

DC USA Builds New Dual-Use Mine Sweeper Cable Assembly

The United States Navy currently employs two methods of clearing underwater mines: surface ship towed systems and helicopter towed systems. Until now, each towed system required different cable assemblies. Several years ago, the United States Navy decided to combine the two designs into one cable system for either deployment method to maximize their investment.

Mine sweep cables must withstand tremendous physical abuses, such as being towed at high speeds and withstanding very high conductor temperatures.

As an industry leader for decades in manufacturing mine sweep cables, Draka Cableteq USA drew upon the significant skills and experience of its design engineers, process engineers and research and development team to design a cable assembly that met all of the Navy's requirements.

Critical suppliers were an extremely important part of the success of this endeavor. Hollow plastic floats make the cable buoyant, and new floats had to be designed and prototyped with a new material. Draka Cableteq USA working very closely with its float supplier, maximized the strength of the floats (and therefore the cable) while keeping a desired overall diameter and buoyancy.

The physical abuse and high conductor temperature that this cable endures while deployed also necessitated the use of new jacket materials, as compared to older legacy systems. Nylon-11 would meet the necessary requirements, and Draka Cableteq USA had successfully used that material many times when manufacturing smaller cables; however, Nylon-11 had never been extruded over such a large diameter. Draka Cableteq USA worked with its compound supplier to overcome this challenge and together perfected a method to extrude a beautiful and strong jacket over the cable.

The new cable assembly (called the CA-1452 Mod 1) successfully passed the first article testing and Draka Cableteq USA refitted the United States Navy with a better, more versatile product suitable for deployment on multiple platforms.