

160° Advantage

The Sonic 2024 has a variable opening angle that is user selectable (on the fly) from 10° to 160°. All of the Sonic 2024's 256 beams are used, no matter what the opening angle is. The smaller opening angles are ideal for high resolution or object detection surveys as all 256 beams are compressed into a small opening angle.

On the other hand, by increasing the opening angle to 150° or 160° allows for the surveying of vertical surfaces, such as quays, breakwaters, dams and pilings without having to rotate the sonar head. The advantage is clearly evident in a recent survey of bridge abutments.

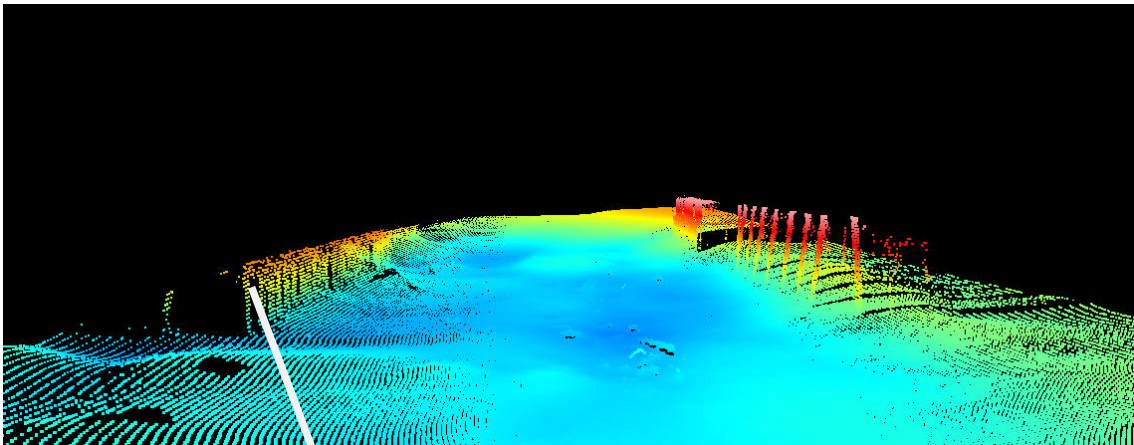


Figure 1: Opening angle set to 120° to mimic other flat array sonar limits

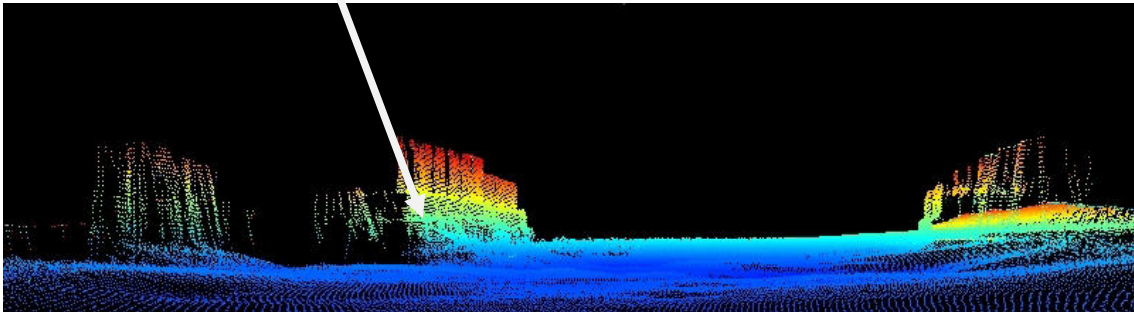


Figure 2: Coverage with an opening angle of 160°

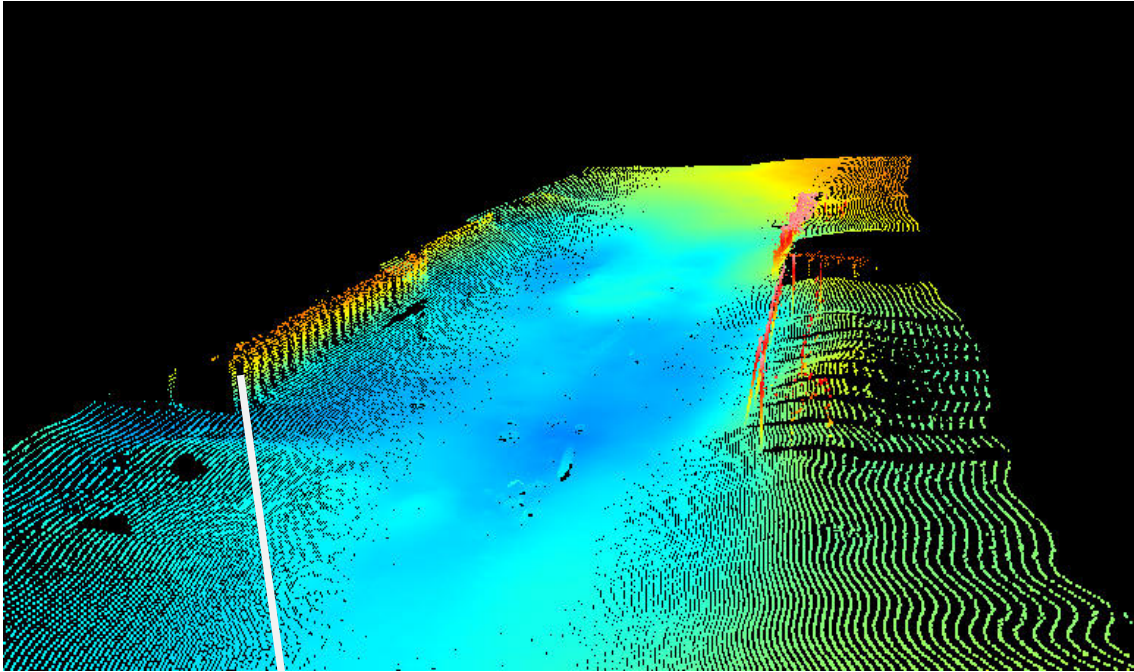


Figure 3: Opening angle set to 120°- normal for flat array MBES

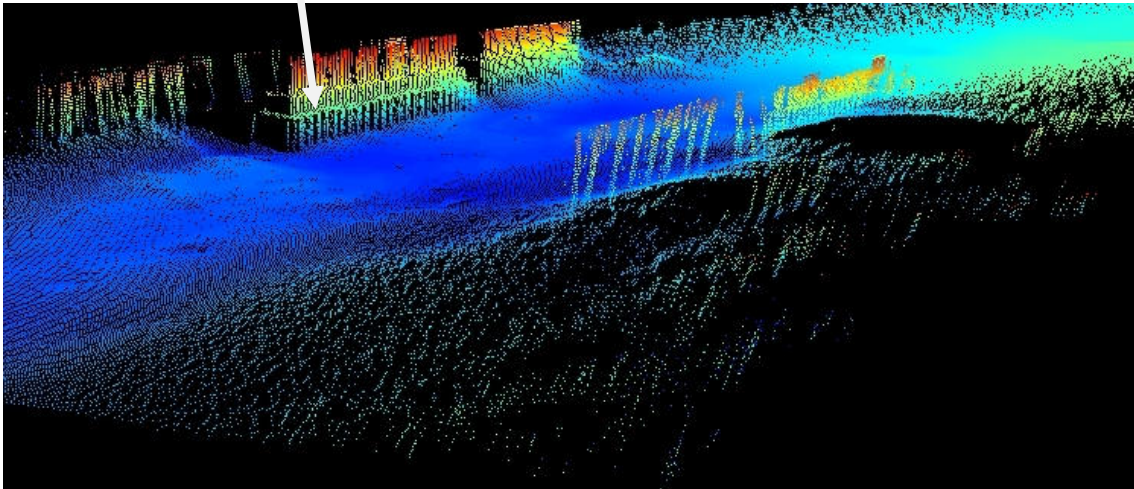


Figure 4: 160° Opening angle

Seen in profile, it becomes even more evident of the advantages of being able to change the opening angle to 160°

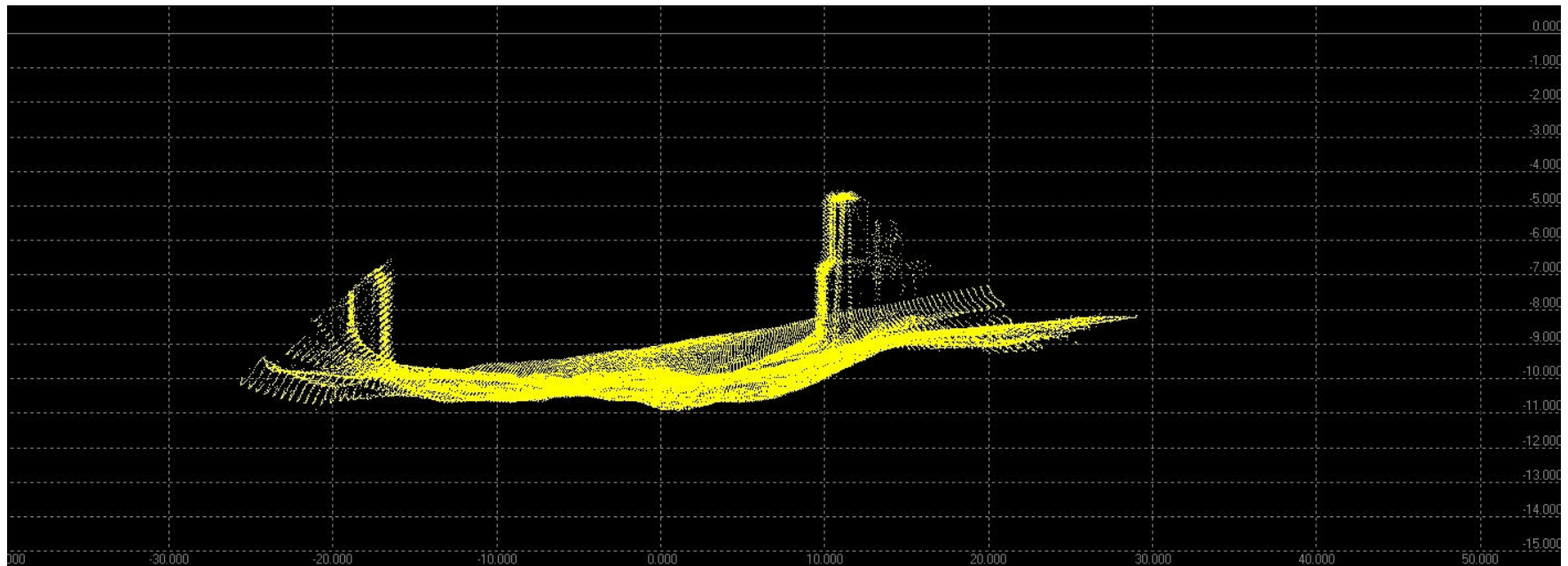


Figure 5: 120° Coverage, vertical scale on right in metres

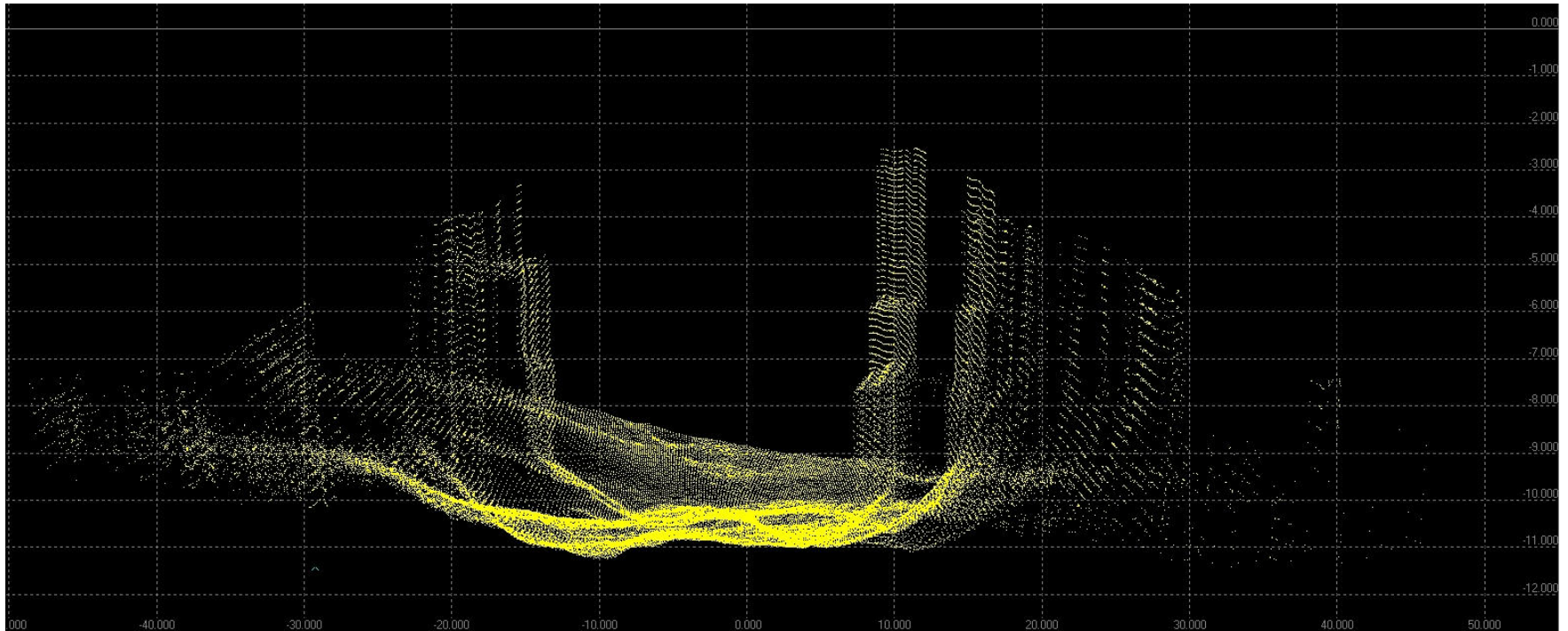


Figure 6: 160° Coverage, vertical scale on right in metres