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MEDIA SUMMARY

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HYPERSONIC WEAPONS DEVELOPMENT IN CHINA, RUSSIA AND THE UNITED STATES: IMPLICATIONS FOR AMERICAN SECURITY POLICY

Larry M. Wortzel | Association Of The United States Army | March 23, 2022

According to the Financial Times of 16 October 2021, "China tested a nuclear-capable hypersonic missile in August that circled the globe before speeding towards its target, demonstrating an advanced space capability that caught US intelligence by surprise." The remarkable thing about the test is that the warhead was launched into orbit, orbited Earth and reentered the atmosphere, approaching its target at hypersonic speed. Such a weapon would be capable of carrying a nuclear warhead. The United States has established defenses against intercontinental ballistic missiles (ICBMs) in Alaska, but the method used to attack the target by the People's Republic of China (PRC) missile would be capable of evading fixed U.S. defenses by avoiding the expected polar ballistic trajectory that the U.S. defenses are designed to intercept. This test by China has direct influence on the Army because the U.S. Army Space and Missile Defense Command (SMDC) is responsible for detecting strategic attacks and protecting the U.S. homeland. SMDC defense systems are deployed to intercept ballistic missile warheads from only one direction, using a polar, or arctic, approach. Another SMDC mission is to enhance deterrence and detection of strategic attacks.

Read the full article here.

WHAT'S THE POINT? AMERICANS WANT PUBLIC INVESTMENTS IN R&D TO COMPETE WITH CHINA

Ruy Teixeira and John Halpin | Center for American Progress Action | March 28, 2022

Congress has passed two bills to boost U.S. innovation and competitiveness: The Senate passed the United States Innovation and Competition Act (USICA) on a bipartisan basis, while the House of Representatives passed the America Creating Opportunities for Manufacturing, Pre-Eminence in Technology, and Economic Strength Act (America COMPETES Act) on a party-line vote. The two bills are now headed for a Senate-House conference to produce a unified bill that both chambers of Congress can vote on. The two pieces of legislation have much in common. A National Law Review article comparing the bills notes: "Both bills provide more than $50 billion in immediate funding for semiconductor production and research. Both bills also authorize more than $200 billion in future efforts to develop key technology areas. And the bills include additional proposals to address supply chain issues and promote fair trade." There are also some differences, and the National Law Review article summarizes them well.

Read the full article here.

BIDEN'S 2023 BUDGET CALLS FOR BIG BOOST TO PENTAGON R&D FUNDING

Jon Harper | FedScoop | March 28, 2022

President Joe Biden's fiscal 2023 budget proposal, released Monday, would increase the Department of Defense's research and development funding to an all-time high, as the U.S. military races with China to develop next-generation capabilities. The White House is asking for $773 billion for the Pentagon in the next fiscal year, $130.1 billion of which would go toward research, development, test and evaluation accounts — the highest-ever level of RDT&E spending in DOD history, according to the Pentagon. That would be a 9.5% boost in RDT&E spending over the amount enacted for 2022. "This budget reflects our strategy of directing resources to critical investments that allow us to maintain a combat credible force … [and] marshal America's next generation of technology," Secretary of Defense Lloyd Austin said in a statement. The RDT&E request includes: $17.6 billion for space-based systems; $5.2 for shipbuilding and maritime systems; $10.4 billion for missiles and munitions; $9 billion for missile defense programs; $2.9 billion for ground systems; $5.3 billion for command, control, communications, computers and intelligence (C4I) capabilities; $16.8 billion for aircraft and related systems; $46.4 billion for mission support; and $16.5 billion for science and technology.

Read the full article here.

REPUBLICAN SENATORS PUSH DOJ TO REINSTATE CHINA INITIATIVE AIMED AT COUNTERING CHINESE ESPIONAGE

Chris Galford | Homeland Preparedness News | March 28, 2022

Criticizing the U.S. Department of Justice's (DOJ) decision to end the national program started under the Trump administration known as the China Initiative, eight Republican senators called on the department last week to reinstate moves to counter Chinese espionage and other activities. "If DOJ mishandled particular cases, pursued cases without sufficient evidence, or otherwise acted in a manner that raised legitimate concerns about racial bias or other improprieties, those problems should be addressed on a case-by-case basis," the senators wrote, dismissing part of the justification the DOJ provided for disbanding the initiative in the first place. "The wholesale abandonment of a national security initiative because of unproven allegations of racial profiling should not happen." This, they argued, has left the U.S. economy and national security vulnerable to espionage and other actions from the Chinese Communist Party (CCP).

Read the full article here.

BEIJING LARGEST NATIONAL SECURITY RISK IN UNIVERSITY RESEARCH SECTOR: AUSSIE SENATE REPORT

Rebecca Zhu | The Epoch Times | March 26, 2022

Australia's taxpayer-funded university research sector has long been targeted by authoritarian regimes resulting in the transfer of sensitive research, with a new government report specifically identifying the Chinese regime as the largest, but not the only, culprit of foreign interference. In the report, the Parliamentary Joint Committee on Intelligence and Security (PJCIS) found several instances where staff and students were subject to sustained campaigns of intimidation, harassment, and censorship when they were outspoken on campus. "This resulted in the transfer of sensitive research to authoritarian regimes and their militaries and threats to the safety of domestic and international students," Committee Chair Sen. James Paterson said. The committee presented 27 unanimous and bipartisan recommendations to address the threats posed by foreign interference on the nation's critical research institutions.

Read the full article here.

QUANTUM TELECOMMUNICATIONS BREAKTHROUGH: NEW WORLD RECORD FOR QUBIT STORAGE

University of Geneva | SciTechDaily | March 25, 2022

Developed during the 20th century, quantum physics has enabled scientists to describe the behavior of atoms and particles as well as certain properties of electromagnetic radiation. By breaking with classical physics, these theories generated a real revolution and introduced notions without equivalent in the macroscopic world such as superposition, which describes the possibility for a particle to be in several places at once, or entanglement, which describes the ability of two particles to affect each other instantaneously even at a distance ('spooky action at a distance'). Quantum theories are now at the heart of much research in cryptography, a discipline that brings together techniques for encoding a message. Quantum theories make it possible to guarantee perfect authenticity and confidentiality for information (a qubit) when it is transmitted between two interlocutors by a particle of light (a photon) within an optical fiber.

Read the full article here.

FCC ADDS KASPERSKY AND CHINESE TELECOM FIRMS TO NATIONAL SECURITY THREAT LIST

Ravie Lakshmanan | The Hacker News | March 26, 2022

The U.S. Federal Communications Commission (FCC) on Friday moved to add Russian cybersecurity company Kaspersky Lab to the "Covered List" of companies that pose an "unacceptable risk to the national security" of the country. The development marks the first time a Russian entity has been added to the list that's been otherwise dominated by Chinese telecommunications firms. Also added alongside Kaspersky were China Telecom (Americas) Corp and China Mobile International USA. The block list includes information security products, solutions, and services supplied, directly or indirectly, by the company or any of its predecessors, successors, parents, subsidiaries, or affiliates. The FCC said the decision was made pursuant to a Binding Operational Directive (BOD) issued by the Department of Homeland Security on September 11, 2017 that barred federal agencies from using Kaspersky-branded products in their information systems.

Read the full article here.

DEVELOPER: CHINESE DRONE MANUFACTURER DJI HAS LIMITED THE USE OF AEROSCOPE TECHNOLOGY FOR THE UKRAINIAN ARMY, BUT NOT FOR THE RUSSIAN ONE

Aroged | March 17, 2022

According to the latest reports from Ukraine, Chinese drone manufacturer DJI Global has limited the capabilities of its Aeroscope technology to the Ukrainian army, giving the Russian occupiers a significant advantage in aerial reconnaissance. About it informed on Twitter software architect Vladimir Shimansky. He noted that this could be a technical problem. But such an option is unlikely, as there are reports that DJI will limit or stop the supply of its drones to Ukraine. Therefore, Shimansky did not recommend that Ukrainian DJI owners update any software or firmware, but suggested disabling geolocation and registering their drones only outside of Ukraine. "The Russians are using… this technology to track the positions of drone operators in order to target their artillery/rocket fire. In other words, the Russians are using DJI technology to kill Ukrainian drone operators. According to the latest reports from the Ukrainian army, the Aeroscope technology is effectively disabled for Ukrainian operators.

Read the full article here.

NEW EXPORT CONTROLS DISTINGUISH BETWEEN EXPORTS TO RUSSIA AND DEEMED EXPORTS TO RUSSIAN NATIONALS

Christine Abely | Just Security | March 9, 2022

The broad set of U.S. export controls announced in the aftermath of Russia's latest aggression in Ukraine make a key distinction between the treatment of exports to Russia and the release of information to Russian nationals in the United States. This differentiation between direct exports and "deemed exports" is not always made in U.S. export control provisions; its effect here exempts many instances of deemed exports from the broad new export measures. Thus, Russian foreign nationals who are employees of companies in the United States can continue to access information in the United States that is newly controlled for actual export to Russia. The Bureau of Industry and Security (BIS) in the U.S. Department of Commerce is responsible for the Export Administration Regulations (EAR), which govern certain activities including direct exports from the United States to foreign countries of items, equipment, materials, software, and technology described on the Commerce Control List ("CCL") by Export Control Classification Numbers (ECCNs), or contained in a catch-all category of EAR99.

Read the full article here.

INQUIRY INTO NATIONAL SECURITY RISKS AFFECTING THE AUSTRALIAN HIGHER EDUCATION AND RESEARCH SECTOR

Parliament of Australia | March 2022

On 28 October 2020 the then Home Affairs Minister, The Hon Peter Dutton MP, referred a general inquiry to the Parliamentary Joint Committee on Intelligence and Security (the PJCIS) pursuant to subparagraph 29(1)(b)(i) of the Intelligence Services Act 2001 (Cth) (the IS Act). The reference was to inquire and report on national security risks affecting the higher education and research sector (the sector). The specific terms of reference for the inquiry are outlined in the preliminary pages of this report, however the inquiry has evolved as the committee has undertaken evidence-gathering and consideration of the issues involved. The sector is defined in the terms of reference and includes those entities engaged in tertiary teaching, research, commercialisation of research, and other related bodies including grants, coordination and institutional entities. It is deliberately broad in order to fully encompass the sector and its related entities. The then Chair of the PJCIS, Mr Andrew Hastie MP, announced the commencement of the inquiry by media release on 4 November 2020 and invited written submissions from academia, government agencies and other interested stakeholders.

Read the full article here.

UNIVERSITY STUDENTS AND STAFF FACE INCREASING THREATS, FOREIGN INTERFERENCE INQUIRY FINDS

Tory Shepherd | The Guardian | March 25, 2022

Universities face escalating threats to students and to national security from hostile forces, a report into foreign interference has warned. A parliamentary joint committee on intelligence and security inquiry found examples of attempts to threaten and intimidate staff and students, espionage, and intellectual property theft through collaborations with foreign institutions. Liberal senator James Paterson, committee chair, said there had been a "sustained campaign of intimidation, harassment, censorship and intelligence gathering" that has led to "the transfer of sensitive research to military regimes". The report, released on Friday, specifically singled out Chinese government-funded Confucius Institutes, a $10m deal between Monash University and a Chinese company linked to industrial espionage, and talent recruitment drives that see Australian researchers work with universities overseas.

Read the full article here.

CHINA'S RAPID R&D REVOLUTION IS LEAVING THE US IN ITS WAKE

Dave Makichuk | Asia Financial | March 23, 2022

Suzhou, a city west of Shanghai, is known for its canals, bridges and classical gardens. It is also home to the world's largest nanotech industrial zone, called 'Nanopolis.' This futuristic city houses several private multinationals and new Chinese startups across different fields of nanotechnology and nanoscience. Needless to say, China leads the world's nanotech startups, according to a report in Small Wars Journal. From cloning to cancer research, from sea to space exploration, China is using nanoscience and nanotechnology innovation to drive some of the world's biggest breakthroughs, which is raising concerns in many other competing countries. In fact, the situation has become so alarming, the US National Science Board's warned in a recent report – State of US Science and Engineering 2022 – that China is pulling ahead of the United States when it comes to key indicators of science and engineering prowess.

Read the full article here.

TAKING THE LOW ROAD: CHINA'S INFLUENCE IN AUSTRALIAN STATES AND TERRITORIES

John Fitzgerald | Australian Strategic Policy Institute | February 15, 2022

In November 2020 a Chinese official passed a list of 14 grievances to Australian journalists, highlighting what Beijing regarded as missteps in the Australian government's relations with China. A striking feature of the list is that many concern Australian Government attempts to limit Chinese engagement with the states and territories, or state-based institutions such as universities. Why did state and territory relations with China concern Canberra? This study explores the changing nature of China's engagement with Australian states and territories, local governments, city councils, universities, research organisations and non-government organisations, all nested in Australian civil society. What emerges is the astonishing breadth and depth of China's engagement, much of it the welcome outcome of Australia's economic and people-to-people engagement with China over many decades.

Read the full article here.

CHINA'S MODEL OF SCIENCE

China Aerospace Studies Institute | February 7, 2022

On 20 January 2021 newly inaugurated President Biden sent a letter to his science advisor, geneticist Eric Lander, posing five essential questions about how to ensure America's leadership in science and technology for the next 75 years. The letter deliberately invoked a similar letter sent by President Franklin Delano Roosevelt in November 1944 to his science advisor, Dr. Vannevar Bush. Though World War II was far from over, Roosevelt was already starting to look to the future to ensure that the rapid scientific progress made during the war was maintained and directed to address pressing issues at home when peace was achieved. While Roosevelt would not live to see it, the resulting report titled Science—the Endless Frontier, published 75 years before Biden's letter, would prove to have a lasting impact on American science.

Read the full article here.

USEFUL RESOURCES

THE RISE OF INTELLECTUAL PROPERTY PROTECTION IN THE AMERICAN UNIVERSITY

Lita Nelsen | Science | March 6, 1998

Intellectual property scarcely existed in the vocabularies of U.S. academic researchers and administrators even 15 years ago. Now it is an ever-present part of discussions on research policies and directions. This new importance of intellectual property in academia reflects a changing view of the relationships of research universities to the surrounding society. Until recently, research at universities has been relatively isolated from demands of economic utility, and education of graduate students has emphasized a career in academic research as the final goal. The university's contentment with this relative isolation was affected by two major events of the late 1980s and early 1990s: the fall of the Berlin wall, leading to an expected decrease in military funding of research, and the emphasis on balancing the federal budget—both producing a fear of a decline in federal funding of university research.

Read the full article here.

FREQUENTLY ASKED QUESTIONS: IP POLICIES FOR UNIVERSITIES AND RESEARCH INSTITUTIONS

World Intellectual Property Organization

Universities and public research institutions (PRIs) are the factories of the knowledge economy. Intellectual property (IP) adds another mechanism for universities to disseminate the knowledge that they generate and to have that knowledge used in the economic sector. We provide advice, support and resources to help universities and PRIs around the world tap into their IP and continue fueling the innovation that drives society forward.

Read the full article here.

INTELLECTUAL PROPERTY AND COPYRIGHT

American Association of University Professors

Intellectual property (IP) at colleges and universities refers most importantly to the products of faculty, staff, and student research and scholarship. IP falls into two groups—work covered by patent law and work covered by copyright law. Both categories have undergone significant change over the last generation. In response, university policies have either evolved or been radically revised. This AAUP IP web section has been assembled to help you with the information you need to participate in informed discussion and organize for better campus policies.

Read the full article here.