

EXECUTIVE SUMMARY

Purpose: *To ensure success in a future operating environment, it is critical to define the size and structure of Australian battlefield aviation requirements.* This summary condenses the 2017 Australian Aviation Wargame, and its results and conclusions.

Background: The strategic setting for the wargame is based on the Maritime War 2030 Scenario developed at the Naval Postgraduate School (NPS). The scenario takes place in the South China Sea amid increased tensions with China. The tactical setting for the wargame is the Chinese invasion of Natuna Besar. Kinetic action is followed by a typhoon that requires humanitarian assistance/disaster response in the Indonesian island of Banda Aceh.

Objectives: The aim of this analysis is to identify trends in aviation roles that would help influence a future Australian aviation force. Specific issues considered include: force structure requirements of manned and unmanned systems, operating environment analysis including naval synergies in a littoral setting, classification of possible classes, types and roles of assets, and future work regarding the expansion of the base wargame and scenario.

Methodology: The wargame was conducted by closed planning and open execution of four phases of action (Phases I-III: Response to Chinese invasion of Natuna Besar, Phase IV: HA/DR mission on Banda Aceh). Each phase consisted of orders and injects to stress aviation assets. The player's plan was then briefed and adjudicated against enemy actions. The end of the wargame included a seminar style discussion. Pre-and post-game surveys were also used to identify changes in the player's perspective due to wargame actions. Analysis was conducted using the surveys, discussion trends, and air tasking orders.

Results/Recommendations:

Major recommendations on the wargame's framework include:

- Use a cloud-based computer solution, reducing planners' overhead liability.
- Integrate audio and video recording systems to ensure sentiment, logic and planning dynamics are captured, further reducing the planning staff overhead.
- Develop scenario and play-test often in the weeks leading up to the wargame.
- Dedicate a planning staff to focus and invest significant time into wargame problem framing.

To increase game robustness, the following emerging trends were identified:

- UAS cloud and use of airborne drone motherships.
- Counter UAS (spectrum domination) and cyber defence.
- Tactical hub-and-spoke style re-supply processes using UAV drone assets.
- Organisational structure with integrated UAS assets.
- Benefits of modularity vs specificity in UAS employment, also IRT mission risk.
- Operating in a denied environment.

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