Developer and manufacturer of the Lightweight Water Purification System (LWPS) Primo Acernese explains to Seabees attached to Naval Mobile Construction Battalion (NCBC) Gulfport how each of the components of the LWPS works. Seabees will began using LWPS in 2013 while deployed to areas where pure drinking water is not readily accessible. (U.S. Navy photo by Construction Electrician Constructionman Lucinda L. Moise/Released)

Seabees adopt new water purification system; increase safety, versatility

By CECN Lucinda L. Moise
NCBC Public Affairs

Seabees often deploy to hostile areas with austere living conditions, where potable water may not be readily available. In these situations a convoy operation is likely to be required to procure fresh, drinkable water or to purify the water themselves.

The Naval Construction Force has taken a step toward convoy operations safety and water purification versatility by adopting the Lightweight Water Purifications System (LWPS) for use by forward-deployed units.

Fourteen students from Naval Mobile Construction Battalions (NMCB) 1 and 133, along with 20th Seabee Readiness Group (SRG), attached to Naval Construction Battalion Center (NCBC) were the first Seabees to graduate from LWPS training facilitated by Contingency Construction Crew Training (CCCT), June 28.

The Seabees purchased the LWPS from Tactical Environmental Components Water Asset Recovery (TECWAR) developer and manufacturer, Primo Acernese.

LWPS is a portable reverse osmosis system and has been utilized by the United States Marine Corp in Afghanistan during Operation Enduring Freedom, military field operations, and emergency response and disaster relief.

It was first used by the Marines to eliminate the need to convoy in Afghanistan for resupply of bottled water.

"The convoys were under constant attack. Marines got all their water by transporting to the camps by convoys and they were always under ambush.

Twenty-two days after the Lightweight Water Purification System was taken to Afghanistan there were only 5 percent of the convoys moving, so we saved a lot lives by taking away the requirement of transporting water," said Acernese.

LWPS will be used by Seabees deployed to parts of the world where pure water is not readily accessible.

The Lightweight Water Purifications System produces 125 gallons per hour from fresh water and 75 gallons per hour from salt water, and only takes two people to set up and one to operate it.

According to Utilitiesman 1st Class Ryan Rygh, the LWPS is more versatile than the previous water purifications systems.

"The Lightweight Water Purifications System will replace DE 6000 and 3000D, which can only purify fresh water. LWPS can purify fresh and salt water. It can even purify biological and chemical contaminated water," said Rygh. "By the time the process is done, it's more pure than bottled water," said Rygh.

LWPS will be added to the 20th SRG Table of Allowance (TOA) in early 2013 and distributed to commands deploying to areas which require Seabees to purify water for their daily needs.

22 NCR, NMCB 7 return to Family, Friends

Family and friends welcomed home more than 240 Seabees from NMCB 7, Delayed Party, and 20 from 22nd Naval Construction Regiment, who returned June 30 from a six month deployment providing support to Coalition forces in support of Operation Enduring Freedom in Afghanistan. (U.S. Navy photos by Chief Mass Communication Specialist Ryan G. Wilber/Released