First Look: Quantum Computing Research Act of 2018 (S 2998, 115th Congress)

Directs the Department of Defense to coordinate and advance public and private investment in quantum information science technology by establishing the Defense Quantum Information Consortium.

Updated last June 15, 2018
for the 06/05/2018 version of S 2998.

WHAT IT DOES

Bill S 2998 directs the Department of Defense (DOD) to coordinate and advance public and private investment in quantum information science technology by establishing the Defense Quantum Information Consortium. With the White House Office of Science and Technology Policy, the DOD would coordinate with the Naval and Army research labs to partner with and provide grants to leading industry and academia researchers in quantum information science. Senior members of the agencies listed above would select research grant recipients whose proposed research furthers the US’s leadership in quantum information science and technology. Funding for the Consortium and grants would be provided by the DOD and would conclude at the end of the 2024 fiscal year.

RELEVANT SCIENCE

While traditional computers rely on storing and reading information in binary bits, quantum computers make use of new understandings of quantum mechanics that allow information to be read and stored exponentially faster and simultaneously on non-binary quantum bits or “qubits”. While quantum computing can exponentially increase the abilities of single computers, advancement in high-performance computing enables the simultaneous application of multiple sets of computers, called “clusters”, to solve problems. Both quantum and high-performance computing allow for faster and more efficient problem solving, however these new capabilities could also be applied to nefarious uses that will have to be guarded against.

STATUS

S 2998 was introduced in the Senate on June 5, 2018 and subsequently referred to the Committee on Armed Services.

SPONSORS

Sponsor: Senator Kamala Harris (D-CA)

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RECOMMENDED CITATION