

# Time-lapse Replay



KONGSBERG



Add-on for K-Bridge Radar

## Small or moving targets

The Small Target Detection option for K-Bridge Radar helps radar operators see echoes that are otherwise hard to detect.

It is ideal for navigating in coastal waters, for performing search and rescue operations, or for any situation that requires detection of small or moving targets.

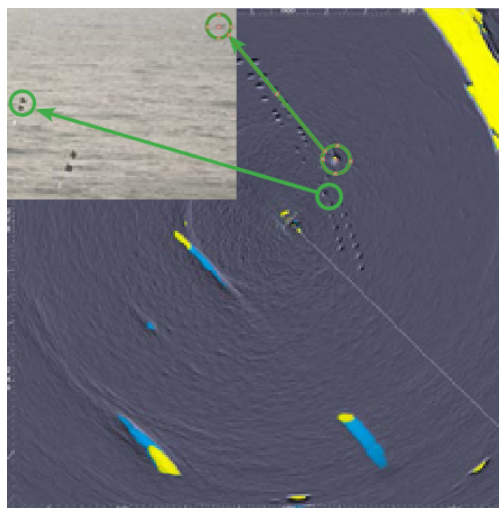


Figure 1 Targets detected using Relief Underlay. The targets ringed in the inset photograph are (left) a buoy and (right) a fisherman in a small boat.

### Benefits

- **Time-lapse Replay**  
Provides continuous replay of compressed radar video from the last 1 minute or 15 minutes (the period is selectable). This feature helps the radar operator either to detect high-speed moving targets (1-minute replay) or to detect the movement of slowly drifting objects (15-minute replay).
- **Relief Underlay**  
Provides an additional image layer behind the normal echoes on the radar display. This layer replaces the normal radar background and allows weak echoes - that would otherwise be hidden in clutter - to be presented in clear relief.

## Relief underlay: for small targets

The Relief Underlay feature collects radar echoes over a longer time than is traditionally used for radar imaging. This means that clutter and noise (whose signals are of only short duration) can be easily distinguished from weak echoes (whose signals, though weak, are sustained). The clutter and noise are then eliminated and the weak echoes presented in clear relief.

Relief Underlay is especially useful for navigating in coastal areas: fishing gear, shallow waters, low land, and buoys will all show up in clear relief on the display.

For search and rescue operations, Relief Underlay - used in combination with water stabilization - will help the radar operator detect small objects and people floating in the water.

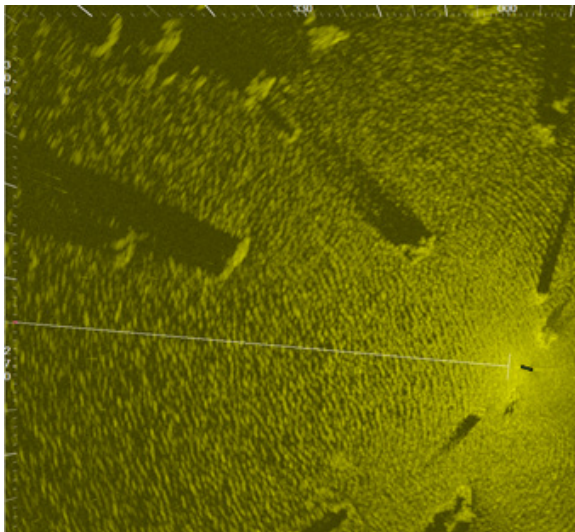


Figure 2a Normal radar, navigation poles hidden in clutter

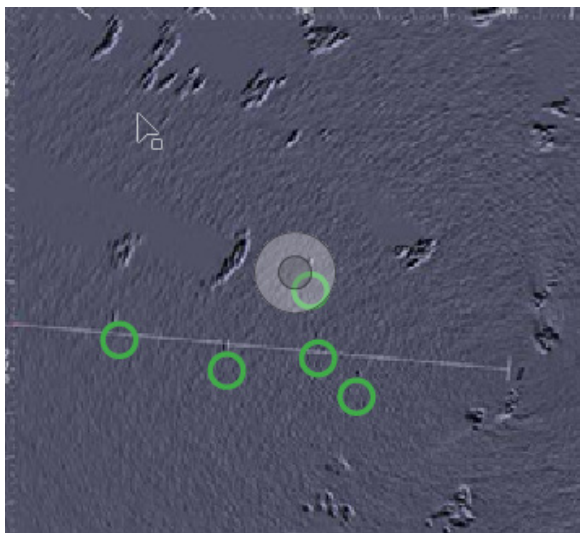


Figure 2b Relief underlay, navigation poles revealed

## Time-lapse Replay: for moving targets

The Time-lapse Replay feature helps operators detect moving targets and distinguish false echoes.

The operator watches a time-lapse replay of the last 60 seconds or 15 minutes (the time period is selectable) of radar video on the radar display. The video is compressed into approximately 2 seconds of footage and is continuously repeated on the display for as long as required. As the operator watches, moving targets are instantly revealed by their sudden and rapidly repeated movement.

The 60-second replay is ideal for detecting high-speed vessels.

The 15-minute replay reveals drifting objects whose slow movement is not apparent from the normal radar image.

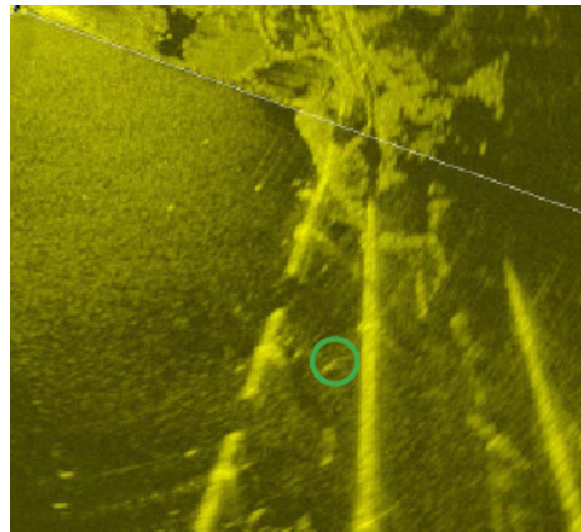


Figure 3a Time-lapse Replay (moving targets revealed by jerky repeated movement during playback; compare Fig. 3b)

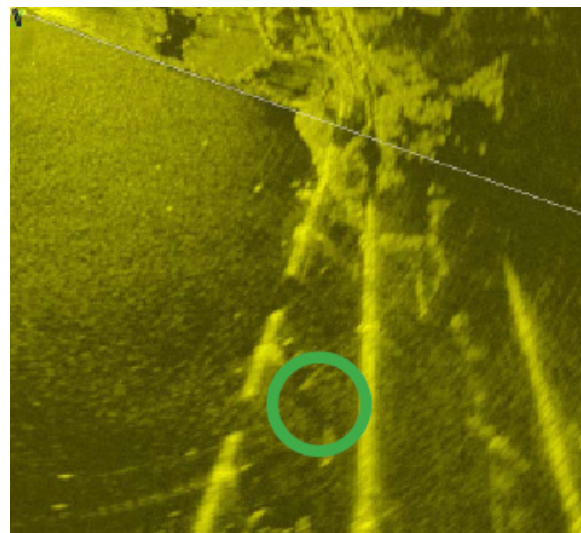


Figure 3b Time-lapse Replay (moving targets revealed by jerky repeated movement during playback; compare Fig. 3a)