

# Estimate new MBES Coverage

## Rationale:

This tool creates a vector polygon output file which shows the estimated coverage of a MBES system predicted to be acquired over the area. It uses low resolution bathymetric data, such as GEBCO as a guide to swath width. It is not an exact representation of the actual coverage but a guide to placing tracklines.

## Usage:

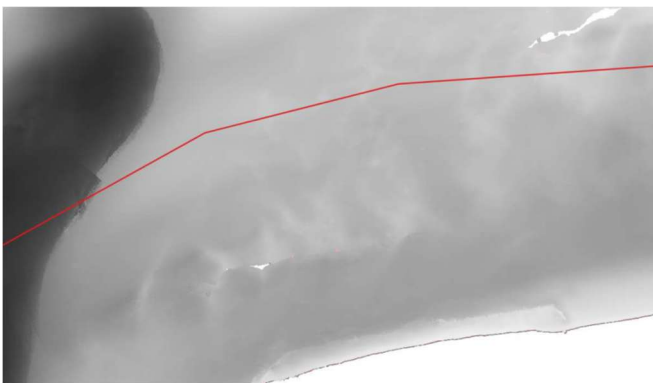
This tool requires four inputs::

- A background bathymetry grid to be used for approximate depth estimation. This bathymetry file must be in a meter projection such as UTM or Mercator and not geographic coordinates. GEBCO data is suggested for deep water.
- A trackline shapefile of the suggested survey line. It can be a single line or multiple lines.
- The total swath angle for the MBES. A default value of  $140^\circ$  is provided but can be changed by the user.
- Either a constant altitude above the seafloor (e.g an AUV) or a constant depth value (e.g. 1.0 for surface systems or a constant set value for an AUV)

Output is a single polygon vector shapefile and its default filename is the same as the trackline filename with “\_coverage” added to the name. Format output is .shp (plus its associated companion files).

## Example:

Bathymetry data and trackline



Swath coverage (140°)

