



## WSTIAC Success Story

### WSTIAC DEVELOPS ON-THE-SPOT TECHNOLOGY SOLUTIONS TO MEET IMMEDIATE WARFIGHTER NEED

[<http://wstiac.alionsciece.com>]

<b>Customer:</b>	Naval Support Activity Crane, Indiana
<b>Challenge:</b>	<p>Special Operation Forces (SOF) requires in-theater on-the-spot Special Equipment Engineering and Analysis through the Mobile Technology and Repair Complex (MTRC) at forward deployed locations where they are stationed. The WSTIAC engineers, with the SOF MTRC units, provide mobile engineering and prototyping capability. WSTIAC engineers work directly with SOF Operators to solve reliability, availability and other technical problems on immediate SOF-specific mission critical equipment or needs. Recently, in support of a Village Stability Program, SOF needed to mount a MK44 Bushmaster in a defensive position onto a rooftop. The MK 44 is a 30mm chain gun that is normally vehicle mounted. Additionally, there were issues with not being able to assess the length of the MK44 battery charge; and worse, the loss of battery charge during fire fights.</p>
<b>Approach:</b>	<p>WSTIAC engineers fabricated a heavy weapons stand at their shop and transported it to the location via rotary wing. The MK44 was mounted on a rooftop and stabilized in the mount with sandbags. A gunner's shield was also installed to shield the gunner from small arms fire. To remedy the battery issue, WSTIAC engineered and mounted a solar panel array on a nearby rooftop to maintain the charge of the battery and installed a digital voltmeter to provide the operators with the ability to quickly inspect the voltage of the weapon system.</p>

<b>Value:</b>	The WSTIAC solution increases operator survivability and weapon system availability. By working with the SOF personnel directly in the field, the team developed innovative concepts and technologies that can be rapidly prototyped, evaluated and implemented in SOF operations, greatly reducing the time to develop and deploy the SOF-specific equipment needed to maintain an advantage.
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