

# **An Investigation into Execution Delays During Naval Vessels' Availabilities**

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The U.S. Naval Shipyards' schedules revolve around the planning and execution of Naval vessel "availabilities," essential maintenance periods during the life of a vessel with the purpose of maintaining and improving the operational readiness and its fighting ability. Because of the high operational tempo for Naval vessels today, the four public Naval shipyards are continually challenged to complete depot-level availabilities on schedule. In order to support the completion of availabilities in a timely manner, this article presents a summary of execution delays (known as work stoppages), and an analysis on the impact of work stoppages during the execution phase. The work stoppage data are summarized to display possible trends based on the mean length and quantity of work stoppages across multiple availabilities, and possible predictors of availability lateness using a timed based metric are further investigated. The analysis of the data suggests that although no simple association exist between the quantity or length of work stoppage and the lateness of an availability, availabilities that finish on schedule tend to have had fewer work stoppages before the start of the availability as compared to the later finishing availabilities, signifying the importance of a complete and thoroughly supported availability plan. This study assists the Naval shipyard leadership in understanding a contributing factor to availability lateness, and can be applied to the shipyard maintenance community in which delays are experienced throughout a project.