

**USNAVSOUTH and Salvadoran
Navy integrate Robotic and
Autonomous Systems during
FLEX 2025**



SAN SALVADOR, El Salvador (May 27, 2025) – Captain of the Salvadoran Navy, Capt. Omar Hernandez, left, and U.S. Naval

Forces Southern Command / U.S. 4th Fleet Commander Rear Adm. Carlos Sardiello, right, receive a Tsunami unmanned surface vessel (USV) capabilities overview during the Hybrid Fleet Campaign (HFC) Fleet Experiment (FLEX)'s showcase event at CSL Comalapa near San Salvador, El Salvador, May 27, 2025. (U.S. Navy photo by MCC John R. Fischer)

By USNAVSOUTH/4TH FLEET PUBLIC AFFAIRS, May 29, 2025

SAN SALVADOR, El Salvador – SAN SALVADOR, El Salvador (May 27, 2025) – Cooperative Security Location (CSL) Comalapa, in coordination with the Salvadoran Navy, hosted the annual U.S. Naval Forces Southern Command / U.S. 4th Fleet Hybrid Fleet Campaign (HFC) Fleet Experimentation (FLEX) Event demonstrating combined/joint integration potential for unmanned systems during a showcase event in San Salvador, El Salvador, May 27.

In its 25th year of operation and as one of only two forward operating locations in the United States Southern Command area of responsibility, CSL Comalapa's mission to assist in the joint/combined regional mission of combatting transnational organized crime created the perfect opportunity to transition FLEX from partner nation observation to partner nation participation.

"The intent of FLEX is twofold," said USNAVSOUTH Commander Rear Adm. Carlos Sardiello, "To accelerate technological advancements through cooperation with industry and international partners, and to operationalize those advancements to increase maritime domain awareness to counter illicit traffic flow. As a cornerstone of the efforts to combat transnational organized crime, it is only fitting that CSL Comalapa be the first location to host FOURTH Fleet's Hybrid Fleet Campaign FLEX Event outside the United States."

HFC is a learning campaign to retain and improve advantages using next-generation manned and unmanned systems. In 2025 the

FLEX series is enabling scaled hybrid fleet operations from robotic and autonomous systems (RAS) experiments into months-long deployments integrated with partner nations. In turn, these deployments feed vast amounts of data to the 4th Fleet Maritime Operations Center (MOC).

“Surface, aerial, and undersea autonomous systems stack together to give us highly effective maritime domain awareness,” said Cmdr. Jon Williams, the USNAVSOUTH technology and Innovation director. “But all of these systems are inherently independent. Part of what we’ve done here at Comalapa is an advanced data fusion. Each of these independent systems communicate together and provide an integrated feed that we monitor from the MOC in Mayport.”

King Air manned aircraft teamed with Resolute Eagle unmanned aircraft systems (UAS), Tsunami unmanned surface vessel (USV), Minotaur data fusion, and Lema expeditionary solar power to operate with Salvadoran navy Task Force (TF) Tridente in various combinations from April 1 to May 23.

Synchronization now happens in real time, connecting RAS, tactical teams, and operations centers enabling a common operating picture for highly effective operations. During FLEX, TF Tridente accomplished the interdiction and apprehension of narcotics smugglers with the assistance of this synchronized system. Practical tests showed the capability of single or combined systems to find, fix, track, assess, disrupt and pursue training targets from longer ranges and less exhaustion to manned interdiction crews.

“El Salvador is a capable and willing partner,” said Dr. Christopher Heagney, the NAVAIR Fleet/Force Advisor to USNAVSOUTH, “accelerating new manned and unmanned technologies from Navy Laboratories and the acquisition community into the hands of Sailors will deliver more capability at lower cost and risk. Operating those systems in El Salvador helps us

disrupt illicit traffic flows into the homeland while also providing a testbed to innovate with our partners.”

USNAVSOUTH is working with the Creative Defense Foundation to better connect Congressional appropriators with Industry, operational, and acquisition communities. As Congress funds new pathways for rapid capability development and employment, the United States Southern Command area of responsibility is a perfect environment to innovate.