

If you would like to share news or information with our readers, please send the unique stories, business

news organization events, and school news to us includinig your name and phone number in case more information is needed.

For news and information consideration, please send to News@scdaily.com

281-498-4310

or contact John Robbins 281-965-6390

Jun Gai

Publisher: Wea H. Lee President: Catherine Lee Editor: John Robbins

Address: 11122 Bellaire Blvd., Houston, TX 77072 E-mail: News@scdaily.com



Inside C2



Tuesday, Febuary 02 2022

# Putin accuses U.S. of trying to lure Russia into war

KYIV/MOSCOW, Feb 1 (Reuters) - Russian President Vladimir Putin accused the West on Tuesday of deliberately creating a scenario designed to lure it into war and ignoring Russia's security concerns over Ukraine.

In his first direct public comments on the crisis for nearly six weeks, a defiant Putin showed no sign of backing down from security demands that the West has called non-starters and a possible excuse to launch an invasion, which Moscow denies. "It's already clear now ... that fundamental Russian concerns were ignored," Putin said at a news conference with the visiting prime minister of Hungary, one of several NATO leaders trying to intercede with him as the crisis has intensified.

Putin described a potential future scenario in which Ukraine was admitted to NATO and then attempted to recapture the Crimea peninsula, territory Russia seized in 2014.

"Let's imagine Ukraine is a NATO member and starts these military operations. Are we supposed to go to war with the NATO bloc? Has anyone given that any thought? Apparently not," he said.

Russia has massed more than 100,000 troops on the Ukrainian border and Western countries say they fear Putin may be planning to invade.

Russia denies this but has said it could take unspecified military action unless its security demands are met. Western countries say any invasion would bring sanctions on Moscow.

The Kremlin wants the West to respect a 1999 agreement that no country can strengthen its own security at the expense of others, which it considers at the heart of the crisis, Foreign Minister Sergei Lavrov said. read more

He raised the charter signed in Istanbul by members of the Organisation for Security and Cooperation in Europe, which includes the United States and Canada, during a call with U.S. Secretary of State Antony Blinken.

Lavrov said Blinken accepted the need to discuss the matter further whilst a U.S. account of the call focused on the need for Moscow to pull back.

"If President Putin truly does not intend war or regime change, the Secretary told



Foreign Minister Lavrov then this is the time to pull back troops and heavy weaponry and engage in a serious discussion," a senior State Department official told reporters, read more

# 'INSTRUMENT'

Putin had not spoken publicly about the Ukraine crisis since Dec. 23, leaving ambiguity about his personal position while diplomats from Russia and the West have been engaged in repeated rounds of talks. His remarks on Tuesday reflected a world view in which Russia needs to defend itself from an aggressive and hostile United States. Washington is not primarily concerned with Ukraine's security, but with containing Russia, Putin said.

"In this sense, Ukraine itself is just an instrument to achieve this goal," he said.

"This can be done in different ways, by drawing us into some kind of armed conflict and, with the help of their allies in Europe, forcing the introduction against us of those harsh sanctions they are talking about now in the U.S.'

Hungarian Prime Minister Viktor Orban, who has often sparred with Western European leaders over democracy in his own country, said he believed after his talks with Putin that there was room for a compromise.

"I got convinced today that the existing differences in positions can be bridged and it is possible to sign an agreement that would guarantee peace, guarantee Russia's security and is acceptable for NATO member states as Morawiecki, also visiting Kyiv, said well," Orban said.

# GUN TO UKRAINE'S HEAD

Western countries have rushed to show "Living close to a neighbour like solidarity with Ukraine. British Prime Russia, we have the feeling of Minister Boris Johnson met President Volodymyr Zelenskiy in Kyiv and accused Putin of holding a gun to Ukraine's head to demand changes to the security architecture in Europe.

"It is vital that Russia steps back and chooses a path of diplomacy," Johnson said. "And I believe that is still possible. We are keen to engage in dialogue, of course we are, but we have the sanctions ready, we're providing military support and we will also intensify our economic cooperation."

Johnson said any Russian invasion of Ukraine would lead to a military and humanitarian disaster.

"There are 200,000 men and women under arms in Ukraine, they will put up a very, very fierce and bloody resistance," he said. "I think that parents,

mothers in Russia should reflect on that fact and I hope very much that President Putin steps back from the path of conflict and that we engage in dialogue."

Polish Prime Minister Mateusz Poland would help Ukraine with gas and arms supplies, as well as humanitarian and economic aid. read more

living at the foot of a volcano," said Morawiecki.

Zelenskiy, who has repeatedly played down the prospect of an imminent invasion, signed a decree to boost his armed forces by 100,000 troops over three years. He urged lawmakers to stay calm and avoid panic.

The troop increase was "not because we will soon have a war ... but so that soon and in the future there will be peace in Ukraine," Zelenskiy said.





Southern News 美南新聞



美南微信

美南新聞





今日頭條



Tik Tok ID: Southern News Group



抖音



Instagram ID: **Southern News** 

星期三

# WEALEE'S GLOBAL NOTES

02/01/2022

# Spring Is Coming

This morning when I opened the front door, a bouquet of bright sunshine came in. It was a little warm in Texas. We felt that the springtime is coming.

Many immigrants came to this land from so far away. The sound of drums brought us back to our childhood memories. Over the last century, many people from around the world have settled down here and now call America their home.

Houston Mayor Sylvester Turner continues to recognize the great contributions of the Asian American people to our



country, especially when we are celebrating the Lunar

New Year, and his message is very clear.

Today public health experts are predicting that the worst is over for the Covid-19 pandemic and it is under control. We deeply appreciate all the hard work that they have done for all of us.

The warmth of the spring breeze shows that the flowers are about to bloom. It represents new vitality and strength.

We need to move forward bravely to welcome the Year of the Tiger.



₩ iTalk<mark>B</mark>B

Wea H. Lee

Wealee@scdaily.com

**Chairman of International District Houston Texas** 

Publisher Southern Daily Wea H. Lee

**Southern News Group Chairman / CEO** 

**Chairman of International Trade & Culture Center** Republic of Guiana Honorary consul at Houston Texas

















# **Editor's Choice**



The casket of NYPD officer Wilbert Mora, who was killed in the line of duty while responding to a domestic violence call, is carried for a wake service at St. Patrick's Cathedral in the Manhattan borough of New York City. REU-TERS/Brendan McDermid



Security Council on the situation between Russia and Ukraine, at the United Nations Headquarters in Manhattan. REUTERS/Andrew Kelly



A girl sits in front of a bakery in the crowd with Afghan women waiting to receive bread in Kabul, Afghanistan. REUTERS/ Ali Khara



Russian Ambassador to the United Nations Vasily Nebenzya attends a meeting of the U.N.



U.S. President Joe Biden and Vice President Kamala Harris host Senate Judiciary Committee Chairman Dick Durbin, a Democrat, and the committee's ranking Republican, Charles Grassley to discuss the upcoming U.S. Supreme Court vacancy from the Oval Office at the White House. REUTERS/Leah Millis



A girl in traditional costume stands amid lion dancers during a Chinese Lunar New Year, Year of the Tiger, cultural celebration in the Chinatown neighborhood of New York City. REUTERS/ Mike Segar



A person wearing personal protective equipment walks inside Beijing Capital International Airport ahead of the 2022 Winter Olympics in Beijing, China. REUTERS/Phil Noble 2022年2月2日



# The New Face Of The Final Frontier The Business Of Space



(Editor's Note: When Virgin CEO Richard Branson and his crew on the Virgin Galactica space airplane reached space last week 50 miles above earth, the achievement, while technologically monumental, was significant in heralding the inescapable commercialization of space and all that means and will become. Branson was upfront about his trip being a personal adventure while at the same time one by which he wanted to tell the public that now is the time to join him in space. But the even larger story is that Branson's ride into space marked the moment at which the dream became reality for an independent business owner, not by the hand of any government, to fly off into space and in just over two hours' time land safely back on earth. Branson's trip opened the door and now commercialization of space has begun./John T. Robbins)

#### Compiled And Edited By John T. Robbins, Southern Daily Editor

Richard Branson's achievement nothwithstanding, today there is reason to think that we may finally be reaching the first stages of a true space-for-space economy. SpaceX's recent achievements (in cooperation with NASA), as well as upcoming efforts by Boeing, Blue Origin, and Virgin Galactic to put people in space sustainably and at scale, mark the opening of a new chapter of spaceflight led by private firms. These firms have both the intention and capability to bring private citizens to space as passengers, tourists, and — eventually — settlers, opening the door for businesses to start meeting the demand those people create over the next several decades with an array of space-for-space goods and

Welcome to the (Commercial) Space Age In contrast to governments, the private sector is eager to put people in space to pursue their own personal interests, not the state's — and then supply the demand they create. This is the vision driving SpaceX, which in its first twenty years has entirely upended the

rocket launch industry, securing 60% of the global commercial launch market and building ever-larger spacecraft designed to ferry passengers not just to the International Space Station (ISS), but also to its own promised settlement on Mars.

Today, the space-for-space market is limited to supplying the people who are already in space: that is, the handful of astronauts employed by NASA and other government programs. While SpaceX has grand visions of supporting large numbers of private space travelers, their current space-forspace activities have all been in response to demand from government customers (i.e.,



# BUSINESS

But as decreasing launch costs enable companies like SpaceX to leverage economies of scale and put more people into space, growing private sector demand (that is, tourists and settlers, rather than government employees) could turn these proof-of-concept initiatives into a sustainable, large-scale industry.

This model — of selling to NASA with the hopes of eventually creating and expanding into a larger private market — is exemplified by SpaceX, but the company is by no means the only player taking this approach. For instance, while SpaceX is focused on space-for-space transportation, another key component of this burgeoning industry will be manufacturing.

Made In Space, Inc. has been at the forefront of manufacturing "in space, for space" since 2014, when it 3D-printed a wrench onboard the ISS. Today, the company is exploring other products, such as high-quality fiber-optic cable, that terrestrial customers may be willing to pay to have manufactured in zero-gravity. But the company also recently received a \$74 million contract to 3D-print large metal beams in space for use on NASA spacecraft, and future private sector spacecraft will certainly have similar manufacturing needs which Made In Space hopes to be well-positioned to fulfill. Just as SpaceX has begun by supplying NASA but hopes to eventually serve a much larger, private-sector market, Made In Space's current work with NASA could be the first step along a path towards supporting a variety of private-sector manufacturing applications for which the costs of manufacturing on earth and transporting into space would be prohibitive

Another major area of space-for-space investment is in building and operating space infrastructure such as habitats, laboratories, and factories. Axiom Space, a current leader in this field, recently announced that it would be flying the "first fully private commercial mission to space" in 2022 onboard SpaceX's Crew Dragon Capsule. Axiom was also awarded a contract for exclusive access to a module of the ISS, facilitating its plans to develop modules for commercial activity on the station (and eventually, beyond it).



ture is likely to spur investment in a wide array of complementary services to

This infrastruc-

supply the demand of the people living and working within it. For example, in February 2020, Maxar Technologies was awarded a \$142 million contract from NASA to develop a robotic construction tool that would be assembled in space for use on low-Earth orbit spacecraft Private sector spacecraft or settlements will no doubt have need for a variety of similar construction and repair tools. And of course, the private sector isn't just about industrial products. Creature comforts also promise to be an area of rapid growth, as companies endeavor to support the human side of life in the harsh environment of space. In 2015, for example, Argotec and Lavazza collaborated to build an espresso machine that could function in the zero-gravity environment of the ISS, delivering a bit of everyday luxury to the crew.

Visions of a space-for-space economy have been around since the dawn of the Space Age in the 1960s. Thus far, those hopes have gone largely unmet — but this moment is different. For the first time in history, the private sector's capital, risk tolerance, and profit motive are being channeled into putting people in space. If we seize this opportunity, we will look back on 2020 as the year when we started the truly transformational project of building an economy and a society in space, for space.

(Courtesy https://hbr.org) Related

**It Could Could Happen By 2023 Space Miners Want To Blow Up The Moon's Surface To Harvest Water** 



#### A rover descending from a Masten lunar lander.

We already use rockets to reach the moon, but soon we may use them to mine it for water. Three companies, including Lunar Outpost, Honeybee Robotics, and Masten Space Systems, are developing a novel system aimed at mining water ice from the moon with rockets, according to a blog post shared on Masten's official website. And it could happen in the year 2023.

#### A water ice-mining system could cover 12 moon craters per day

The moon's polar regions are thought to contain the most abundant deposits of water ice, especially in the shadowy bottom of larger craters. If future astronauts can harvest this precious material, we might have a shot at building a permanent human settlement on the moon, according to NASA authorities and space travel enthusiasts. More than keep astronauts alive, mining water ice from the lunar surface will enable us to break it down into hydrogen and oxygen, which are the primary ingredients for rocket fuel. In other

words water ice on the moon could also fuel spacecraft on their way into deep space like a cosmic pit stop.



To drive mining technology ward, NASA issued the "Break the Ice Lunar Challenge," which aims to provide

\$500,000 to the most enticing resource-harvesting concepts amid the first phase, which will end soon, the winners of which will be announced August 13. One of the first prize-hopefuls is the Masten-Lunar Outpost-Honeybee Robotics group, pushing forward its Rocket Mining System to use a rocket engine equipped on a 1,800-lb (818kg) rover. Once the rover moves to an area rich in water ice, the engine will activate, firing lunar gravel and dirt into a low-pressure device capable of sifting the ice from the moon rocks. "This system is projected to mine up to 12 craters per day and produce 100 kg (220 lbs) of ice per crater," said representatives of Masten in the blog post.

Multiple nations aim to settle the moon All water ice retrieved from the moon can also fuel rocket engines, enabling the system to function for more than five years. If this concept surpasses all competitors, the rocket mining system will probably get there via a Masten lunar lander. Masten's first mission to the moon's surface will employ its XL-1 lander, and is slated to launch in 2023 atop SpaceX's Falcon 9 rocket. If all goes well, this launch will also lift NASA experiments. in addition to several commercial payloads, to the south polar region of the moon.

Lunar Outpost would design and build the rover for the Rocket Mining System, with Honeybee Robotics employing its PlanetVac technology to extract and move the



#### Water mining on the moon. In short, these

are very interesting times for the exploration of space. In

addition to NASA and related commercial projects, China and Russia plan to jointly build a permanent settlement on the moon, with the former also recently unveiling longterm plans to do the same on Mars. But we wouldn't call this a space race, not necessarily. There's more to be learned from a spirit of friendly collaboration and mutual support than ever before, in the coming decades. (Courtesy https://interestingengineering. com/)

(Article continues below)



(Article continues from above) The New Face Of The Final Frontier

# The Business Of Space

Compiled And Edited By John T. Robbins, Southern Daily Editor

# The Five Industries That Will Be First To Do Business In Space



Companies around the world - in transportation, exploration, energy, construction or hospitality - are all looking upwards for the next growth opportunity. Space is quickly becoming a place where the industries that power our global economy will conduct business. What do we call an economic area like this, that is not limited to a single planet, and no longer has physical boundaries? We can't call it an industry, when private industrial groups can generate revenue and profit not only from the Earth but from near-Earth asteroids (NEAs), the Moon and Mars and beyond. It is simply a medium in which humanity conducts commerce.

Following are the industry sectors that will be the first to take advantage of our expanded economic sphere, and some of the specific opportunities for

# Energy

Valued at over \$8.4 trillion and growing at a 4.1% compound annual growth rate, energy is the largest industry on Earth. Humans are prolific energy consumers, and soon there will be more humans in space.

Jeff Bezos, Founder and CEO of Amazon, anticipates "millions of people living and working in space" in the coming decades. Bezos is so confident of this outcome that he is investing more than \$1 billion per year into his space transportation firm, Blue Origin. An in-space population of this magnitude will require enormous amounts of energy to live, work, and transit.



This energy will come from solar power, is more effective when gathered in

space due to the lack of a filtering atmosphere; and chemical rockets, which will be the primary transportation mechanism for the foreseeable future.

The most efficient chemical rocket propellants are composed of cryogenic liquid oxygen combined with liquid hydrogen or methane. Initially, the propellant needed to fuel the space economy will be launched from Earth, as both the United Launch Alliance (a joint-venture of Lockheed Martin and Boeing) and SpaceX have proposed to do in the near future. However, there is a much more attractive way to source the propellants needed to support a sustained human presence in space:

# Mining

The global mining industry has tumbled in recent years from a market value of more than \$1.6 trillion in 2010, to \$714 billion in 2016, but this may change quickly once the "global" definition of mining is transformed by the emerging space resource industry.

Space resources can be extracted from celestial bodies, most notably asteroids and the Moon. Goldman Sachs released a report earlier this year that declared asteroid mining is more realistic than perceived, with costs "comparable to traditional mines". The Goldman report also noted that "while the psychological barrier to mining asteroids is high, the actual financial and technological barriers are far lower'

The Government of Luxembourg believes so strongly in this emerging industry it recently created the \$227 million Space Resoruces ini-



Its aim is to contribute to the peaceful exploration and sustainable utilization of

space resources for the benefit of humankind. Space mining activities will initially focus on water and water-derived propellants to enable in-space infrastructure. Once this propellant is readily available, companies will begin sourcing structural metals for construction projects and eventually precious metals needed for inspace manufacturing or possibly for return to

# **Transportation**

The most important resource that will be mined in space is water.

Water is critical for all life-support functions in space: sustenance, hygiene, and food production. Water can serve as an effective shield from the dangerous radiation present in space. Water is also the single most important feedstock for in-space refineries, which will produce rocket propellants for sale to transportation providers. Making propellants available beyond Earth's gravitational influence will lead to the creation of the first in-space superhighway - a series of fuel depots placed in strategic locations throughout the solar system. Imagine the growth potential of the energy, mining, and refining industries once they are freed from the constraints of an economy that is limited only to Earth. The in-space transportation and logistics firms who will consume these products are already well established and are headed by titans of industry:



Jeff Bezos (Blue Origin), Elon Musk (SpaceX), Richard Branson (Virgin

Galactic), and Tory Bruno (United Launch Alliance). The door is now open to in-space mining firms like Planetary Resources (backed by industrial giant Bechtel and the Government of Luxembourg) to capture this increasingly important market by providing water and water-based propellants to the space transportation

# Construction

Today, the global construction industry competes with the energy industry for the title of the world's largest industry, and this rivalry will

systems will be deployed before the end of the decade. These robotic spacecraft will be capable of assembling large structures in orbit and repairing or refueling existing satellites. When combined with zero-gravity additive manufacturing techniques, this enables construction systems which can "print" and assemble massive structures in the medium of space.



COMMUNITY

The future of construction in space look nothing like it does on Earth,

but it will be equally valuable because the techniques and service offerings will apply across the entire in-space value chain. A propellant refinery can be assembled on orbit. Asteroid mines can be repaired autonomously. Solar power plants can be massively scaled and upgraded to meet the requirements of almost any

# Hospitality and real estate

Humans can only live, work and play in space if they have shelter from the harsh environment of space. Today, the International Space Station (ISS) has had a sustained human presence for over 10 years, but this too will soon change.

Numerous commercial space station companies, including one created by billionaire hotel-chain-founder Robert Bigelow, are competing for lucrative contracts that range from supporting sovereign astronauts and high-networth tourists, to leasing space-in-space for orbital manufacturing and research and development programs. This new industry is anticipated to generate \$37 billion in the next decade

Space habitats will be launched from Earth initially, but as the resource supply chain expands and metals from asteroids and the Moon become available, this sector will also come to rely on resources sourced from space.



combine high-quality metallic feedstocks with robotic orbital assembly fleets as we gain the

Construction firms will

ability to create orbital megastructures: hotels, factories, and permanent settlements that are no longer limited by size. The first cities in space will become possible as markets for real-estate on orbit emerge. Space will become affordable and profitable for developers.

tiative to establish Luxembourg as a European continue in space. The first orbital construction Our global economy is limited by its very name. When we realize that Earth's economy is only the beginning, our concept of growth changes exponentially. For industrial firms who have the foresight to view space not as a stand-alone industry but as the next medium to conduct their business, the sky is not the limit. The only limitations are the ones we put on ourselves. (Courtesy https://www.weforum.org)

# **Space Coverage Gets Serious Attention**

While public sentiment on whether billionaires should be leading the way in space may be mixed, public interest around the

race between Branson and Bezos has exploded. Why it matters: The billionaire space race is sparking widespread interest in spaceflight that could ultimately translate into future customers for their companies.

By the numbers: Not even halfway through July, mentions of the term "space race" in U.S. articles have ballooned, according to new data from Signal AI provided to Axios - more than tripling the amount of mentions last July.

•When it comes to name recognition, Bezos' Blue Origin has received a lot more attention this year than its rival — Branson's Virgin Galactic.

•Since July 2020, Virgin Galactic has received about a third of the number of total social media interactions (325,663) as Blue Origin (1,085,377), per NewsWhip.

•Elon Musk's SpaceX clobbers both, with nearly 3.5 million total social media interactions for the year.



The big picture: Space coverage historically been mostly in a

thing that typically only broke through to the mainstream with big launches, accidents or an-

But today, many news companies have hired designated space reporters, as private spaceflight takes off.

For space-specific news outlets, like Seeker, the space race has been a boon for traffic. A spokesperson tells the media that Seeker has seen twice the amount of views and minutes watched on its video content compared to the six months prior. (Courtesy axios.com)