SINGLE CABLE ADVANTAGES

Survival Systems International’s Capsules utilize a single cable for raising and lowering. Outlined below are the significant advantages in using one rather than two cables as are used on twin-fall lifeboats.

THE SIMPLICITY & SAFETY OF RAISING & LOWERING USING A SINGLE CABLE

The fundamental function of raising and lowering a weight is easier, more logical and safer using a single point and a single cable. Using a crane as an example of how to correctly raise and lower a load: the primary function of a crane is to raise and lower heavy weights and they use a single point lift as it is the safest and easiest way to lift a heavy weight. SSI capsules utilize a single lift point, single cable concept, twin-fall lifeboats use a two lift point two cable concept.

Having two lift points and two cables offers no advantage and significantly increases the complexity of raising and lowering a lifeboat and the complexity of the release system required. Why do twin-fall lifeboats choose to use two cables to lift? The answer to this is that they need to use two cables due to the shape of the lifeboat. It is not possible to lower an elongated lifeboat safely on a single cable.

Why do twin-fall lifeboats elect to use an elongated boat shape? The answer is twofold. Firstly this is the shape that boat builders have know how to build for hundreds of years, secondly these lifeboats are designed for ships which have a narrow space requirement for the lifeboat.

There is no reason to have a long elongated lifeboat on a rig or platform. Using a twin-fall lifeboat on a rig or platform therefore provides no advantage but greatly increases the complexities involved in raising and lowering the lifeboat.
ADVANTAGES BELOW THE CABLE – ONE CABLE MEANS ONE HOOK

Years of research has shown that the primary cause of lifeboat accidents, and in particular the severe accidents, is the hook and hook release mechanism. The hook and hook release mechanism is widely seen as the most dangerous piece of equipment on a lifeboat.

Twin-fall lifeboats double the most dangerous part of a lifeboat, the hook and hook release mechanism.

In addition to doubling the risk, a twin-fall hook then compounds this risk as it requires increased release mechanism complexity (and potential failure) due to the need for simultaneous release. The hooks need to be connected via operating cables to a central release mechanism. A single hook system does not require any of this increased complexity.

Note: Having two hooks does not offer redundancy. Each hook performs a different function. The front hook holds up the front of the boat and the back hook holds up the back of the boat. No twin-fall lifeboat is designed to be held by one hook. Typically, when one of the hooks fails, the other hook releases or rips out due to the extra weight and swing.

ADVANTAGES ABOVE THE CABLE – ONE CABLE MEANS A SIMPLER LAUNCHING SYSTEM (WINCH)

Single cable design allows for a more simple and reliable winch design.

Twin-fall systems have complications that are a result of having two cables – sheaves, double wrapping etc. Such complications reduce reliability and increase maintenance issues. The SSI system has one single layer of cable on a grooved drum, where the cable goes directly from the drum to the Capsule.