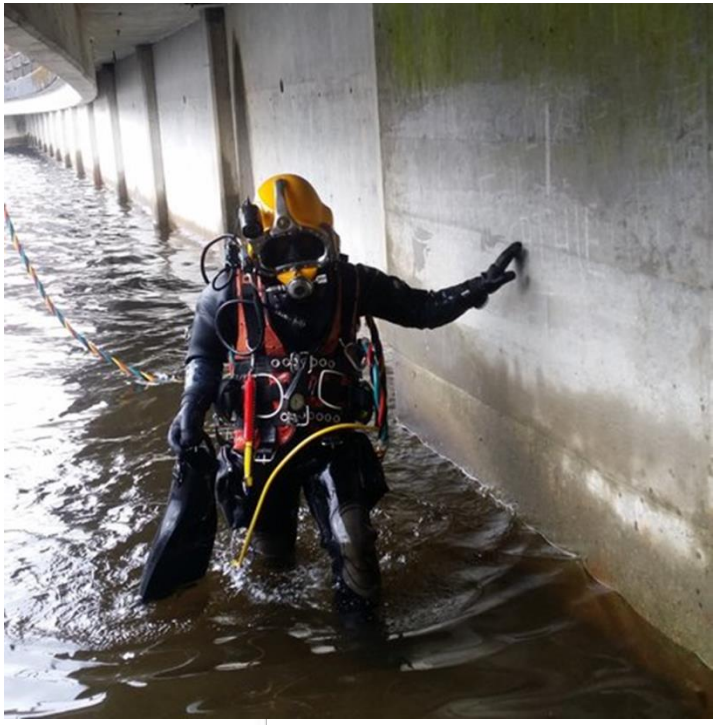
XAIS
Asset Management Solutions

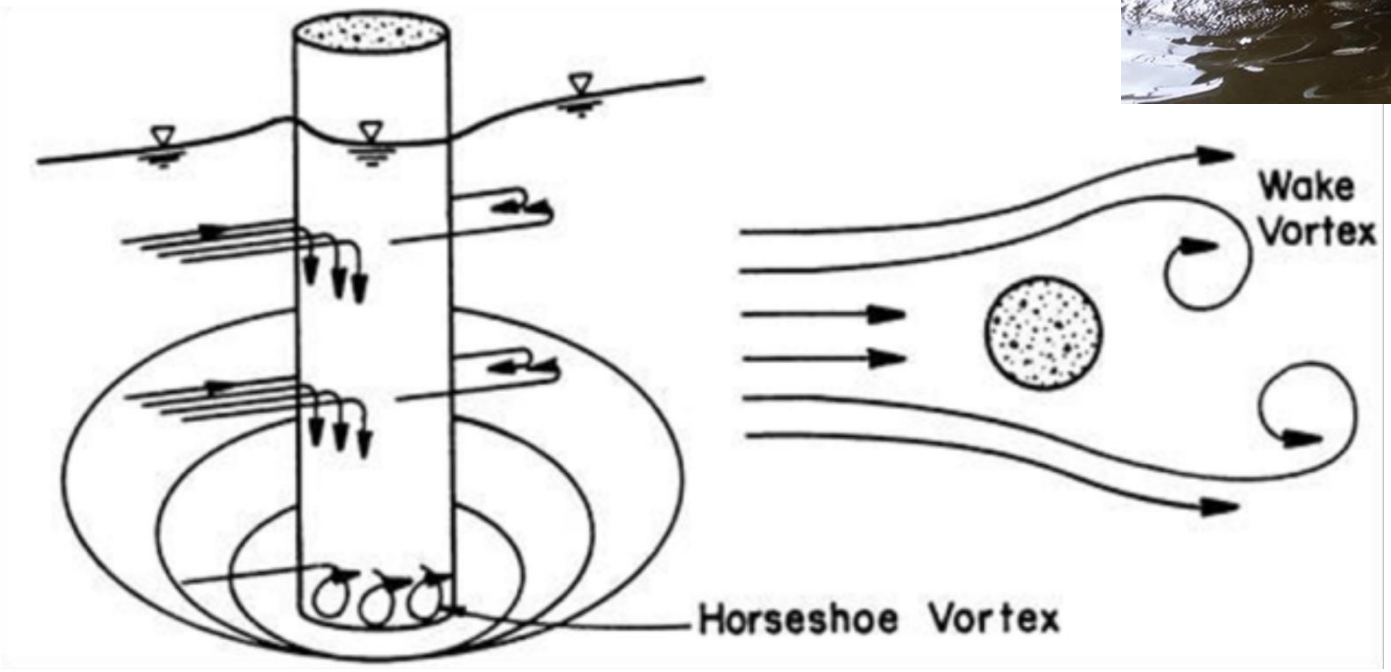
Developments in measuring SCOUR!

Ways to measure SCOUR

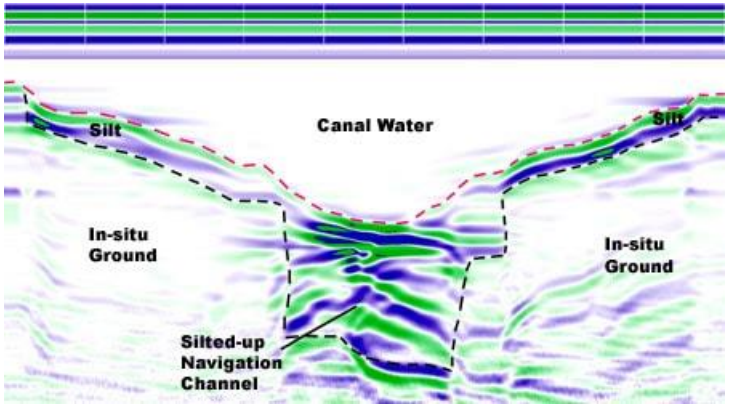
1. Traditional – Divers
2. Ground Penetrating Radar
3. Multi-Beam Echosounder and Side Scan Sonar
4. Acoustic Scanner

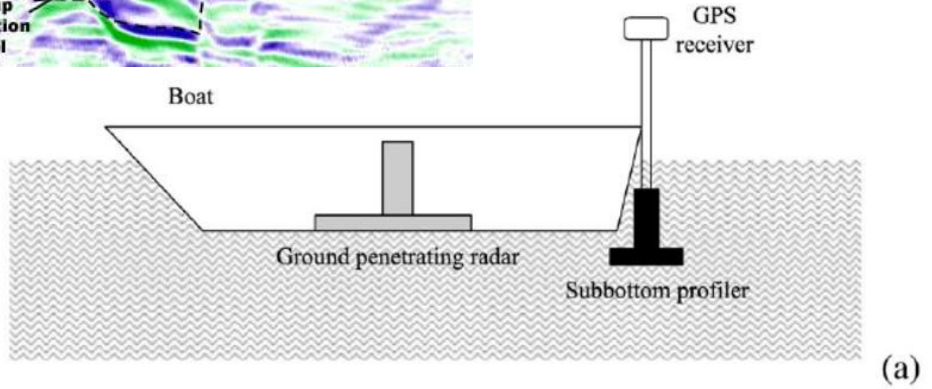
Traditional

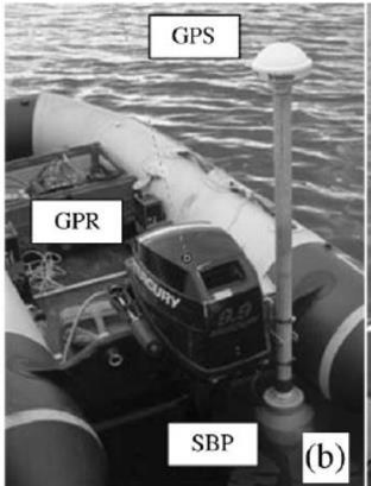


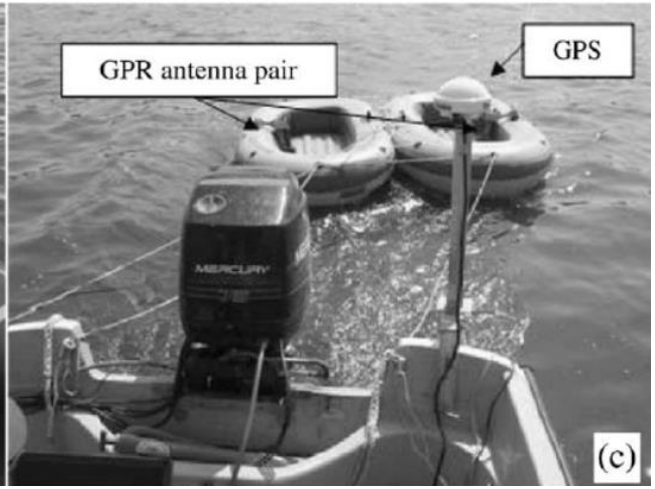


Ground Penetrating Radar (GPR) on Water







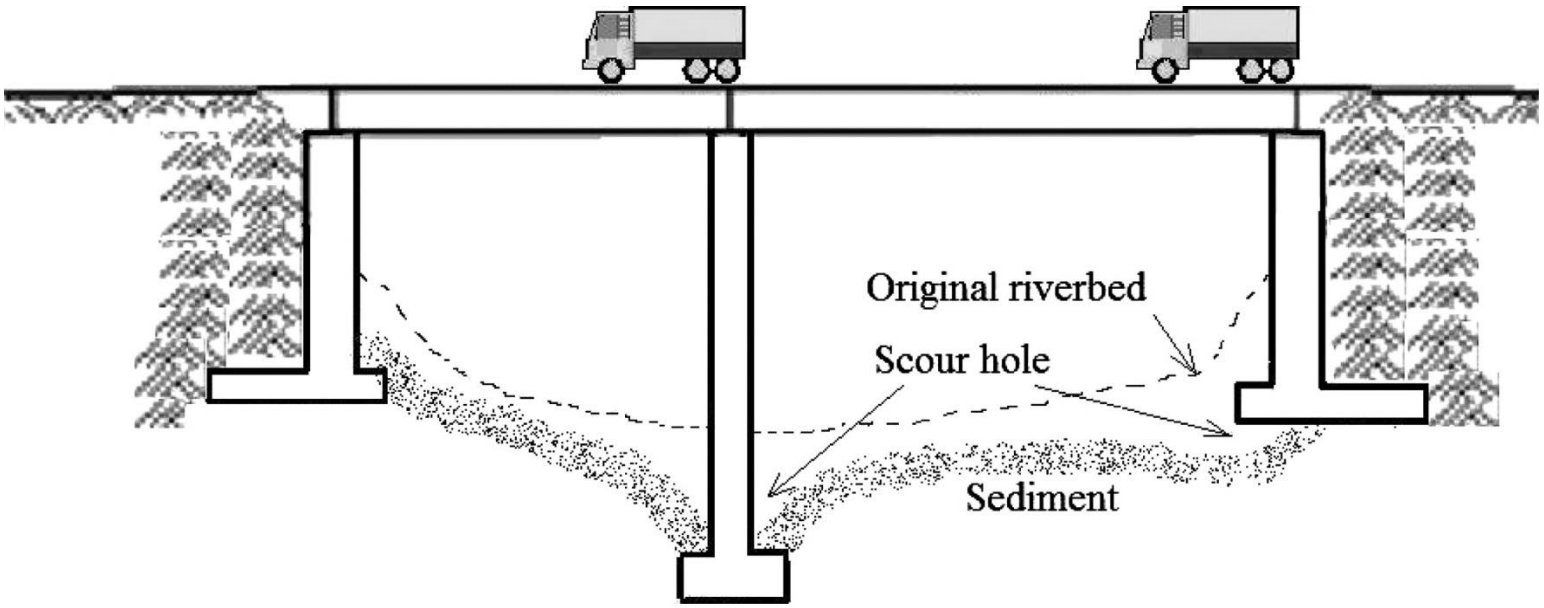


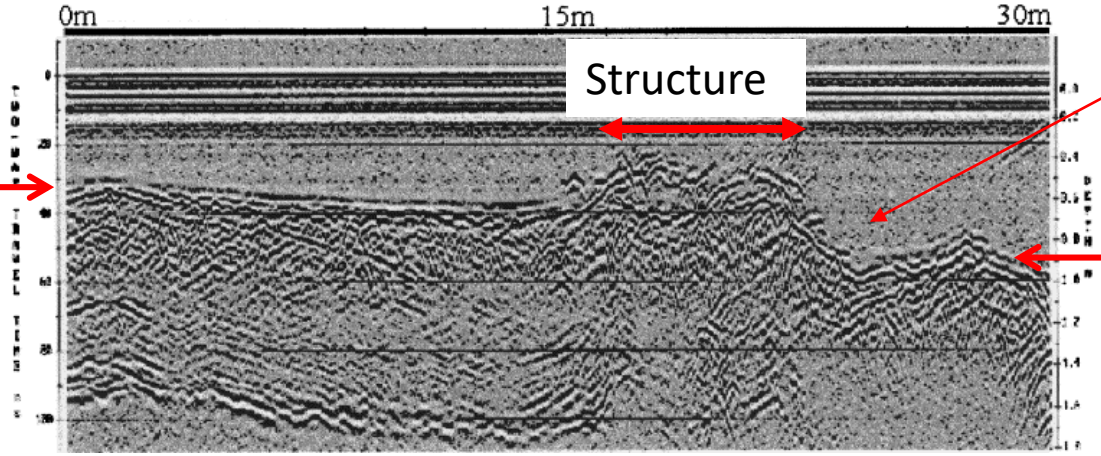
Ground Penetrating Radar (GPR) and Scour

GPR Can be run along al sides of a water-borne structure

A distinctive dip can be seen where the scour occurs

Ground Penetrating Radar (GPR) and Scour



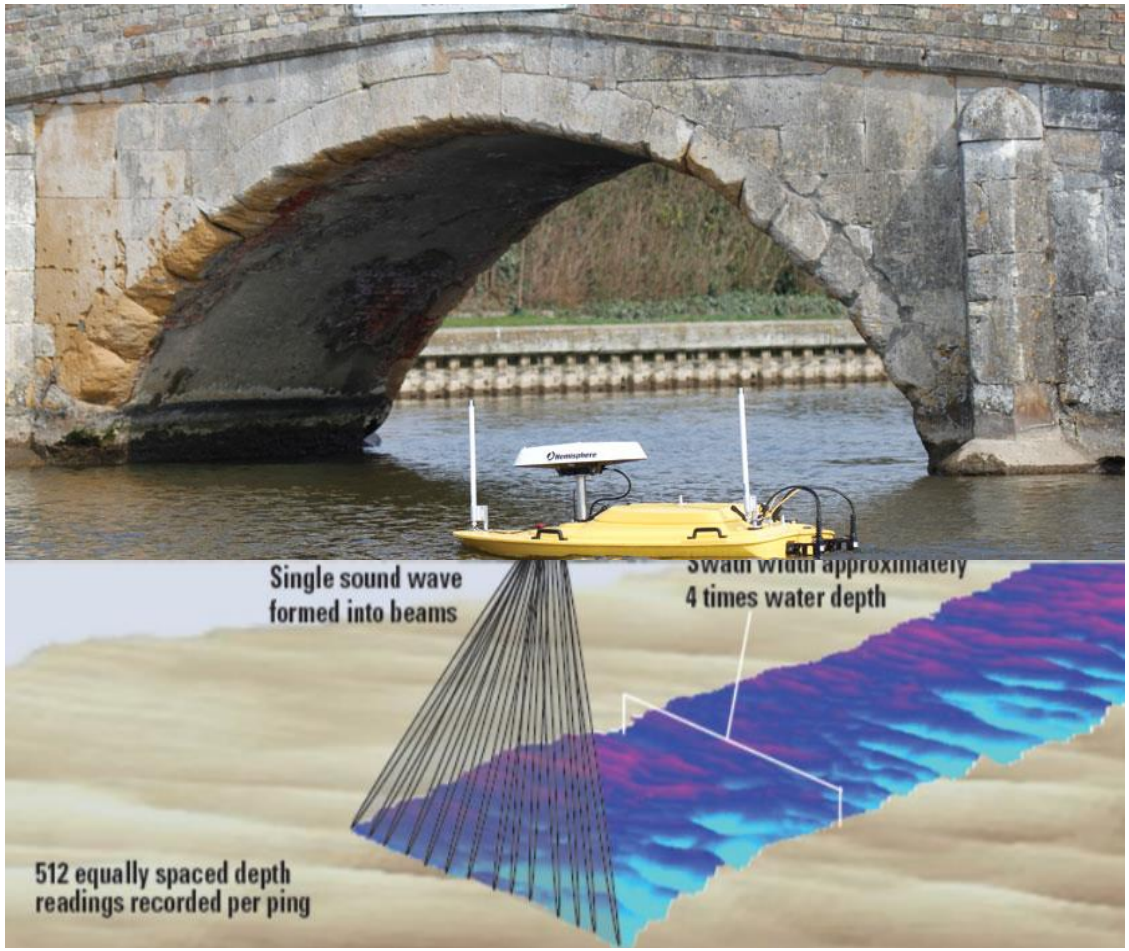


Upstream river bed level

Scour Hole

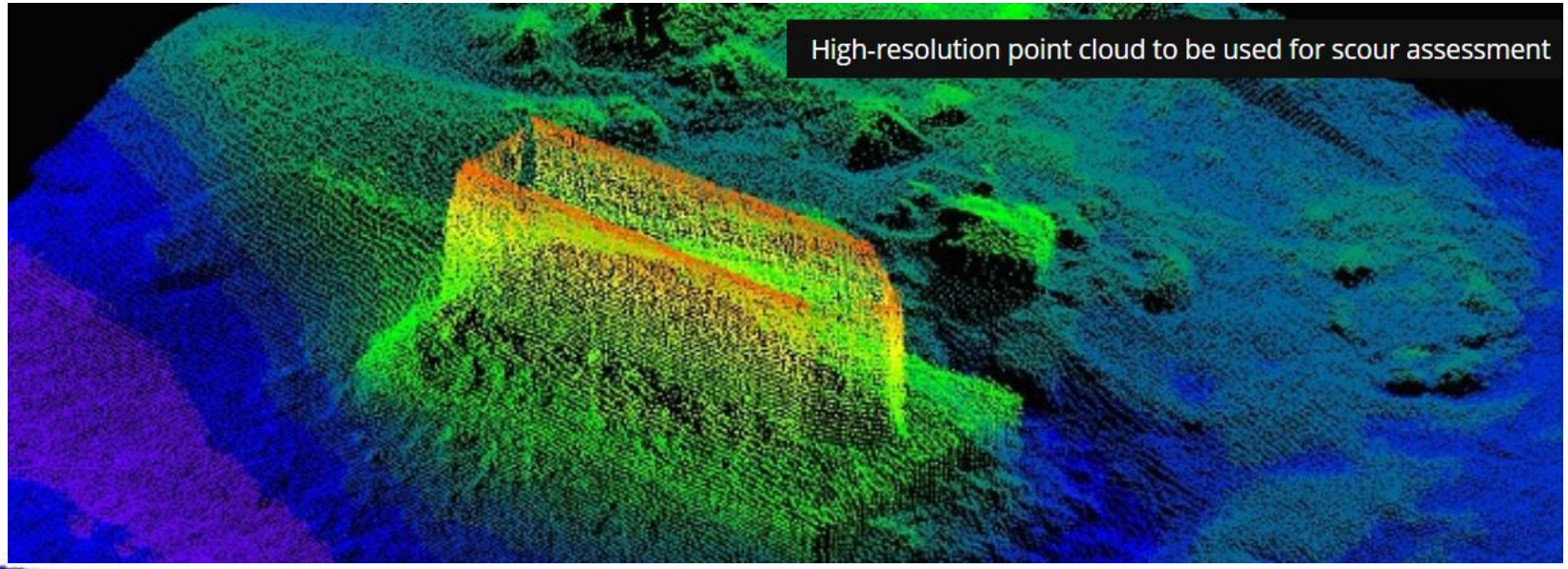
Down stream river bed level

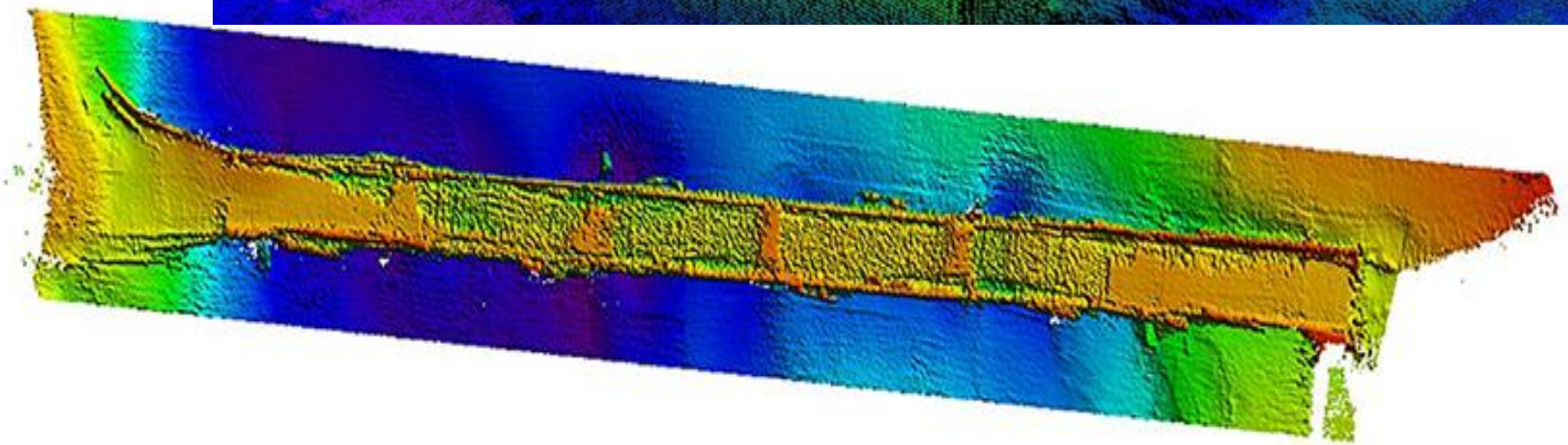
USV Surveys Using MBES (Multi-Beam Echo Sounder)



The Multi-Beam Echo Sounder beam width is typically four times the water depth. So a river of 8m depth could be surveyed with a swath foot print of 40m.

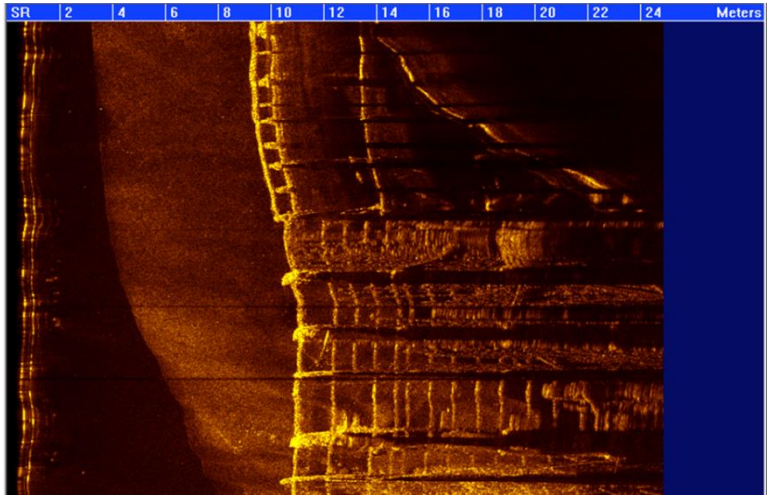
Scour and River / Canal Profiles & Cross Sections Using USV Mounted MBES (Multi-Bean Echo Sounder)



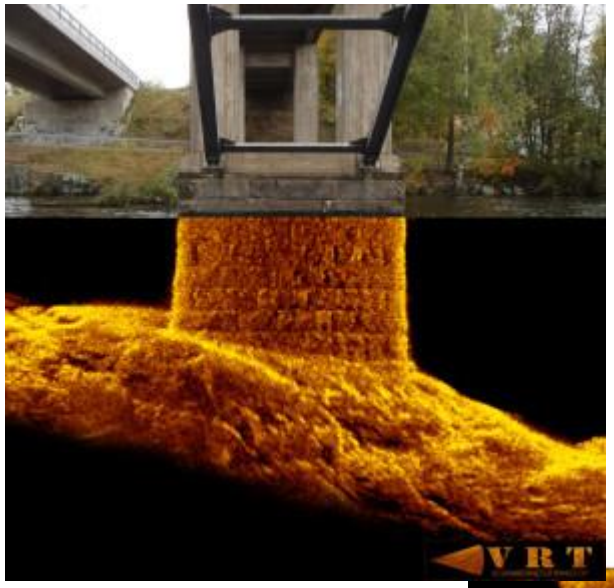


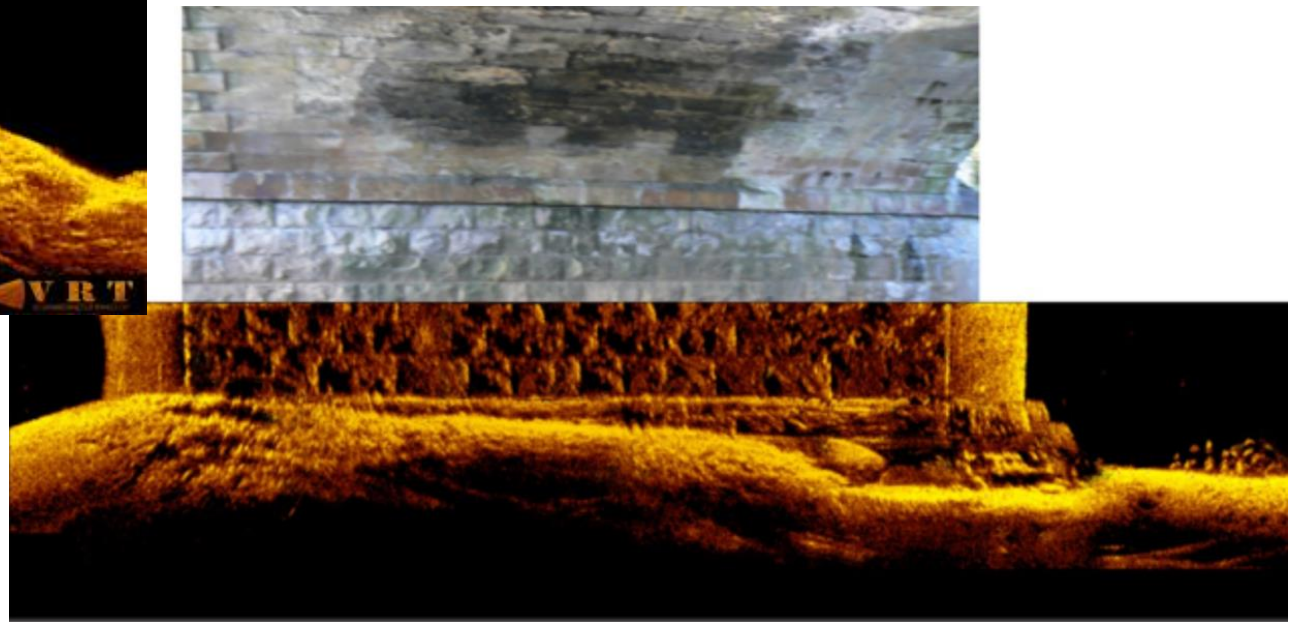
USV and SSS (Side Scan Sonar)

Can be used where it is Considered Too Dangerous for Conventional Survey Work



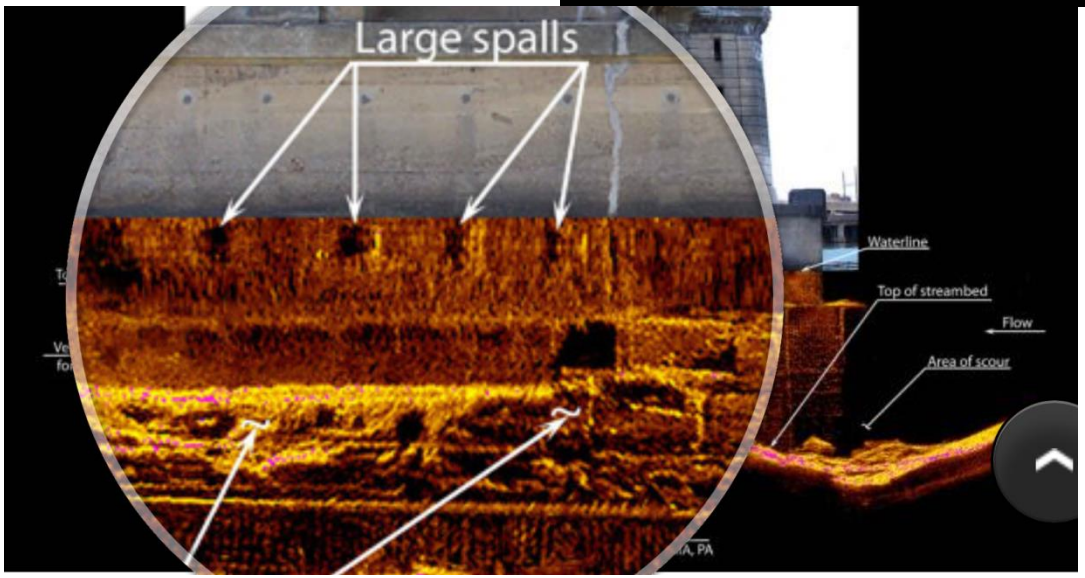
Effect of Horseshoe and Wake Vortex Using a Static Scanner





Static Scanning

Digital Data
Murky Water
No Problem



Static Scanning

River / Canal Cross Sections