U.S. Senator Martin Heinrich
Highlights FY19 National Defense Authorization Act

NEW MEXICO MILITARY CONSTRUCTION PROJECTS

Holloman Air Force Base

- Senator Heinrich secured $85 million to construct a new MQ-9 Formal Training Unit (FTU) Operations Facility to house three MQ-9 Attack Squadrons at Holloman Air Force Base. The squadrons are the training units for new pilots and sensor operators for the MQ-9 Reaper remotely Piloted Aircraft (RPA). The RPA mission is one of the fastest growing missions in the military, and this new facility represents a significant investment by the Air Force that will enable Holloman Air Force Base to meet the growing demand for pilots and sensor operators.

White Sands Missile Range

- Senator Heinrich secured $40 million to construct a new Information Systems Facility at White Sands Missile Range. This is the first major military construction project in direct support of testing and evaluation at White Sands in nearly 20 years. This badly needed facility will replace a facility that was built in 1962 and allow White Sand to better use their current information technology by consolidating existing systems, currently located in ten separate buildings, into a single state of the art, purpose-built facility. Consolidating information systems will significantly improve their ability to develop and test next generation weapon systems while also providing the infrastructure necessary for future modernization and expansion.

- Senator Heinrich secured $6.5 million for construction of important science and technology facilities at White Sands Missile Range. These funds will be used to expand the guided missile test building to meet testing requirements of larger missile motors, refurbish the high-power microwave building, and construct a new 3,000 square foot electromagnetic interference laboratory to meet increasing demand.

Kirtland Air Force Base

- Senator Heinrich secured $7 million for critical upgrades to Wyoming Gate at Kirtland Air Force Base. These upgrades are necessary to bring the gate into compliance with current anti-terrorism and force protection standards for military facilities.

- Senator Heinrich secured $10 million for construction of important science and technology facilities at Kirtland Air Force Base.

- Senator Heinrich secured $462,000 to replace and modernize exterior lighting at Kirtland Air Force Base with more energy efficient solutions.

Los Alamos National Laboratory Plutonium Mission

- Senator Heinrich supported full funding and reasserted the Senate Armed Service Committee's strong support to maintain Los Alamos National Laboratory's (LANL) role as the nation's Center of Excellence for Plutonium Research. The bill authorizes $361 million—an increase of $150 million over fiscal year 2018—for LANL's plutonium research and pit production. The increased funding supports personnel, equipment and other activities in PF-4 to meet pit production requirements by 2026. The bill authorizes an additional $235 million for construction related to replacing the outdated Chemistry and Metallurgy Research (CMR) building at LANL.

  During committee markup, Senator Heinrich secured an amendment directing NNSA to contract for an independent review of the estimated costs for each of the strategies evaluated to meet the Pentagon's requirements for production of additional plutonium pits. The cost estimates in the recent Engineering Analysis served as part of the basis for NNSA's recent recommendation to split the production of plutonium pits between LANL and South Carolina. Senator Heinrich continues to raise concern that halting the long-planned modular expansion of LANL's facilities for plutonium pit production will set back our military's life extension programs and stretch the lab's existing facilities and workforce to its limits. The independent review will help protect taxpayers by assuring this important decision will be based on verifiable and transparent cost estimates. The results of the independent review are expected to be submitted to Congress by October 1.

NNSA Albuquerque Complex Project

- Senator Heinrich authorized $48 million to continue construction of a new Albuquerque NNSA Complex on Eubank Blvd to replace the existing outdated and inadequate 50-year old facility. The project is estimated to cost around $174 million and take about four years to complete. The new building will house up to 1,200 federal employees. A contract has been awarded and construction is planned to begin this summer.

NNSA Employee Recruitment and Retention

- The bill includes a provision to make permanent NNSA's personnel management system that has been used successfully on a trial basis for over 10 years. The temporary personnel system has enhanced the recruitment and retention of federal employees of the Department of Energy's NNSA. NNSA needs to attract highly technical employees to manage critical national security programs, including about 800 based in New Mexico. Key advantages of NNSA's personnel system include helping attract and retain top talent by offering competitive salaries, reducing attrition rates, and properly rewarding high-performing employees.

Life Extension Programs

- Senator Heinrich supported full funding of $1.9 billion to continue the Life Extension Programs as executed by Sandia and Los Alamos National Laboratories. The increase of $180 million over FY18 will maintain the existing weapons stockpile and assure safety and security.

Los Alamos National Laboratory (LANL) Environmental Cleanup

- The bill authorizes $191.6 million for soil and water remediation and removal of radioactive waste. Funding is included again this year to address the hexavalent chromium plume in groundwater in Los Alamos.

Radiation Hardened Microelectronics

- Senator Heinrich passed an amendment with unanimous support to assure Sandia Labs continues to be the nation's center for the specialized microelectronic systems used in every nuclear weapon. The facility is over 30-years old and key infrastructure systems must be repaired or replaced. The amendment directs the National Nuclear Security Administration (NNSA) to develop a strategy within 6 months to upgrade Sandia's unique MESA Complex for both research and production of strategic radiation-hardened microelectronics. To support future life-extension efforts, the required upgrades must be completed by 2025.

Waste Isolation Pilot Plant (WIPP)

- The bill authorizes $403 million, an increase of $80 million over last year, to operate the Waste Isolation Pilot Plant (WIPP), including $84 million to continue construction of additional ventilation for the mine.

Heinrich Provisions – New Mexico's Defense R&D Labs, Test Ranges, and Industry

As Ranking Member of the Emerging Threats and Capabilities Subcommittee, Heinrich authorized a $566.2 million increase above the President's Budget request in funding for science and technology programs. This includes an additional $150 million to establish a venture capital fund for DOD, modeled on the CIA's InQTel program. This fund will be used to develop interaction with the commercial technology industry and academia with the goal of encouraging private investment in specific technologies of interest.

Joint Directed Energy Test Center

- Senator Heinrich passed an amendment with unanimous support to support modernizing directed energy test infrastructure at White Sands Missile Range. The High Energy Laser System Test Facility (HELSTF) at White Sands was built in 1975, but the technology has seen significant advancements over the course of four decades. As directed energy weapon systems mature, the need to validate their performance becomes increasingly

important. Heinrich included language noting that the workload and number of directed energy demonstrations and exercises have increased significantly since 1975 and that the projected workload for fiscal years 2018-2022 for HELSTF is large and growing, and has expanded to include high-powered-microwave testing. Heinrich secured an increase of $15 million to upgrade the DE infrastructure at HELSTF.

High Powered Microwave Research

- Senator Heinrich successfully passed an amendment with unanimous support that will specifically authorize the Joint Directed Energy Transition Office (JDETO) to engage in basic and applied research of high powered microwave (HPM) capabilities. Currently the JDETO only engages in High Energy Laser research. Heinrich also authorized an increase of $10 million for the office in order to support the execution of basic research at the university level and focus applied research efforts into the joint development of an effects database, common models, and predictive capabilities for High Powered Microwave technology capabilities.

Radiation Detection Technology

- Senator Heinrich successfully passed an amendment with unanimous support that urges the Army to conduct a rigorous, fair and open competition for its radiation detection system to ensure the very best dosimeter is developed and selected for deployment to soldiers worldwide in order to increase unit and individual survivability. Senator Heinrich also approved language that requires a report on chemical, biological, radiological, and nuclear equipment shortfalls at the United States Forces Korea. The amendment seeks to ensure the Army modernizes its radiation detection equipment and follows Heinrich's recent announcement for Aquila to manufacture dosimeters for the National Guard.

Direct Hire Authority for Graduates of Minority Serving Institutions

- Senator Heinrich supported bill language providing Department of Defense science and technology reinvention laboratories and major range and test facility bases with direct hire authority for recent graduates with degrees in science, technology, engineering, or math from minority-serving institutions. Many of New Mexico's universities qualify as minority-serving institutions.

Expedited Access to Technical Talent

- Senator Heinrich successfully passed an amendment with unanimous support that requires the Secretary of Defense to establish multi-institution consortia, cooperative agreements, and task order contracts with universities to facilitate expedited access to university technical expertise in the areas of space, infrastructure resilience, photonics, and autonomy. University task orders will allow the Defense Department to enable easier and faster collaboration with universities rather than using traditional contracts. In doing so, the provision will enable experts at New Mexico's universities to collaborate with DoD research labs, like the Air Force Research lab at Kirtland Air Force Base. The

provision also extends the sunset until 2023 to provide sufficient time to analyze the effectiveness of the university task orders.

Improve Direct Hire Authority at Department of Defense Labs

- Senator Heinrich supported bill language that extends and enhances existing direct hire pilot programs at Department of Defense Laboratories. This provision provides laboratory directors with greater flexibility to make better use of set term appointments.

Heinrich Provisions - New Mexico Military Personnel

Remotely Piloted Aircraft (RPA) Community Challenges

- Senator Heinrich successfully passed an amendment with unanimous support directing the Comptroller General of the United States to complete a report on the Air Force's plan to improve services at RPA bases, as well as the service's plans to implement a sustainable combat-to-dwell policy. New Mexico's Holloman Air Force Base and Cannon Air Force Base both have significant RPA missions. The Senate Armed Services Committee continues to be concerned that a lack of support services, increased stressors, and unsustainable combat-to-dwell ratio have a negative effect on the Air Force's ability to meet retention goals for RPA pilots and sensor operators.

National Guard Counter-Drug Program

- Senator Heinrich authorized $117.2 million for the National Guard Counter-Drug Program as a valuable component of the broader Department of Defense Counter-Drug program. These funds will better enable our National Guard forces to combat drug trafficking contributing to the growing drug epidemic.

Department of Defense Support to Local Education

- Senator Heinrich authorized $40 million for continuation of a Department of Defense (DoD) assistance program for local schools attended by children of military and DoD civilian families. Senator Heinrich authorized an additional $10 million in impact aid for local schools that provide support to DoD children with severe disabilities.

New Mexico Space Missions

Space Rapid Capabilities Office (Sp-RCO) at Kirtland Air Force Base

- Senator Heinrich has been a strong advocate of the Operationally Responsive Space mission, which was recently re-designated as the Space Rapid Capabilities Office (Sp-RCO), and has consistently worked to increase funding for this critical small satellite mission at Kirtland Air Force Base. This year, Heinrich authorized $316 million in funding, a significant increase from last year's $87.57 million, in order to continue responsive space efforts. The bill also includes reforms to the office to replicate the

culture and processes of the current Air Force Rapid Capabilities Office, which is considered the gold-standard for enabling rapid requirements validation, funding, and execution. These changes will help Kirtland continue its role as the small satellite center of excellence for the military.

- Senator Heinrich successfully introduced an amendment directing the Air Force to develop a plan for establishing classified workspace, near Sp-RCO, that can be used by potential commercial partners to facilitate the rapid fielding of new space capabilities.

Space Test Program at Kirtland Air Force Base

- Senator Heinrich authorized $25.62 million for the Space Test Program at Kirtland Air Force Base. Since 1965, the Space Test Program (STP) has conducted space test missions for the purpose of accelerating Department of Defense space technology transformation while lowering developmental risk. STP serves as the primary access to space for the Department of Defense space science and technology community.

Small Satellite Modular Arrays

- Senator Heinrich successfully passed an amendment with unanimous support that encourages the Air Force to explore modular arrays that combine separate power subsystems into a more efficient and cost effective integrated system in order to accelerate the deployment of small satellites. SolAero Technologies in Albuquerque is currently an industry leader in manufacturing solar panels for space power applications.

Laser Communications

- An amendment by Senator Heinrich unanimously passed to support the Air Force's efforts to develop laser communications systems that enable the demonstration of secure, covert, anti-jam, very high data rate transmissions and urges the Air Force to budget for laser communications in future planning. Applied Technology Associates in New Mexico is an industry leader in laser communications.

Spaceport America New Mexico

- Senator Heinrich led a coalition of bipartisan senators to successfully pass an amendment with unanimous support that encourages the Air Force to utilize spaceports for future missions. The provisions states that spaceports, including Spaceport America in New Mexico, are "available to help meet the requirements for the national security space program for the DoD, Air Force Space Command, the Space Rapid Capabilities Office, and Missile Defense Agency. The committee also notes that such spaceports improve the resiliency of U.S. launch infrastructure and help ensure consistent access to space to support national security space priorities." The provision further expresses that "The committee believes it is also important for the Department to diversify its launch options and capabilities to include inland sites. Significant investments have been made at inland spaceports, which already have the infrastructure in place to accommodate smaller space

launches for the Department." Lastly, the Heinrich amendment directs the Air Force to conduct an assessment of emerging commercial small launch providers to determine what payloads are appropriate for launch, and a plan for utilizing emerging commercial small launch providers in future launches at inland launch sites.

Heinrich Provisions - New Mexico Military Energy Resilience

Energy Resilience and Efficiency for the Military

- Senator Heinrich has long been concerned regarding the vulnerabilities of cyber-attacks, physical attacks and severe weather, which threaten the military's ability to recover from multi-day utility disruptions that impact mission assurance, including infrastructure beyond just task-critical assets, on its installations.

- Senator Heinrich led efforts to address these concerns by authorizing an increase of $10 million for the Environmental Security Technology Certification Program (ESTCP), for a total of $68.6 million, to identify and demonstrate existing energy storage technology to improve installation energy resilience. Heinrich also authorized an increase of $10 million to the Strategic Environmental Research and Development Program (SERDP), for a total of $87.7 million, to develop improved energy storage and control technology.

- Senator Heinrich authorized an increase of $10 million, for a total of $50.5 million to address urgent concerns regarding energy resilience on military installations. Specifically, Heinrich increased the Operational Energy Capability Improvement Fund (OECIF) and directed the Department to use the funding to address energy production, tactical microgrids, and alternative energy storage solutions.

- Senator Heinrich led efforts to increase funding for the Energy Resilience and Conservation Investment Program (ERCIP) by authorizing an increase of $84.4 million to expand energy conservation construction programs to include energy resiliency, security, and conservation projects.

Additional Heinrich Provisions

Cyber Doctrine

- Senator Heinrich successfully passed an amendment with unanimous support that would establish a policy for the United States Government as it relates to Cyber Deterrence. Heinrich led a bipartisan group in March 2018 urging the President to expedite completion of a national cyber deterrence strategy. To date, a national policy and strategy has not been released. In the March 2018 letter, Senator Heinrich and 13 bipartisan members of the Senate Armed Services Committee declared: "The lack of decisive and clearly articulated consequences to cyber-attacks against our country has served as an open invitation to foreign adversaries and malicious cyber actors to continue attacking the United States."

Cyber Security Coordinator

- Senator Heinrich introduced an amendment that would require the President to appoint a Cyber Security Coordinator within 30 days of enactment. Heinrich is deeply concerned about the administration's decision to terminate the Cyber Security Coordinator position. The Cyber Coordinator would be responsible for developing and coordinating the cybersecurity strategy and policies of the Federal Government and provide oversight and assessment of their implementation across the Federal Government, as well as developing a national cyber deterrence strategy.

Light Attack Aircraft

- Senator Heinrich supported an increase in funding for the United States Air Force to begin procurement of light attack aircraft and associated long-lead material. Developing a fleet of low-cost light attack aircraft will allow the military better conduct air operations in permissive environments and free our more capable fighters to deter our near-peer adversaries.

Ballistic Missile Boost Phase Intercept

- Senator Heinrich authorized an increase in funding for the Missile Defense Agency's technology maturation initiatives in order to achieve a demonstration of a 500 kilowatt laser and a best of breed one megawatt laser capability by 2024. Developing these advanced laser systems will enable the development of an effective boost phase intercept capability for ballistic missile defense.

AC-130J High Energy Laser

- Senator Heinrich authorized $34 million for continued development of the AC-130J High Energy Laser (HEL) program, but raised concerns about the shortfall in funding for this program in budget plans for future years. Senator Heinrich included language in the bill that requires the Under Secretary of Defense for Research and Engineering to submit a plan for fully funding the AC-130J HEL program in fiscal years 2020 to 2022 along with the Department's budget request for fiscal year 2020.

Global Engagement Center

- Senator Heinrich supported a provision to extend the authority for the Department of Defense to transfer up to $60 million to the Department of State's Global Engagement Center (GEC) through fiscal year 2019. The GEC is intended to rapidly and decisively respond to adversary messaging and communication.

Crash Cleanup at White Sands National Monument

- Senator Heinrich successfully passed an amendment with unanimous support to provide explicit authority for an agency or department to incur expenses or reimburse the direct costs for any service relevant to the cleanup of an air, ground, or sea vehicle crash or other accident when that event occurs on the property of another federal agency. This amendment is in response to Holloman Air Force Base's crash of a QF-4 on a heavily travelled part of White Sands National Monument on February 7, 2014.

Rapid Innovation Fund

- Senator Heinrich supported language making the successful Rapid Innovation Fund a permanent authority in the United States Code and clarifying that the program can be used to continuously solicit ideas for technologies that need funding to cross the "Valley of Death," rather than only looking for ideas on a scheduled, periodic basis. Through this fund, eligible technologies can receive up to $3 million in funding over two years. This issue was a theme of the Emerging Threats and Capabilities Subcommittee hearing, at the request of Senator Heinrich, with Dr. Michael Griffin on technology transfer challenges.