



WARRIORS, THINKERS AND TEACHER: WARFARE TACTICS INSTRUCTOR

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Introduction

The maritime domain is becoming increasingly complex; modern manufacturing techniques and rapid technological developments mean potential adversary nations have a wider access to cheap and highly capable weapons, platforms and systems. This is making it easier for countries to claim peer or near peer status where previously these capabilities may have been otherwise out of their reach. Noting this, there is an ongoing need for up-to-date effective tactics and supporting technical procedures to counter these rapidly emerging threats.



HMAS *Hobart*'s embarked MH-60R Seahawk helicopter fires flares off the coast of New South Wales. Photographer: LSIS Christopher Szumlanski.

The training construct for Principal Warfare Officers (PWOs) and Combat System Operators (CSOs) streams personnel broadly into either above water or below water warfare. At the time of graduation these personnel are arguably not yet specialists or subject matter experts (SMEs) within their field. They graduate with a general knowledge and skill set that is baselined to ensure they are able to safely conduct serialised exercises on the Australian station. Often, many warfighters are required through nature of manning constructs to be equally able to fight across all spheres of warfare, for example the single on-watch PWO in Anzac Class frigates. This hampers their ability to train and master their skills in a specific area. In the age of rapid technological advancements, the need for specialist contemporary knowledge in the tactical sphere is increasingly evident if we are to persist as a lethal force whose goal is to fight and win at sea.

What is a WTI?

The United States Navy (USN) Surface and Mine Warfighting Development Centre (SMWDC) was established in 2005 in recognition of a new era of competition in the maritime domain. Its mission statement captures this theme: to increase the lethality and tactical proficiency of the Surface Force across all domains. Part of this was the creation of the WTI program. A WTI is a uniformed member and specialised warfighter in one of four areas; Integrated Air and Missile Defence, Anti-Submarine/Surface Warfare, Amphibious Warfare, and Mine Warfare. The USN considers WTIs as

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an investment in the Navy's ability to fight and win in an era of great power competition and dynamic change.

SMWDC aims to develop WTIs that are warriors, thinkers and teachers who are also humble, credible and approachable. They are empowered to innovate, challenge and champion projects or concepts with the aim to "increase the lethality and tactical proficiency of the Surface Force across all domains" [1]. This enduring vision underpins the training and development of a WTI and the core values that they will espouse throughout their career. Currently the USN WTI system is offered to full-time and limited duties officers in the warfare career continuum.



The Principle Warfare Officer's Department on-board HMAS Newcastle as the ship and crew transit to the Middle East region in support of Operation MANITOU. Photographer: Leading Seaman Imagery Specialist Brenton Freind.

The WTI candidate is someone who has consolidated their warfare training at sea including either an operational deployment or major exercise. These candidates demonstrate a keen interest in becoming a deep tactical expert in one of the four realms mentioned above. They are driven to continually revise and improve tactical and technical procedures (TTPs) based on emerging intelligence reports and innovate means for the employment of existing capabilities. Most importantly, a WTI candidate is approachable, credible and humble holding a driving passion for mentoring and coaching those around them.

How the WTI Learns?

The WTI learning and teaching principles can be best described using concepts introduced by Steven Spear in his book *The High-Velocity Edge* [2]. Spear argues that high velocity learning is a means for developing a high performing organisation. Adoption of this principle means challenging already established processes and encouraging the revision of areas of weakness to improve them instead of following or mimicking what has already been done. It is based on the

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mastery of four pillars: building a system of “dynamic discovery” to facilitate fast organisational learning; “swarming and solving” problems to develop corporate knowledge; sharing this knowledge within the organisation; and leadership based on instilling the former three pillars in others.

Dynamic discovery looks at predicting outcomes that would eventuate from a particular process. These processes need not be perfected before undertaking this as the focus is not on the end product. Instead, dynamic discovery looks to identify early on areas of weakness and strength, thus providing an indication whether or not the process is understood vice if the outcome is good or bad.

The concept of swarming and solving problems is aimed at identifying potential issues early, addressing them before they spread and taking action so that they don't occur again. This process fosters greater problem-solving capacity and system familiarity in those involved. Sharing of information within an organisation is something that should be endemic in the technological and connected age we live in. However, the sharing of improved processes and procedures can sometimes remain with those that discovered them. Information sharing needs to extend beyond merely the solution, but also needs to include the context of the original problem, how it was discovered, why this resolution will work and how to rectify the original problem.

Every leader intrinsically understands at a core level of the importance of growing, developing and enabling the team that they are a part of. “Leaders must develop those for whom they are responsible so that the organisation's ability to be self-correcting, self-improving, and self-innovating is practised widely and consistently” [3]. While leaders efforts are typically focused on solving problems that could not be resolved at a lower level, they should not step in and solve the problem themselves. Leaders should, instead, coach the members involved to develop the best solution for the situation and remain accountable for practising and supporting these capabilities.

High velocity learning enhances natural curiosity, innovative thinking and critical problem solving skills in personnel across all ranks within an organisation. It sets a foundation for them to be involved with decision making and empowering them to contribute to their organisation. WTI candidates are expected to have an intimate and solid understanding of their own systems and capabilities, but also the characteristics of the battlespaces in which their forces operate and the opposing force tactics, platforms, sensors and weapons. Taking this premise of being “brilliant at the basics”, each trainee is expected to build on this knowledge with innovative and independent thought to enable high velocity learning.

WTI Program

There are three core attributes that distinguish the WTI program: empowering personnel at a junior level to make contributions and improvements to TTPs; the opportunity to grow expertise in key tactical areas identified by their organisation; and self-motivated ongoing professional development. There are programs similar to the USN WTI course currently run by the Royal Australian Air Force (RAAF), Royal Air Force and United States Air Force. This is offered across several key branches whom all operate within the tactical space namely: Fighter Pilots, Air Combat Officers, Intelligence Officers and recently Senior Airmen and Airwomen Surveillance Operators. These courses are administered at the same time across the different PQs, although not co-located during the theory phase. They do, however, come together to plan and execute the same missions and exercises throughout the course (such as the RAAF Diamond Series exercise).

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HMAS *Hobart* conducts a live-fire training exercise with the five-inch gun during Regional Presence Deployment 2020. Photographer: LSIS Christopher Szumlanski.

The WTI programs run by both the services deliberately select junior officers and senior non-commissioned officers as they have contemporary hands on experience in current operations. Although there is no replacement for experience, having the ability to develop a new generation of warfighters who are unencumbered by “the way things have always been” mentality is a significant tactical advantage. They are best placed to leverage off the trends of technology and have a fresh perspective on TTPs. This is evident in the RAAF as during each course their key tactical publications are reviewed and tested every two years, allowing them to maintain a tactical edge and increased lethality.

WTI and the RAN

The WTI program grows warriors, cultivates thinkers and develops teachers. The output is a warfighter who is not only a SME in a discrete field, but also someone who is equipped and trained to disseminate that information effectively. In the context of the RAN, this qualification would be complimentary to the training already provided to our warfighters. The WTI program would provide the Navy with a specialised capability that complements existing organisations who administer advanced training and tactics development. A WTI would provide flexibility and continual service to the units they are embarked in enhancing warfare training and ongoing professional development of those around them.

As a uniformed SME in their field, they would remain up-to-date with current naval operations, systems and capabilities. The ideal candidates for a RAN WTI program are junior officers or senior sailors with current operational and warfare experience. The course is envisaged to complement continuation and progression courses, such as PWO course. Selection for WTI course would be competitive aimed at volunteer candidates who are highly motivated and distinguished through their ingenuity and focus on the training and development their teams. It is important that WTI

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course is selective based on volunteer applications and is not requisite for postings or career progression. If a candidate does not pass the course it should not adversely affect their career.

The WTI program in the RAN would be a career opportunity empowering warfighters to solve complex and challenging problems. The course would generate a networked cadre who would act as champions for emboldening the Navy's tactical prowess, but most importantly they should be constantly challenging the status quo in the warfare community in order to grow with strength.

Authors:

Lieutenant Cleo Scarce and Lieutenant Colin Verheul posted to HMAS *Hobart* as the junior PWO and junior AWO respectively on completion of PWO Course in May 2019. LEUT Scarce joined the RAN in 2009 and LEUT Verheul joined the RAN in 2005. LEUT Verheul and LEUT Scarce completed the Aegis Combat Systems Officers course in Moorestown, USA, in 2019.

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