Sonardyne
SOUND IN DEPTH

Technical Bulletin

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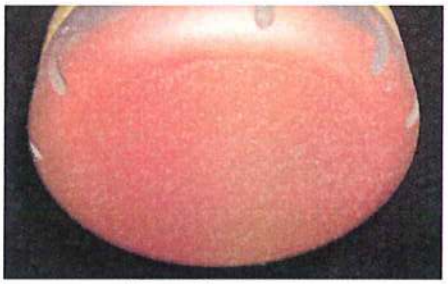
Subject: Cleaning USBL Transceiver Arrays.

1. Introduction

This Technical Bulletin details how to clean USBL transceiver arrays which are covered in marine growth or which have been oversprayed with anti-fouling coatings.

Typical Biofouling



Paint Overspray

'Hard' biofouling in particular can cause degradation in positioning performance, as it will alter the way in which acoustic waves propagate across the face of the array. Paint contamination of the front face of the array could possibly cause significant life reduction due to incompatibility between the chemical composition of the paint and the array face material. In both cases it is prudent to remove the unwanted materials as quickly as possible.

2. Removal

Firstly, wash down the transceiver and array front face with clean water and remove any loose biofouling or debris.

Use a plastic scraper to remove stubbornly attached marine life such as barnacles, keeping the motion of the scraper flat across the surface. The array face does not have to be perfectly smooth when the process is finished. Sometimes it is more prudent to leave small pieces of very well attached biofouling in-situ (e.g. the rim of a limpet shell) and so avoid the risk of damaging the array. DO NOT use any scraper which could deeply scratch the front face of the array.

When the worst of the debris has been removed, lightly hand sand the face with abrasive paper such as 'wet and dry' to remove the final signs of biofouling or paint coating. Use a grade equivalent to 240 grit and lots of clean water to keep the process wet. Ensure that the sanding is done evenly across the whole face of the array. To complete the cleaning process, lightly wipe the surface of the array using an alcohol wipe to remove any final oil or grease residues.

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Next, carefully examine the face for damage, such as small cracks which typically occur around the edges of where barnacles had been attached. If there are any defects deeper than 1mm or you have any doubt about damage to the array face, take a photo and send it in to Sonardyne support for further advice.

This would now be an ideal time to perform an array health check if you have a suitably equipped transceiver, of the following type designation or later issue:-

- 8021-000-01-C4
- 8021-000-02-A3
- 8021-000-04-A1
- 8023-000-01-C1
- 8023-000-01-C3

If you have any doubt if your transceiver can conduct array health checks please contact customer support for further advice.

Finally, just prior to immersion it is recommended that a wetting agent be applied to the face of the transceiver, the simplest wetting agent would be a weak solution of washing up liquid and water, about the same ratio as would be used for normal dish washing.

Array after paint removal

Should you require any further clarification please contact customer support on support@sonardyne.com or +44 1252 877600.

END