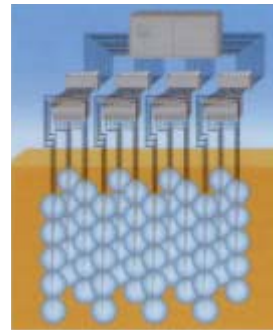


## Steel Sheet Structure Cellular (Embedded) Method

New Offshore Waste Disposal Site

This method developed by TOA is used for many projects. A water-stop wall made of steel sheets, which will be placed in the brine surrounding the waste, will be built around the outer perimeter of the construction site. It is absolutely critical that the water-stop wall is sealed tightly so that the seawater does not overflow and allow the polluted water to leak out. This is where our technology and know-how has been put to work.



## Ultra Multi-Permeation Grout Method

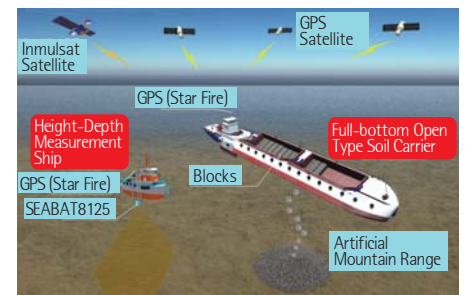
This is a new, but noteworthy technology to prevent soil from liquefaction. In this method, dozens to hundreds of nozzles are set three-dimensionally in the ground, and grout is automatically poured under the most suitable pressure and current volume based on pre-measured data.



## Re-main

With regard to the concrete structure in harbors, it is important to investigate, design and maintaining properly to protect them from salt erosion. Strategies developed by TOA include understanding concrete aging mechanism and mechanical countermeasures for repairs and maintenance. This includes diagnosis of conditions, judgment for necessary repairs and most suitable method for repair and maintenance.

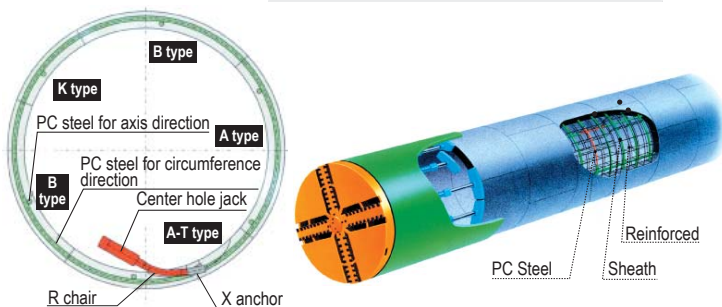
## Sea Hunter System



The Seahunter System developed by TOA is the first adoption in Japan of the StarFire System operated by the American firm Navcom Technology Inc. for correcting GPS measurement error. This system allows the calculation of level position to decimeter precision even without access to a GPS reference station, enabling the construction and operation of next-generation support systems that may be used deep underwater or far out to sea where development is forecast to increase in future.

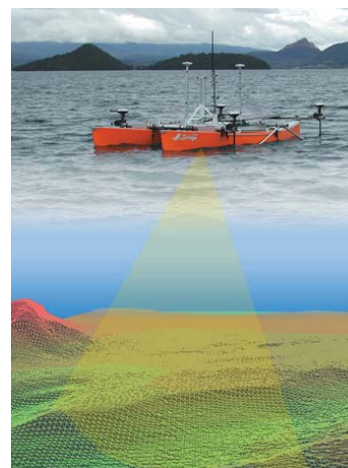
## Cross Section

## Pre-stressed & Pre-cast Concrete Segment Method



This is the method to form the segment ring of pre-cast concrete structure that is expected to contribute to the shield tunnel technology. The technology has great potentiality because of its vast application to the shield works such as construction of roads, subways and sewage system.

## Beluga System



This is our originally developed system for accurate and speedy measurement of the depth of ground level in water by effectively combining the latest measurement devices, including the narrow multi-beam depth measuring sonar, in order to acquire data in wide regions and the GPS.