

Side-Scan Sonar (SSS)

A Side Scan Sonar (SSS) transmits high frequency sound pulses that map the seabed either side of the unit. This torpedo-like instrument, also called a 'tow-fish', is towed behind the vessel close to the seabed. It can produce very high-resolution information if the team needs to investigate a wreck or specific area of seabed for habitat mapping. They are particularly useful to investigate the status of pipelines and cables on the seafloor, for dredging operations and environmental studies. It also has military applications including mine detection!

The SSS is normally towed behind a vessel or installed on underwater vehicles. They emit conical or fan-shaped acoustic pulses down toward the seafloor which are recorded as a series of cross-track 'slices'. When stitched together along the direction of motion the slices form an image of the sea bottom. The sound frequencies used in side-scan sonar usually range from 100 to 1000 kHz; higher frequencies yield better resolution but less range.

SSS data is not routinely acquired during standard INFOMAR surveys but can be requested for specific research including marine archaeology or commercial applications. INFOMAR uses the [Edgetech](#) SSS to acquire high-resolution images of wrecks that have first been identified using MBES.

More information on SSS can be found [here](#). Recommended operating guidelines (ROG) for side-scan sonar can be downloaded [here](#). Where available, SSS data can be downloaded from [here](#).

