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## Faces of NPS: Erick Samayoa

Samayoa, Erick

Naval Postgraduate School, Monterey California

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# Faces of NPS

Spotlighting the students, faculty, staff and alumni of our Nation's premier defense education and research institution.



**Lt. Erick Samayoa**

**M.S. IN APPLIED PHYSICS, '21**

Lt. Erick Samayoa is a native of California. He earned a Bachelor of Science in Physics from The Citadel and commissioned through NROTC as a Surface Warfare Officer. Samayoa's operational assignments include Strike Officer onboard USS Anzio (CG 68) and deployed with Harry S. Truman Strike Group in support of Operation Inherent Resolve. He then reported onboard USS Mobile Bay (CG 53) as Training Officer went on global circumnavigation deployment with John C. Stennis Strike Group. Ashore, Samayoa reported to the Naval Postgraduate School as a student in the Applied Physics of Combat Systems Program and a Rear Admiral Wayne E. Meyer Scholar.

Samayoa is currently a student at Surface Warfare Officers School completing the Department Head Course before reporting as Weapons Officer to USS Princeton (CG 59). His personal awards include Navy Commendation Medal, Navy Achievement Medals (two awards), and unit awards.

**You were selected to be a part of the inaugural Meyer Scholar program at NPS. Can you describe the program and its goals and how it evolved during your time at NPS?**

The program is named after Wayne E. Meyer, who is known as the Father of AEGIS after having been the first program manager of the AEGIS Shipbuilding Project. We aim to follow and preserve the fundamental principles he developed for combat systems engineering. The Meyer Scholar Program goal is to develop officers who are exceptionally well-educated in the science and engineering disciplines associated with Integrated Air and Missile Defense (IAMD) and help lead the development and employment of these intricate systems. The program started off with discussions among the students after reading articles in regards to IAMD. As the program continued, we began to have guest speakers such as the intelligence briefs from the IAMD N2 cell from the Naval Surface and Mine Warfighting Development Center to completing Joint Knowledge Online courses relating the link architecture to ballistic missile defense on top of our NPS course load.

**Your study was the first to look at the use of UHTCs in aircraft turbines. What prompted you to start researching this potential? What was the most interesting thing you found over the course of your research?**

Originally, I was interested in hypersonic development — more specifically, the material needed to withstand the extreme temperatures experienced during flight. After exploring different thesis topics, I became interested in Professor Nieto's research — the same material used for hypersonic can be used in aircraft turbines. The most interesting thing I discovered over the course of my research is how many DoD applications require new unique solutions to operate in extreme environments from the aero-bodies for hypersonic missiles to the turbine blades of aircraft to laser systems in a littoral environment.

**What potential impact can your research and continued research in the area have on DOD aircraft safety and maintenance?**

The research can actually reduce maintenance requirements and extend the service life of engines as well. More importantly, it can enable the warfighter to operate in the more extreme environments without hazarding the aircraft — our armed forces will continue to operate anywhere our nation calls on us to go.

**How did your time at NPS impact your career trajectory? What are you doing now and what are your goals?**

I am more committed to the IAMD mission set and realize this is a joint project that requires interoperability with our sister services from the F-35 from the Air Force to

the Terminal High Altitude Area Defense (THAAD) batteries from the Army to the Aegis Combat System from the Navy — I want to work in this field. I am finishing up Department Head Course at Surface Warfare Schools Command before reporting to USS PRINCETON CG 59 as the Weapons Officer. My goal after completing my department head tour is to become an IAMD Warfare Tactics Instructor and work on developing new tactics for the Fleet.

**At NPS, operationally experienced students work directly with their peers in a joint environment and with expert faculty to address the challenges of the force. How does this approach to education set NPS apart from other institutions and affect student learning?**

This is what makes NPS a great institution! The fact that students from across the DOD can collaborate with professors is a unique experience no other place can offer. Current issues that our military faces quickly make their way to technical experts and professors who are eager to tackle and solve these problems with active-duty students. NPS works for the warfighter.

<https://www.npsfoundation.org/faces-of-nps/lt-erick-samayoa>