

## Structures Testing

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### ABSTRACT:

The main focus of research was performed on a scaled down version of the V-22 rotary blades. I had first spent an entire day at the crash testing facilities learning about the progress made over the past decades. Unfortunately, it takes several months to prepare a crash and a live demonstration was not available in the short time I was there. Instead, I conducted computer simulations and watched previous crash testing performed. During my stay, I was fortunate enough to visit Aberdeen Proving Grounds and spend time working with the same translator devices used soldiers in Afghanistan. I spent a majority of the time working with Dr. Mark Nixon in gathering data for a static wing model of the V-22 Osprey. Each blade was tested with weights to simulate a downward force vectors. Expected errors in gathering the data caused by the free play in the system and friction. Microsoft Excel helped in modeling the data to create a linear fit.

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