

Chapter 1 : North Korean Ballistic Missile Program

BOTTOM LINES. Nuclear weapons have become a core element of North Korea's national security strategy and it is unlikely to give them up. A future North Korean nuclear weapons force is likely to remain small and configured largely for maintaining a survivable deterrent capability.

Definition[edit] A number of definitions of cyber warfare have been proposed, with no single definition being widely adopted internationally. At the most basic level, cyber attacks can be used to support traditional warfare. For example, tampering with the operation of air defences via cyber means in order to facilitate an air attack. Espionage[edit] Traditional espionage is not an act of war, nor is cyber-espionage, [17] and both are generally assumed to be ongoing between major powers. Despite this assumption, some incidents can cause serious tensions between nations, and are often described as "attacks". Massive spying by the US on many countries, revealed by Edward Snowden. Compromise of military systems, such as C4ISTAR components that are responsible for orders and communications could lead to their interception or malicious replacement. Power, water, fuel, communications, and transportation infrastructure all may be vulnerable to disruption. According to Clarke, the civilian realm is also at risk, noting that the security breaches have already gone beyond stolen credit card numbers, and that potential targets can also include the electric power grid, trains, or the stock market. It is considered "the first attack on critical industrial infrastructure that sits at the foundation of modern economies," notes The New York Times. For the first time, it became clear that not only could cyber weapons be defensive but they could be offensive. The large decentralization and scale of cyberspace makes it extremely difficult to direct from a policy perspective. Non-state actors can play as large a part in the cyberwar space as state actors, which leads to dangerous, sometimes disastrous, consequences. Small groups of highly skilled malware developers are able to as effectively impact global politics and cyber warfare as large governmental agencies. A major aspect of this ability lies in the willingness of these groups to share their exploits and developments on the web as a form of arms proliferation. This allows lesser hackers to become more proficient in creating the large scale attacks that once only a small handful were skillful enough to manage. In addition, thriving black markets for these kinds of cyber weapons are buying and selling these cyber capabilities to the highest bidder without regard for consequences. Denial-of-service attack In computing, a denial-of-service attack DoS attack or distributed denial-of-service attack DDoS attack is an attempt to make a machine or network resource unavailable to its intended users. Perpetrators of DoS attacks typically target sites or services hosted on high-profile web servers such as banks, credit card payment gateways, and even root nameservers. DoS attacks may not be limited to computer-based methods, as strategic physical attacks against infrastructure can be just as devastating. For example, cutting undersea communication cables may severely cripple some regions and countries with regards to their information warfare ability. Electrical power grid[edit] The federal government of the United States admits that the electric power grid is susceptible to cyberwarfare. The federal government is also working to ensure that security is built in as the next generation of "smart grid" networks are developed. On 23 December , what is believed to be a first known successful cyber attack on a power grid took place in Ukraine leading to temporary blackouts. Propaganda[edit] Cyber propaganda is an effort to control information in whatever form it takes, and influence public opinion. In , Sir Nicholas Carter, Chief of the General Staff of the British Army stated that this kind of attack from actors such as Russia "is a form of system warfare that seeks to de-legitimise the political and social system on which our military strength is based". The internet is a phenomenal means of communication. People can get their message across to a huge audience, and with this opens a window for evil. Terrorist organizations can use this medium to brainwash people. It has been suggested that restricted media coverage of terrorist attacks would in turn decrease the number of terrorist attacks that occur afterwards Cowen If this is the case, an interesting perspective to look for in the data would be the ties that connect the media, propaganda, and the communicative messages that are being conveyed. Military[edit] In the U. Alexander , first head of USCYBERCOM , told the Senate Armed Services Committee that computer network warfare is evolving so rapidly that there is a "mismatch between our

technical capabilities to conduct operations and the governing laws and policies. Cyber Command is the newest global combatant and its sole mission is cyberspace, outside the traditional battlefields of land, sea, air and space. In , Russia began a cyber attack on the Georgian government website, which was carried out along with Georgian military operations in South Ossetia. All four branches of the United States military actively recruit for cyber warfare positions. Electrical grids , financial networks, and telecommunication systems are also deemed vulnerable, especially due to current trends in computerization and automation. Anonymous and other hacktivist groups are often portrayed in the media as cyber-terrorists, wreaking havoc by hacking websites, posting sensitive information about their victims, and threatening further attacks if their demands are not met. However, hacktivism is more than that. They are politically motivated to change the world, through the use of fundamentalism. Groups like Anonymous have divided opinion with their methods. Cyber-arms industry and Market for zero-day exploits Computer hacking represents a modern threat in ongoing global conflicts and industrial espionage and as such is presumed to widely occur. Non-profit research[edit] But not all examinations with the issue of cyberwarfare are achieving profit or personal gain. There are still institutes and companies like the University of Cincinnati or the Kaspersky Security Lab which are trying to increase the sensibility of this topic by researching and publishing of new security threats. By region[edit] Approximately countries have been developing ways to use the Internet as a weapon and target financial markets, government computer systems and utilities.

Chapter 2 : The North Korean Ballistic Missile Program

"In this monograph, Dr. Daniel Pinkston examines North Korea's ballistic missile program in depth, its national strategy and motivations, as well as its accompanying proliferation activities. His analysis is a contribution to the Strategic Studies Institute's 'Demystifying North Korea' series.

Jun Over the course of the last week or so, several events in North Korea have occurred which shed light on the nature of the regime and thus its role in the strategic environment. Alternatively, the DPRK is seen as a totalitarian monolith. However, there is more to the state than this. As is more fully discussed in David C. In a dictatorship, constitutional amendments are little more than publicity stunts, since the dictator can by definition do as he pleases. This means that negotiations with dictatorships, regardless of any applicable constitutional provisions are one-level games. This is of course one of the reasons that they are popular as allies in difficult regions: Democratic and bureaucratic states, on the other hand, have to play the same game on two levels: That is, in addition to pleasing the negotiating partner, the negotiator must not offend the constituents at home. Such two-level games cause obvious difficulties, but also benefits. After all, the negotiator can fall back on the inability to garner public support at home true or not as a reason to reject a proposal he dislikes, increasing his leverage in the negotiations. This was not intended to be heard at home, but to convey a firmness in present negotiations that was out of his control. Medvedev cannot expect a result that Obama cannot produce. Similarly, in an ideological state with competing factions, such constitutional provisions can become significant roadblocks to negotiation. Just as a US negotiator would face certain reprimand for attempting to negotiate away 2nd Amendment rights, a North Korean negotiator would now be in severe trouble if he committed the constitutional crime of agreeing to give up the nukes. The DPRK has thus created significant leverage in nuclear negotiations by constraining their negotiators. Interestingly, the sub-national actors are not the only ones that North Korea must please or avoid offending too badly. North Korea is heavily dependent on China for aid and international support. China is therefor another constituent whose views must be taken into consideration in negotiations with the West. This adds a second dimension to the two-level game now a three-level game? This will increase the pressure on the North dramatically, forcing a change of policy. Posted by Paul W.

Chapter 3 : Chicago Tribune - We are currently unavailable in your region

North Korea's leadership with a heightened sense of insecurity; (3) North Korea's rulersâ€•or at least some of themâ€•appear to be acutely aware of the reform dilemma they face.

S laws and being transparent to the public. The humanitarian and development research includes research of relief and sustainable development, public health, and education in humanitarian crisis regions in DPRK, Asia and Europe. The public policy research includes but is not limited to: Other programs meeting the mission of the ISR are considered. Major Activities[edit] The ISR has been dedicated to improving quality of life of people of DPRK by supporting steady improvement of the health and education system in DPRK, on humanitarian ground, by providing innovative support and humanitarian aid, hosting public forums on reconciliation, and carrying out interdisciplinary research projects. Reports have been periodically documented in the UN relief web. Project Reconciliation for the Disabled is an ISR project launched for the purpose of sending wheelchairs and crutches and manufacturing prosthetic limbs for the disabled children and adults of DPRK. The institute appealed in the fall of to send such medical equipment to the disabled of DPRK. In response to this appeal, the America Wheat Mission, Inc. The ISR has sent by today over wheel chairs and 12, crutches and helped custom-manufacture over prosthetic limbs in country for the disabled children and adults, including their rehabilitation. Research and Studies[edit] ISR has presented since a number of briefings of DPR Korea issues and policy options to governmental and nongovernmental institutions, UN agencies, the NGO community, and international gatherings of stakeholders to help improve engagement between DPRK and the international community. ISR also conducts interdisciplinary research on various topics of public interest, such as research on separated families [5] [6] and forecasting the results of American and Korean elections â€” presidential and midterm elections. Asaph Young Chun reported that, according to a survey research conducted for a year, the number of ethnic Korean-American citizens who have the immediate family members remaining in the DPRK is estimated over , He noted, "I wish that this data may be used to inform the Congress and help pass a bill to support the right of separated families to meeting their family in DPRK. US Election Forecasting Studies: The ISR has accurately forecasted every presidential election since and the results of each midterm election. The actual result was a 51 to 48 win for President Bush. The ISR has also successfully foreseen a Democrat win of the majority in both houses in the midterms [10] [11] [12] [13] and is the only organization that accurately predicted a 51 to 49 majority win for the Democratic Party in the Senate in The forum featuring influential senior governmental and non-governmental policymakers is the meeting place of all concerned about Korean issues, encouraging frank discussions on Korea policy options. Computer Education for North Korean Teens has been gradually implemented after the ISR agreed with DPRK in to provide computer education to teens in a joint middle and high school on the humanitarian ground. Under the Agreed Framework, the DPRK agreed to "freeze" and eventually dismantle its production reactors in return for two proliferation resistant commercial nuclear reactors of the light water type LWR and , metric tonsof heavy fuel oil each year, until the first LWR unit goes into operation. Mulligan, director of Project Operations discussed in his paper presented at the 7th Washington North Korea Forum hosted by the ISR, "If you spent more than a few hours in the DPRK, you are left with little doubt that its electrical power system is in need of major rehabilitation! Power blackouts are frequent, often leaving you sitting with your DPRK counterparts in a darkened meeting room. Power lines are often drooping near the ground or have fallen down completely. Much of the sub-station equipment pre-dates WWII. On January 9, , it was announced that the project was over and the workers should be returning to their home countries. The conference promoted scientific collaboration between North and South Korean computer scientists, encouraging scientists from a divided nation to gather together for a common cause of peaceful use of science. Park demonstrated that non-governmental organizations and scientists across North and South Korea can cooperate and work together in the spirit of science diplomacy. These interns make contributions to international relief and development programs ISR is undertaking in North Korea in close consultation with the U. The goal of the ISR Global Internship Program is to help develop capable emerging leaders and researchers serving reconciliation in

conflict regions, public health, innovative education, foreign policy, and international relief and development fit for the Reconciliation Vision. As an integral part of the ISR programs, GRIP interns are offered with opportunities which they can use and enhance their talents by working closely with international experts in the field. A number of internship programs are online based so overseas interns can have ample opportunities to assist and contribute to innovative ISR programs of policy research and international relief and development. ISR interns locally available in Washington DC are offered with hands-on program experience of attending policy meetings and assisting with major events organized by ISR. Profiled below are examples of duties performed by ISR interns. Support education and health projects in DPRK: Conducting research on establishing a model computer lab in DPR Korea, implementing a conversational English program, and research on renovating a medical lab for the disabled. Collaborate on research projects where interns can use their skills in writing, researching, website developing, database management, computer graphics.

Chapter 4 : North Korea's Nuclear Weapons: Future Strategy and Doctrine | Terence Roehrig - calendrierd

If one is to assess North Korean motivations for building a nuclear weaponization program, and the platform to carry it (the KN missile), it is probably important to first.

By Terence Roehrig the announcement to restart operations at Yongbyon, North Korea may be able to produce one additional This policy brief is based on a chapter published in warhead per year. In , indications of a second Toshi Yoshihara and James Holmes eds. Speculation was test on 12 February with a yield that most rife that the February test would use HEU but this was estimate was around 6 to 10 kilotons. With with medium-range Nodong missiles with May sufficient range to hit Japan. Reports have surfaced accurate to use for a first strike that seeks to disarm an of other longer range missiles including the Musudan adversary through a counterforce strategy. Instead, intermediate range missile and the longer range KN- Pyongyang will likely opt for a countervalue strategy Both are mounted on mobile launchers but are that targets South Korean or Japanese cities along not yet operational. Work continues on a long-range with U. A key to improve its long-range ballistic missiles, the U. If North Korea chose will be low. To address this vulnerability, North If using HEU, the warhead is easier to miniaturize Korea has two likely options for ensuring survivability: DPRK technicians and moving road-mobile missiles around on a road will also need to develop guidance systems and net making them more difficult to target. North Korea has developed some of this of a missile launch facility in that is 40-50 km technology for the Nodong but longer range missiles from the Chinese border. South Korea or the United are a greater challenge. States might hesitate striking this site given the close proximity to China. Given its rhetoric and continued Lastly, if North Korea has any doubts about the testing of both nuclear weapons and ballistic missiles, survivability of its nuclear forces, it may adopt a Pyongyang will likely go beyond its current capability launch-on-warning LOW posture. A plethora of sanctions have also slowed progresses. These 08 is likely to be a solid-fuel missile making it much challenges will seriously constrain the scope of the easier to launch on short notice. If only a limited conventional strike nuclear weapons program, there are several serious and North Korea responded with nuclear weapons, implications that could result. First, North Korea will this would be an escalation Seoul and Washington have a nuclear force that is too small and insufficiently would not tolerate leading to the end of the DPRK For more from the Project on Managing the Atom, please visit <http://> If an attack increasingly unlikely. All of these though it will be worth the effort to try. A nuclear scenarios place a premium on crisis stability. Given its relationship with than make this a long and costly process. Whether this reality is recognized of the international community should work to by the international community or not, all countries ensure growth of the North Korean program remains will need to figure out how to deal with a nuclear difficult and expensive by limiting as best as possible North Korea while maintaining peace and security in its access to crucial materials and technology. In addition, continued solely those of the author and do not imply endorsement vigilance is critical to ensure North Korea is not by Harvard University, the Harvard Kennedy School, able to transfer technology and materials to other or the Belfer Center for Science and International aspiring states. Motivations, Strategy, and Doctrine. Power, Ambition, and the Ultimate Weapon. Georgetown University Press, October Plutonium or Highly Enriched Uranium? For more from the Project on Managing the Atom, please visit <http://> He is resource issues, and science and technology policy. Faculty and fellows policy-relevant research about the future of nuclear analyze global challenges from nuclear proliferation weapons, nuclear energy, and the connections between and terrorism to climate change and energy policy. The project also hosts an international fellows program designed to help prepare the next generation of leaders for work on nuclear policy issues.

Chapter 5 : North Korea » National Security Strategy Archive

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largely for maintaining a.

Chapter 6 : Institute for Strategy and Reconciliation - Wikipedia

On Sunday, the Pentagon deployed a strike group moving towards the western Pacific, because "it is prudent" to have the ships near North Korea, said national security adviser HR McMaster.

Chapter 7 : Cyberwarfare - Wikipedia

Despite continuing efforts to convince North Korea to relinquish its nuclear capability, it appears increasingly unlikely that it will ever do so. Pyongyang might be willing to curtail or freeze certain parts of the program but the likelihood of North Korean denuclearization is quickly fading.