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Subj: ANALYSIS EXECUTIVE SUMMARY

1. Purpose. The purpose of the Wargame conducted was to develop a process that captures the trade space and key variables in developing an LVC capability, which can be used to enable a partner nation's leadership to develop their own "M&S Acquisition Strategy". This memorandum provides the analysis background, framework, findings and key takeaways that resulted from the developed Wargame.

2. Analysis Background. Taiwan is in need of developing an effective strategy for investments into modeling and simulation tools and methods in order to modernize its forces to counter a growing Chinese threat, while substantially reducing live training of units. Maintenance of warfighting capabilities across the spectrum of joint force tasks is essential in the development of Taiwan's investment strategy for training. The team was tasked with developing a tool which would provide insight and tradeoffs into what LVC capability which could potentially meet the needs of Taiwan. The analysis was conducted in order to gather objective and subjective metrics to meet the intent of the game.

3. Analysis Purpose and Objectives. The primary objective of the analysis plan was to determine the relationship between combat effectiveness and the amount of investment needed across the LVC continuum. Secondly, the analysis plan sought to identify the elements that drove players' decision making as they progressed through turns of gameplay.

4. Analysis Methods. The analysis was conducted through the use of a Wargame, which included an analysis team recording real-time subjective feedback from players during and after the game, as well as software generated data responsive to player-input values. Players input numerical values into a Microsoft Excel spreadsheet which automatically created visual feedback in the form of a line chart, showing the combat effectiveness variations as investment numbers were manipulated. At the end of the turn-by-turn game, the workbook containing all player-input values was saved for analysis. During and immediately following the game, an analysis team recorded player commentary and visual reactions to scenario "injects". These injects were unforeseen enemy threat activities, or local natural disaster type information affecting budget levels; introduced by the Wargame facilitator designed to force players to consider consequences and adjust investment strategies. Finally, at the end of each turn, players were asked to record their personal strategy for short and long term investment priorities, and how any injected events affected their strategy.

5. Analysis findings/recommendations. Success in the Wargame was defined as sustained combat effectiveness between 60% and 80%. The most successful strategy was to invest heavily in virtual training capability early in the game, then invest in virtual training in order to capitalize on those early investments. Investing significantly in virtual capability resulted in Player 4 achieving 99% combat effectiveness by the end of Turn 5 as displayed in Figure 1. The analysis also found that when presented with injected enemy threat development information, players appropriately considered the development and adjusted their investment strategy to address the apparent

threat. It is recommended that the values utilized in the underlying model of this Wargame for relating spending levels to combat effectiveness levels be validated in order to gain a more scientific quantitative analysis

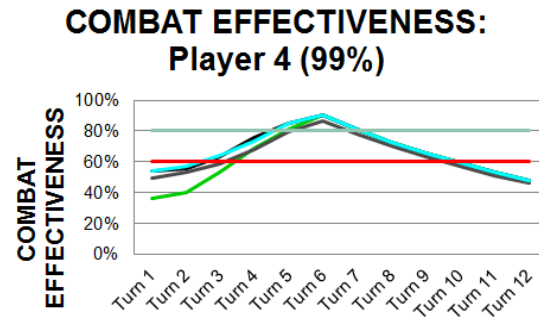
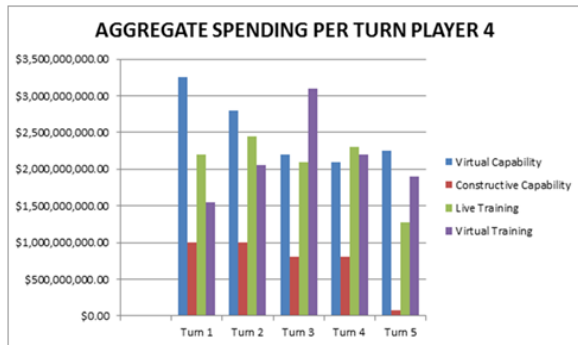


Figure 1. Player 4 aggregate spending per turn (left) and resulting combat effectiveness (right). Indicates significant early investing in virtual capability, followed by increased spending in virtual training, is the most effective strategy.