

Corps Begins Fielding Mobile Satellite Communication System

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U.S. Marine Corps Cpl. Frankie Garcia calls for a radio check using a PRC-117G at Marine Corps Base Camp Pendleton, California. U.S. Marine Corps/Lance Cpl. Jason Monty
MARINE CORPS BASE QUANTICO, Va. – The U.S. Marine Corps recently began fielding a next-generation narrowband satellite communication system that assists warfighters in connecting to networks on the battlefield, Marine Corps Systems Command (MCSC) said in a June 12 release.

Fielded in the first quarter of 2019, the Mobile User Objective System provides satellite communication capabilities to mobile or stationary Marines. The system enables the warfighter to leverage cellular technology to increase access to voice and data communication while using the MUOS network.

“MUOS is another way for warfighters to communicate in a tactical environment,” said Eddie Young, project officer of Multiband Radio II Family of Systems at MCSC. “The system brings [satellite communications] capabilities in various formats to Marines.”

The MUOS capability encompasses updated firmware to the AN/PRC-117G radio system and one

of three antenna kits. The antennas help Marines simultaneously access satellite networks and gives them secure and nonsecure internet access. MUOS also improves overall reliability in urban environments, challenging vegetation and other arduous conditions.

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*Eddie Young, project officer, Multiband Radio II Family of Systems,
Marine Corps Systems Command*

"MUOS is essentially software and an antenna capability augmenting existing hardware," said Noah Slemph, systems engineer at MCSC. "It's similar to adding an application to a cellphone."

The first service to widely employ MUOS, the Corps is deploying thousands of antenna kits for the AN/PRC-117G radio system and hundreds of diplexers that enable vehicular systems to access MUOS satellites.

"The Marine Corps is leading all services in terms of getting MUOS to warfighters," Young said.

Satellite communication has become increasingly important for the Corps in the 21st century. According to the Department of Defense, more than 50

percent of DoD
satellite communication involves narrowband communication.
Yet, this form of
communication accounts for less than 2 percent of the DoD's
bandwidth, making
it an efficient way to transmit information.

MUOS is
particularly important because the satellite communications
infrastructure of
the legacy system is nearing its expiration, Slemp said. As a
result, the Corps
intends to incrementally replace the older capabilities with
the MUOS waveform,
enabling more Marines to access ultra-high frequency tactical
satellite
communications.

Prior to
fielding MUOS, MCSC had to demonstrate to the Milestone
Decision Authority that
the system was safe, met technical performance and was ready
for use by the
warfighter. Since MUOS's Field User Evaluation in 2017,
Marines have raved
about the benefits of the system.

"Our Marines
find MUOS useful in completing their missions," Young said.
"We've received a
lot of positive feedback thus far."

The efforts
of Young's team in getting the system out to the warfighter
have not gone
unnoticed. In May 2018, at a Narrowband Working Group
conference in Colorado
Springs, Colorado, the Joint Staff J6 and the DoD Chief

Information Officer recognized
Young and Slemph for leading the services in employing MUOS.

The J6 and DoD

CIO also emphasized the joint effort between the Multiband
Radio II team and
the Naval Information Warfare Center in using the Multiple
Reconfigurable
Training Systems, an interactive training aid that will be
used to assist in
the rapid fielding of MUOS.

“It was
motivating to see that we were recognized for our efforts,
because the team had
put in a considerable amount of time and effort to make this
happen,” Young said.

“We recognize the warfighter needs this capability, and we’ve
done everything
we can to get it to them in a timely manner.”