**TITLE**

TEMPLATE

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Abstract content, which can include images, charts, etc……….

(Please single space content and double space between paragraphs)

***\* Remember, Abstracts are to be a minimum of 500 words, not to exceed two pages.***

(Insert Distribution Statement and OPSEC number in the Footer, if required)

**TITLE**

Example

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For the Up-and-Down method, the standard deviation will vary with the sample set. To generalize, a monograph was developed that provides confidence levels over a range of standard deviation values, with given combinations of number of shots (𝑁) and velocity spread (confidence interval) (see Figure 2*)*.

Here, we can see that higher confidence levels are associated with smaller standard deviation, larger 𝑁, and larger confidence interval delta.

**FIGURE 2. Confidence Levels as Function of Standard Deviation, *N*, and Confidence Intervals.**

We rearranged the statistical dissection of the V50 ballistic method and applied it to blast mat impact testing. To do this, we assumed that impact testing of ballistic mats follows a normal distribution for large samples but reapplied Student's *t* distribution for small N. Resulting confidence intervals were shown for a range of standard deviation for certain confidence levels. We interpreted the confidence intervals as velocity spreads, as we did for the ballistic specification treatment.

With certain assumptions, we can arrive at confidence intervals (velocity spreads) associated with the numbers of tests (N), just as in the V50 ballistic specification.

The methodology allows for any necessary adjustments in the assumptions, especially if testing bears out this result accordingly. This analysis allows us to progress in further development of a V50 style spec for qualifying blast mats using impact testing.