecologist at Andrews University, a small private college located in Berrien Springs, Michigan. (RTRS)