32nd Annual **INCOSE**
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hybrid event
Detroit MI USA
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KEYNOTE
SPEAKER

Dr. Christopher J. Scolese

DIRECTOR, NRO

Speaking Topic: **Architecting the Future: The Role of SE and DE at the NRO**

Biography. Dr. Christopher J. Scolese was sworn-in as Director, National Reconnaissance Office (NRO) on 5 August 2019. He is the 19th Director, and the first to be Presidentially Appointed and Senate Confirmed.

Dr. Scolese provides direction, guidance, and supervision on matters pertaining to the NRO and executes other authorities specifically delegated by the Secretary of Defense and the Director of National Intelligence.

Dr. Scolese began his government career as a United States Naval Officer in 1978, supporting a variety of Naval Nuclear Propulsion Programs for the U.S. Navy and the Department of Energy.

In 1987, following a brief period of service working in government and industry, Dr. Scolese joined the National Aeronautics and Space Administration (NASA) where he was assigned to the Goddard Space Flight Center in Greenbelt, Maryland. During this period, he served in a variety of senior management positions including: Earth Observing System (EOS) Systems Manager, EOS Terra Project Manager, EOS Program Manager, and Deputy Director of Flight Programs and Projects for Earth Science.

In 2001, Dr. Scolese was assigned to NASA Headquarters in Washington, D.C. where he served as the Deputy Associate Administrator in the Office of Space Science. In this position, he was responsible for the management, direction, and oversight of NASA's Space Science Flight Program, mission studies, technology development, and overall contract management of the Jet Propulsion Laboratory.

In 2004, he went on to become Deputy Director, Goddard Space Flight Center, where he assisted the Director in overseeing all activities, before returning to Washington, D.C. to become NASA's Chief Engineer in 2005. As Chief Engineer, he was responsible for ensuring all development and mission operations were planned and conducted on a sound engineering basis. In 2007, he was appointed the Associate Administrator, responsible for the oversight and integration of NASA's programmatic and technical efforts. From January-July 2009, Dr. Scolese served as NASA's Acting Administrator, responsible for leading the development, design, and implementation of the nation's civil space program.

In 2012, Dr. Scolese became the Director, Goddard Space Flight Center, where he led the nation's largest organization of scientists, engineers, and technologists responsible for building spacecraft, instruments, and new technology to study Earth, the sun, our solar system, and the universe. On 31 July 2019, he retired from NASA to become the Director, NRO.

Dr. Scolese holds a Bachelor of Sciences degree in Electrical and Computer Engineering from the State University of New York at Buffalo, Buffalo, New York; a Master's degree in Electrical and Computer Engineering from George Washington University, Washington, DC; and a Ph.D. in Systems Engineering from George Washington University, Washington, DC. Originally from Buffalo, New York, Dr. Scolese and his wife, Dianne, currently reside in Springfield, Virginia.

Abstract: Since its inception more than 60 years ago, the National Reconnaissance Office has worked to secure and expand the U.S. intelligence advantage by developing, acquiring, launching, and operating the world's best space-based intelligence, surveillance, and reconnaissance, or ISR, capabilities. That mission is unwavering. But the world in which we operate has changed. Over the past two years, we learned we could no longer take anything for granted. Some of the processes and systems we relied on proved unreliable. The pandemic showed that the global supply chain is fragile, and Russia's assault on Ukraine made it harder to access raw materials. Rather than bemoaning the fact that what worked in the past may not work in the future, we can embrace this changing world as an opportunity. This presentation will explore how the NRO aims to take advantage of new capabilities to be faster and more efficient, relying on systems engineers and their digital engineering tool box to mitigate risks and architect the future.