

## Non Stationary-Spatial Transformation of Sound Fields (NSSTSF)

Non-stationary Spatial Transformation of Sound Fields (NS-STSF) uses Acoustic Holography to create a model of the sound field that allows you to view/investigate the sound field in planes parallel and normal to the measurement plane. This is not a new method but continuous evolution of the technique and its implementation have led to a time domain holography solution that allows you to map the radiated noise right down to a resolution of a few degrees of crank rotation.

The traditional limitations of holography, such as the edge effects encountered when measuring with an array that is smaller than the test object, have been eliminated with the introduction of the Statistically Optimised Near-field Acoustic Holography (SONAH) technique.

Other benefits of acoustic holography include the availability of all sound field descriptors in the half space in front of the test object and the ability to measure in one plane and calculate the complete noise map in another parallel plane. This is useful when measuring on hot and vibrating engines as you can measure at a safe distance and calculate the noise map in a plane nearer to the test object to improve resolution. Filters are available to allow you to look at the noise map in specific frequency bands or orders. Alternatively, you can view the sound field with chosen orders excluded.



*non-stationary STSF system*