### LASER METROLOGY –
**Precision Measurement Enabling Augment Reality and Additive Manufacturing**

- Naval Surface Warfare Center
- Philadelphia Division
- Advanced Machinery Systems Integration Branch

<table>
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<tr>
<th>Laser Metrology enables the rapid, highly accurate (.001 inch) digital data capture of environments and parts</th>
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<td>Accurate data enables creation of digital models and data to create virtual environments (augmented reality), replace real world (virtual reality), and enable reverse engineering of existing components to create 3D models for Additive Manufacturing (AM)</td>
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<td>Single data set can support multiple applications: measurements for planning; 3D model creation; development of fly-through orientation videos; training aid visualizations</td>
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<td>Example: Accurate shipyard drydock scans for maintenance planning improved planning accuracy/work execution - estimated savings of &gt; $200k per drydock</td>
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- Poster, laptop with small monitor showing shipboard scans (Distro A), representative laser scanning equipment, functioning 3D goggles for visitor use, representative samples of additive manufacturing for planning and training applications.
- Two 6’x30” tables

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**Augmented Reality / Virtual Reality Tools**
**Additive Manufacturing Tools**

**Maintenance Planning**

**Shipyard Drydock Scan**

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**Scanning Tool**