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## Faces of Battle: A Health Perspective

by  
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Two RECENT AUSTRALIAN BOOKS offer insights into the past, present and future nature of the human element in war. It is suggested that both books are highly relevant to ADF health staff, particularly with respect to understanding their role in providing health services in such circumstances.

### THE HUMAN FACE OF WARFARE

Following national service in the Rhodesian Army, Dr Michael Evans graduated in history and war studies from universities in the United Kingdom, Rhodesia, and Western Australia, before becoming a senior research fellow at the Land Warfare Centre at Duntroon. Co-editor Dr Alan Ryan served in the Australian Army Reserve from 1981 to 1994, before becoming senior lecturer in history, politics and law at the University of Notre Dame Australia via a Law/Arts degree from Melbourne University.

Their book *The Human Face of Warfare 1* contains essays from various Australian and overseas experts who presented various topics at an inaugural international conference held at the National Conference Centre in Canberra in March 1999.

The introduction by Roger Spiller sets the scene by referring to tensions between the 'technocentric' and 'human' conceptions of war; in particular, the belief that democratic societies are driven to technical military solutions in order to achieve 'near-blood less' wars, because they are too fragile to withstand any other than the most benign military action. Certainly, examples such as the Falklands, Grenada, the first Gulf War, Haiti, Panama, the Balkans and Somalia suggest that waging war in this manner is feasible. It is suggested, however, that these are outweighed by the larger number of civil wars and other conflicts since 1945 where the human element was pivotal. It also remains unclear which approach may ultimately prove more successful during current operations in Iraq and Yugoslavia. From a health perspective, it is suggested that the main implications of Spiller's thesis relate to the need for high standards of casualty care (in support of his premise) and to query whether military health services should be structured to manage large numbers of enemy casualties as well as their own.

The chapter by David Grossman, on the psychology and physiology of close combat, covers ground addressed 20 years ago by John Ellis in his *Sharp End of War.*, Grossman suggests that the physiological and psychological responses to close combat, combined with the need to overcome the innate resistance to killing other human beings, come at a price which manifests itself as PTSD. It is suggested, however, that his thesis is incomplete: not all people who are exposed to close combat (or home invasion, or other forms of civilian assault) get PTSD; furthermore many (perhaps even most) PTSD cases have not in fact been exposed to close combat. Grossman's view, therefore, seems somewhat superficial compared to Ben Shephard's *War of Nerves*; even without having 473 pages to develop his thesis.

Steven Tetlow discusses the incorporation of human factors into computer combat simulation, something most parents with teenage males and a home computer would be familiar. It is suggested, however, that the applicability of Tetlow's models to 'real-world' decision-making should be approached with considerable caution: getting shot playing 'Desert Storm' on an X-Box is perhaps not quite the same as the real thing, especially when it usually takes more than a dinky medical pack and a 'ripping band-aid' sound effect to return wounded SF grunts to full combat fitness.

Evans discusses two war heroes: Australia's Albert Jacka from WWI and the US's Audie Murphy from WWII. Apart from the opportunity to eulogise the significant wartime efforts of both men (and to mourn their unfortunate post-war lives), it is not entirely clear what Evans achieves, other than to suggest that there are rare individuals who, contrary to Grossman's thesis, actually function better in combat conditions than in peacetime.

Hugh Smith takes Spiller further in discussing the 'bearable cost of conflict', by suggesting that democratic societies have lost the willingness to sustain heavy casualties. He notes that the media, in particular, are much better at tracing the fortunes of an individual than to explain why his or her life should be risked. He also notes how the Revolution in Medical Military Affairs has led to lives being saved that otherwise would have been lost in previous conflicts, perhaps facilitating unrealistic expectations regarding casualty care in austere combat environments. Other factors include the nature of the national interests at stake, demographics (i.e. falling birth rates), and other socio-economic, racial, and gender considerations. He goes on to state that the use of PGMs and lack of reference to peacetime casualty rates supports a public belief that wars can be now fought and won with few casualties (on both sides).

It is suggested that Smith's thesis has been undergoing ongoing testing since the World Trade Centre attack on 11 September 2001; as such, time will tell. However, evidence from the mass aerial bombing attacks of WWII suggests that civilian populations- democratic and otherwise- can become inured to large scale civilian casualties. In such cases, the same may apply to their uniformed citizens (especially non-conscript ones). It is therefore suggested that Smith's thesis may be considered a contemporary and somewhat more sophisticated version of a view held prior to WWI, of war as a 'rite of passage' for nations and a way of 'hardening' their component societies. Subsequent events suggest that this premise remains somewhat flawed.

Peter Warfe, who is well known to AMMA members, discussed PTSD and lessons learned from the ADF's operations in Rwanda in 1995, and the Norwegian UN forces in Lebanon from 1978 to 1980. He provides a graphic description of the events surrounding the Kibeho massacre in April 1995, and how the ADF contingent's planning, presence, military discipline and compassion saved hundreds of lives, albeit at the cost of subsequent difficulties faced by some ex-contingent members since. In this, Evans refers to the terrible paradox of armed peacekeepers being unable to prevent the killing of unarmed civilians.

It is suggested that both Warfe and Evans are correct in stating that peacekeeping can be harder than unrestrained combat operations, but a key consideration remains the political and command decisions that exposed ADF personnel to such situations in the first place (i.e. replicating Spiller's and Smith's arguments): if something needs doing, it should be done properly, and it should be worth the cost in Australian lives. Although saving Rwandan lives was worthwhile, it is arguable whether the cost was more than it should have been because of UN-inspired constraints.

Warfare also refers to the need to identify those people most at risk of PTSD, for aggressive prevention programs, and for comprehensive follow-up. He notes that about 20% of the 311 ADF members who deployed to Rwanda indicated that they were suffering 'distress' but adds that this was not more than in a 'general Army sample'. Being a tri-service contingent, however, it would be interesting to know if the incidence of 'distress' (however defined) is/was higher within its various sub-components. It is suggested that higher rates of PTSD in the smaller sub-components compared to the larger ones (if present) has important implications for future deployed health units. It is also suggested that, notwithstanding the effort expended on the issues identified by Warfare in recent years, the evidence-based validity thereof remains unclear.

Paddy Griffith suggests that the 'empty battlefield' is likely to create more challenges for maintaining leadership and morale, in the context where a target seen is a target destroyed, generally by a weapon that in turn reveals itself as a target. He also repeats Spiller's and Smith's 'casualty-aversion' thesis in somewhat more direct terms, stating that one's soldiers have to be brutalised and tribalised in order to operate effectively. Political feasibility aside, however, comparison of the ADF with the armed forces of some of our regional neighbours suggests that it is doubtful whether 'brutalised' soldiers are in fact more effective in opposing purportedly 'less-

brutal' but better-trained opponents (however good the former may be at perpetrating atrocities on unarmed civilians).

Brigadier Jim Wallace writes on the effects of digitisation on command and control. He notes the potential for commanders to treat the battle as a computer game without reference to on-ground human factors (tying in rather nicely with Tetlow), and/or to delay decision-making in lieu of pursuing digitally produced (and therefore potentially flawed) 'certainty'. He also notes a USMC exercise where legal, medical, chaplaincy, and some logistic and planning functions were moved to a rear headquarters, in the belief that their advice could be made available to commanders via a computer-based 'reach back' process. The results were somewhat inconclusive, in that the legal officer and chaplain jealously guarded their access to the commander; certainly, it is suggested that the ADF's tendency to keep health staff officers at arm's length from their commanders has not benefited either party on the other hand, naval medical officers at sea frequently have no option but to interact with their commanders in precisely this manner.

Well-known historian and author David Horner writes on stress on higher commanders. His quote from World War II's Burma commander, Field Marshal William Slim, is worth repeating in full, given its applicability to broader contexts:

*"it is an extraordinary thing that you should meet so much opposition from allies. Allies, altogether; are really very extraordinary people. It is astonishing how obstinate they are, how parochially minded, how ridiculously sensitive to prestige and how wrapped up in obsolete political ideas. It is equally astonishing how they fail to see how broad-minded you are, how clear your picture is, how up-to-date you are and how co-operative and big-hearted you are... But let me tell you... that you are an ally too, and all allies look just the same. If you walk to the other side of the table, you will look just like that to the fellow sitting opposite."*

Eleanor Hancock writes on women as killers and killing women in a military context, noting how gender integration in the last 20 years has often paralleled the racial integration of the US forces 50 years ago.

Notwithstanding the advances in military gender relations in recent years, the media interest in Jessica Lynch during the recent operations in Iraq, notably at some expense to her mates who were killed or wounded in the same ambush, suggests that both the US military and society, in general, may have some way to go.

Jeremy Manton, Carlene Wilson and Helen Braithwaite reviewed the advances in-field training for battle over the last 20 years. Whilst sharing some of the limitations as the computer-based simulation training described by Tetlow, Manton et al demonstrated the effectiveness of modern field training. From a health perspective, however, it is unfortunate that the issue of casualty prevention was not specifically addressed. Certainly, the Australian Army's experience in recent years suggests that the preventable training-related non Battle Casualty (BCas) injury rate has far exceeded the number of real BCas encountered during actual combat operations in Somalia, East Timor and Iraq.

Despite the comments by Spiller, Smith and Griffiths, Evans concludes by stating that it is unlikely that the 21st century will see war being limited to bloodless hi-tech 'surgical' strikes on static targets. Future adversaries will take their military activities to the jungles and urban centres where information technology will be less efficient, and ground troops will have the advantage. To counter these forces, Western democracies need to rally both human and moral resources: computers and machines will not be enough. Subsequent events since 1999 suggest that Evans was right despite the foregoing inconsistencies, although he should perhaps have added mountains and deserts as well.

## **THE FACE OF NAVAL BATTLE**

Dr David Stevens joined the RAN in 1974 as an antisubmarine warfare officer and has been Director of the RAN Sea Power Centre since his retirement in 1994. He is the editor or author of several books on Australian naval

history and maritime strategy. Dr John Reeve is Senior Lecturer in Naval History at ADFA, following an extensive academic career in Melbourne, Cambridge, Yale, Hong Kong and Sydney universities.

Their book *The Face of Naval Battle* is the latest of a series containing essays based on the two-yearly King-Hall Naval History Conference, in this case held in Canberra in 2001. This, however, is the first to explore the human aspects of maritime warfare. Although sharing similarities with *The Human Face of Warfare*, *The Face of Naval Battle* sets out to address many of the same issues from a naval perspective.

As John Reeve sets the scene by outlining those aspects of maritime warfare that are different from land operations, his chapter is worth reviewing in detail. He describes the importance of people in naval warfare; not how they interact directly as enemies, but with their weapons systems and associated supporting infrastructure. In the sailing ship era, the Royal Navy consistently won battles with superior men in fewer numbers of inferior ships. Yet in 1916 at Jutland, the RN's overwhelming material advantages were negated by defects in organisation and training. In WWII, aggressive RN commanders were still able to win despite inferior equipment (albeit often at a high cost in ships and personnel).

Reeve then draws attention to the extensive literature on the human experience of land warfare, particularly compared to maritime operations. Recalling such experiences - on land or at sea - is initially constrained by operational security, while their subsequent recall is often delayed and/or blocked. There is also the difficulty of recalling the blizzard of sights, sounds and smells associated with a life-threatening emergency, perhaps accompanied by shock, fear and exhaustion, even before considering the human susceptibility to rationalise and re-order events when such accounts are written afterwards.

Reeve notes that there are three aspects of naval warfare that exacerbate these problems:

- Despite modern sensors, the action itself can literally be over 'in a flash', thereby not leaving much of an actual 'event' to recall. Even then, such events may have very few witnesses (in contrast to land warfare, virtually none who are non-combatant); of these many do not survive.
- Sailors generally do not enlist en masse for war as soldiers do; nor do they necessarily re-enter society en masse afterwards. Neither are they particularly well-known for being 'user-friendly' sources of contemporary history; if anything the 'Silent Service' ethos suggests otherwise.
- Finally, Robert Ballard's books on marine archaeology show why visiting naval battlegrounds entail somewhat more technological support than that required to do so ashore. Furthermore, surviving ships frequently do not outlive either the perils of the sea or the scrapper's torch. Even then, tangible links to the people who fought and died aboard them are typically conspicuous by their absence: apart from Nelson's uniform (at the National Maritime Museum at Greenwich), Victory's Trafalgar bloodstains are long-gone.

Reeve notes that technological advances over the last 500 years (in particular the last 150) now allow ships to fight each other rather than the people in them; to do so with progressively less regard to wind, weather or time of day; to destroy each other within seconds rather than over hours or days, and from dealing with two-dimensional threats on the sea surface to three-dimensional ones above and below.

Yet Reeve also notes that today's navies still reflect legacies from the age of sail, in ways that extend beyond sailors continuing to wear 19th century fancy-dress. Leadership and acceptance of risk have remained essential components to winning at sea, along with seamanship proficiency and the maintenance of morale. The factors that keep sailors operating their ships and weapons in desperate circumstances - confidence in their leadership, small group dynamics, training and tradition, discipline, courage and (it has to be said) the inability to run away - all remain as valid now as they did in Nelson's time. Furthermore, the tasks undertaken by ships in wartime - convoy escort, blockade and sea control - also remain unchanged, as has the nature of the sea itself. These enduring attributes manifest themselves as follows:

- The 'two worlds' of a warship in action (i.e. above and below the deck), each with their own benefits and dangers. Sailors in action on the upper deck may or may not prefer to remain there; those below deck may or may not prefer to see what is happening.
- Physical isolation from the enemy (in contrast to Grossman's comments regarding close combat), which facilitates both the ability to concentrate on the task at hand as an antidote to panic, and a fatalistic acceptance of either killing or being killed. An additional attribute is a fact that the tasks are frequently the same in peacetime and in war.
- Boredom and fatigue are a danger during any period of extended operations. In such circumstances, enhanced living conditions afloat and a positive living and working atmosphere aboard a warship derive from mutual respect generated by the performance of skilled and interdependent tasks. This means that ships develop their own personalities, created by their captains and their crews. Living in a space the size of a suburban living room with 30 other people that one has not chosen to live with for months on end makes this inevitable: the only option is whether the resulting 'atmosphere' is efficient - and therefore happy - or not.
- The penalty for failure for naval commanders is peremptory: a lost ship cannot be rallied like a broken infantry battalion. Other complications for naval commanders include managing both the weapons systems and the people who operate them (something air force commanders have in common); navigating the ship in confined waters while using her weapons systems (often simultaneously), balancing initiative with compliance with orders; balancing the relationships and needs of different ship types within a task group, and making rapid operational decisions whilst being mindful of interservice sensitivities. All rather a lot to ask of one individual.

Reeve also notes that naval casualties have their own hazards to confront. Ships may be destroyed instantaneously with no or few survivors; they can sink quickly with high survival rates (British destroyers in the Mediterranean during WWII were sunk within two minutes, yet half their crews often still survived), or they may allow orderly abandonment without any casualties at all. Survivors in the water are exposed to many new dangers from the sea itself, as well as the violence of the enemy.

Reeve states that all naval warfare is 'joint', given the fundamental interfaces of the littoral environment between land and sea, and its reinforcement by air power. Navies are essential in order to project combat power ashore and to evacuate defeated armies to safety; throughout its history, the RAN has done plenty of both. On the other hand, Evans and Ryan have not really considered joint operations, except to indicate a mindset that one service's war experiences- and the human elements thereof- apparently represent universal truth.

Reeve notes that submariners generally still live and work in a complex engineering environment with few compromises for their needs. Limited periscope access, the abrupt change from being the hunter to the hunted, and the low likelihood of survival in the event of accident or enemy action make for a somewhat demanding environment. Naval aviators generally have more in common with their land-based counterparts (at times perhaps more than their 'mullet' colleagues), but with additional challenges even in peacetime - per the RN Fleet Air Arm's WWII 'A25 Song'<sup>15</sup>:

*'They say in the Air Force that landings OK,  
If the pilot gets out and can still walk away, but in the Fleet Air Ann the prospect is grim,  
If the landings piss-poor and the pilot can't swim'.*

Reeve also compares the faces of naval, land and air battle. He states that, unlike soldiers, sailors tend not to be treated like beasts of burden; neither do they normally endure route marches or the effects of hunger and thirst. He might also have added that unlike soldiers, sailors are scarce and expensive assets, a situation exacerbated in the modern era by the increasing emphasis on highly advanced technical training (particularly for engineering and electrical sailors).

Furthermore, soldiers are mindful that the enemy has a human face: sailors think far more of the opposing ship or aircraft shooting at them, than of the people aboard who are pulling the triggers. Even when sailors are being

shot at, unlike soldiers they can usually do something useful about it. This means that (apart from submariners), most sailors generally do not suffer the same stress as (for example) soldiers under artillery bombardment.

Reeve also notes that ships are targets only with respect to their capabilities, not the ground (water?) they hold. This means that, while Army discipline is directed at soldiers holding ground while overcoming the instinct to flee danger, sailors- confined, busy, often having to either fight or die and having nowhere to run - have much less scope to panic or to break down. Reeve also notes that combat refusal among sailors is rare, and that 'Blighty' wounds often do not remove them from danger. Finally, because all sailors have an enemy that is far more pitiless than any human opponent, the level of understanding between navies - even in wartime - is sometimes better than with their own compatriot armies. It is, therefore, suggested that naval discipline is therefore substantially different to Army's - less rank-driven and far more amenable to expert opinion and advice - but remains none-the-less essential to ensuring not only success in action, but survival at sea in all circumstances.

The similarities between naval aviators and air force aircrew have been noted previously, but Reeve states that these are also shared to some extent with all other naval personnel. Like sailors, aircrew have to contend with an operational environment that is singularly unforgiving of error, even in peacetime. Airmen and sailors (in particular submariners) share the same interactions between people and their equipment, as well as a degree of detachment from the human face of the enemy. However, flying is not a way of life the way that being at sea is: aircrew measure flying hours, not days or weeks or years. While a sailor's ship becomes his or her home, aircrew do not have the same relationship with their aircraft. This means that, although sailors share similar swings from 'safe' to 'unsafe' environments as airmen, they tend to be less frequent, far less extreme, but of much longer duration. It is suggested this in turn means that sailors are far more reliant than either army or air force members on their unit's own resources for psychology support. This is typically provided as a leadership and management - i.e. command/divisional - function, generally with only limited support from ship's health staff.

Andrew Gordon discusses command at the task group or fleet level. He offers numerous examples of Nelson's 'blind eye' at Copenhagen being successfully applied to a variety of naval actions since 1801, where naval commanders would have been justified in not taking the risky yet decisive action that brought victory. As Admiral of the Fleet Lord Fisher stated over a century ago, 'Any damned fool can obey orders'.

It is suggested that this attribute is not the sole province of naval commanders: often being thousands of miles from definitive care and frequently lacking their own medical officer, medical sailors are specifically trained to provide patient care independently for extended periods with minimal supervision. This not only entails having a high level of technical skill but also a sober and self-disciplined appreciation of their limitations: while the errors of shore-based clinical 'cowboys' may be overcome with ready MO access and prompt evacuation, the seagoing context means such errors are more likely to prove disastrous. It is suggested that this attribute poses significant challenges for non- naval commanders of tri-service health contingents: it is the basis of why medical sailors are not simply 'assistants' to medical or nursing staff, and why trying to manage them as such is likely to disappoint all participants.

Gordon also notes that written doctrine is not a strong point for navies. As much of what navies do seems self-evident to naval personnel (even down to junior sailor level), documenting it often appears superfluous. Neither is it seen as beneficial to ensuring decisive results when it has been documented in the past, as seen by the initiative-robbing 18th century 'Fighting Instructions', or the Grand Fleet Battle Orders at Jutland. The downside is that navies are generally poor at explaining what they do to anyone else, a classic Australian example being the non- replacement of the carrier Melbourne in 1982.

On the health side, recent debates regarding post-deployment health screening and DNA testing may be cases in point - in order to get the job done, any tri-service health policy that is either superfluous or cannot be applied by naval health staff in mid-Pacific will take second place to any alternative that can be used in such circumstances. As something like 85-90% of naval personnel still receives their health care from RAN health staff, this also means that shore-based naval health facilities must conform to the ships that they support, whatever the requirements

of local defence Area Health Service SHOs. Although there is a need to accommodate the remaining 10-15% of naval personnel who receive their health care from non-naval sources, it is also suggested that the tail should not wag the dog.

Gordon also refers to the digitisation of command and control, albeit on different terms to Wallace. Gordon's concern relates to this technology either being used to improve collaboration and Adhoc task switching in order to enhance naval combat power or to enhance centralised control in ways that have failed at sea previously (notably Jutland). In this respect, it is suggested that land and maritime command at the operational level seems to be diverging, thereby posing rather a challenge for HQAST staff (not to mention the command and control of deployed ADF health units ashore and at sea).

Bruce Ellerman's presentation on the 1894 Sino-Japanese War offers several lessons on how not to fight a navy. The Chinese fleet was split into three locations, under the command and control of local Army commanders who failed to allow their naval forces to support each other; foreign technology was misused; officer training and leadership were poor, while logistic support was marred by corruption and incompetence. Apparently, the 'medical' services on one ship during the Yalu River action entailed a surgeon using his prussic acid atomiser to convert P1 and P2 casualties into P4s. The contrast with the British-built and trained Japanese Navy was both substantial and instrumental to their victory. Ellerman notes that over a century later (as perhaps its title suggests), the People's Liberation Army Navy (PLAN) may not have learned much since.

By way of contrast, Peter Overlack describes the efforts of Admiral Graf Spee's German East Asian Cruiser Squadron in 1914, which culminated in the detachment of the cruiser Emden to the Indian Ocean to triumph and tragedy, his own victory at Coronel off Chile, and the nemesis that followed off the Falklands. Left on his own half a world away from home, Spee demonstrated effective unified sea command despite a lack of orders from higher authority, acceptance of risk (and the reliance on luck to go with it), the leadership of men who for months on end knew that ultimately they were unlikely to survive, as well as tactical and technical skill in action. The difficulties of providing effective and efficient health services in such circumstances can only be imagined.

Russell Parkin provides an overview of sailors and seaborne soldiers on the defence of Australia from 1914 to 2001. He notes that the Australian Army has never performed its primary function of defending mainland Australia from invasion, instead of acting as an overseas expeditionary 'projectile' fired by the RAN and assorted allied navies. This commenced in 1914 with the Australian Naval and Military Expeditionary Force (ANMEF) operations in German New Guinea, and most recently continued in East Timor, Iraq and the Solomons. Parkin also notes quite correctly that the ADF's experience of these operations has been a cycle of inter-service engagement and detachment. Although current world events suggest that detachment is no longer an option, the imperative is to ensure that the difference between the services operating together efficiently and effectively is recognised and accepted (as opposed to them operating the same way, irrespective of whether a particular function is actually necessary in particular environments or not). It is suggested this particularly applies to the ADF's health services.

Like Peter Warfe, Mike Dowsett is also well-known to most AMMA members. He discusses the medical aspects of the Sydney-Emden action off Cocos Islands on 9 November 1914. Having sustained four killed and several wounded among her own crew in only two hours, Sydney's sickbay staff (two MOs and two medics, plus first aid parties) also dealt with Emden's casualties (134 KIA, 4 DOW, 61 WIA and 117 uninjured POWs) until they were landed in Colombo six days later. Emden's casualties did not reach Sydney until the day after the action, by which time most wounds were foul and stinking. Even with the help of Emden's surviving surgeon, treatment initially entailed working 40 hours straight in overcrowded, hot and humid conditions. After the casualties were landed, disinfecting the ship to prevent erysipelas in this pre-antibiotic era was rushed by the captain, and a day after sailing on 19 November the somewhat weary sickbay staff had yet another acute non-battle surgical case. Australia's WWII Pacific experience and subsequent conflicts since suggest that, notwithstanding the revolution in military medical affairs, things at sea have not changed.

David Hobbs discusses aircraft carriers. He notes how the British lead in naval aviation at the end of WWI was lost to the Americans and Japanese after the Royal Naval Air Service was amalgamated with the Royal Flying Corps to

form the Royal Air Force. He also notes how the restoration of the Fleet Air Arm in 1938 left the RN with obsolete ships, aircraft and doctrine when WWII commenced a year later. Noting that the RAN established its own Fleet Air Arm in 1948 and the Army its aviation corps in 1960 (the latter taking over virtually all land-based helo operations from 1990), it is unclear why the ADF's health services should be managed any differently from its aviation forces.

Guy Griffiths offers his own naval battle experiences as a seaman officer in WWII, Korea and Vietnam, stating that the man (and now, the woman) remains the most important factor in achieving operational effectiveness with the material capabilities available. Gordon Johnson does likewise from a sailor's perspective aboard the cruiser Hobart in the Dutch East Indies in early 1942, a time including convoy runs to doomed Singapore, the rescue of badly-injured survivors from the *Norah Moller*, and participation in the disastrous Battle of the Java Sea before escaping to Colombo. All in all, a torrid time as any ship in any navy has had without sustaining either hits or casualties. Johnson ascribes this to the skill of his Captain and the professional competence of (and confidence in) all ship's departments.

David Jones' review of ex-US submariner Machinist's Mate Thomas Parks in WWII describes how two Australian sailors saved the latter from three Australian soldiers in a pub in Perth. These two:

*"... said G'day to the soldiers and sort of ignored me but they sensed what was going on. Then as they were standing on either side of me ... the biggest of the two sailors put his arm around my shoulder and glaring at the soldiers said 'I don't give a\*\*\*\* what Navy we are in we are all sailors aren't we'. ... the soldiers decided that it might be better if they left ... Those two Aussie shimmers [non-submariners] saved me from a bad beating and maybe even saved my life. The Aussies escorted me all the way back to Fremantle right to Sailfish. They were on a corvette tied up right across the Swan River from us'.*

Peter Stanley discusses the late J.E. Macdonnell, who served in the RAN from 1934 to 1948 and wrote over 200 novels on the wartime RAN. While the RAN's war entailed much drudgery, loss and (it has to be said) bad luck, Macdonnell's books offers a realistic view of 'what might have been' based on imagination and his own experiences, even though he was never in a major Fleet action. This is well-demonstrated by his references to the medical aspects of wartime naval life in his novels.

Michael Whitby describes the diary of Commander Frank Layard DSO, DSC, RN, who commanded a Canadian escort group in the Atlantic from 1943 to 1945. The RCN had all the personnel and other problems that might be expected of a navy that had expanded from 3500 to over 90,000 men in less than four years. This meant that, unlike Australian sailors, the Canadians were not well-regarded by Royal Navy officers for their discipline, technical prowess or efficiency, as shown by excessive convoy losses by RCN escort groups.

Having had his ship sunk off North Africa, Layard was detailed off to get one such group in order; a task in which he succeeded whilst enjoying the confidence of both his RN superiors and the Canadians who served under him—rather an achievement. Ace U-boat killer Captain Frank Walker RN regarded him as 'a capable destroyer captain, who has shown marked coolness and good judgement under fire', yet Layard's diary revealed an indecisive self-doubting man lacking in confidence, who did not give himself due credit. What kept him going was a personal network of fellow officers, diversions ashore, and a devoted family. Sixty years later, the importance of all three has not changed.

Lee Corder outlines his personal experiences as CO HMAS Sydney (IV) in Gulf War I in 1990-2, and subsequently as CO HMAS Adelaide in 1997-9. He describes sea command as the last bastion of autocracy in a democratic society while noting that the Australian ethos means that all on board see themselves as equals with their captain—they expect him (or her) to be different, competent, genuine, fair and above the pack, but not aloof. His (generally still 'his') competence as a seaman, skills as a tactician, and how well he leads, motivates and inspires his people are all vital to both success and survival.

It has been said that there is a special divine Providence that looks after fools, drunks and sailors: the corollary, however, is that anything that does go wrong, does so totally. In this Corder recalled the damage to the USN



sister ships Stark and Samuel B. Roberts in the late 1980s, and the loss of Sydney (II) in action against Kormoran in 1941. Fatigue (never achieving more than two hours uninterrupted sleep for 47 days straight), combined with fear, boredom, lack of daylight and a cocktail of drugs (presumably the NAPS tablets) exacerbated his problems.

On returning from the Gulf War in April 1991, Sydney had a 57% crew change and workups to do all over again, before departing for the MEAO again the following August. A degree of weariness at the end of his time in command is therefore perhaps excusable. The high crew changeover rate and limited time available (compared for example with East Timor AUSBATT rotations) also demonstrate why - in the naval context at least - many health-related force preparation tasks such as vaccinations are still best performed en route to the AO.

Cordner's time as CO Adelaide followed a similar pattern, with the added distractions of commanding a task group (including Westralia during her fire in May 1998) not to mention his first mixed-gender ship. The importance of medical staff not wasting their CO's time (yet barging in when necessary) therefore seems rather self-evident.

David Stevens discusses perceptions of the enemy in a modern naval battle. He refers to John Keegan outlining the dichotomy between the 'fellowship of the sea' between sailors and the fact that modern war is fast-paced, deadly and decisive. Sailors in war go from one enemy to two or more, the worst of which still remains Monsarrat's 'Cruel Sea'. The worst RAN loss in WWI was the submarine AE1 with all hands, not by enemy action but by accident. The loss of Sydney (II) with all 645 hands in action is matched by the loss of Goorangi in 1940 by collision - in Port Philip Bay of all places - and Matafele in a cyclone off New Guinea in 1944, also with all hands. Following Armidale's sinking in 1942, most of her crew died not by enemy action but while awaiting rescue. Other examples include Nizam losing ten men to a freak wave in the Bight in 1945 and of course the accidents to Voyager in 1964, Stalwart in 1986, Otama in 1988 and Westralia in 1998. This means that damage control training is no different to any other battle drill: only the enemy varies.

Stevens also discusses naval attitudes to the Germans, the Italians and the Japanese, thereby covering similar ground to *Mark Johnson's Fighting the Enemy*. Although Australian sailors' attitudes towards the Germans were marred by the U-boat campaign in both world wars, in general they were respected as worthy and honourable adversaries. Perhaps surprisingly, relations with the Italian navy were similarly positive; however, Stevens characterised the Pacific war as displaying atrocious behaviour by all sides. Certainly, the rescue of Emden's survivors by Sydney (I) 1914 and the Espero's by Sydney (II) in 1940 (to name two of several examples) contrasts in rather stark terms with the massacre of Japanese survivors in the Bismarck Sea by Allied air forces in 1943. Yet the Japanese midget submariners who died in the raid on Sydney Harbour received full naval honours (although admittedly this may have been part of an attempt to alleviate the conditions of allied POWs). Even so, the increasing desperate measures taken by the Japanese as the war progressed rather stretched things for most sailors, especially after Australia was hit twice by kamikazes in October 1944 (13 KIA, 1 missing, 16 DOW, 61 WIA), and five times in January 1945 ( 28 KIA, 16 missing, 68 WIA). In both cases, the wounded were retained on board (rather like Emden's a board Sydney (I)) until Australia left the combat area several days later.

Stevens concludes with an excerpt written in 1940 by an Australian journalist who asked a Sydney (II) sailor how he felt in battle:

*" . . . it all sort of mixed up. Before the ship opens fire we are all keyed up. Sometimes you find yourself trembling, not with fear; but with the strain of waiting. Then when the action begins it all excitement. It just as if you're taking part in the most exciting bit of some sporting contest, a football match or a swimming race. If you know you're hitting the enemy there as feeling of elation, the same feeling as if you've kicked a goal in a football game. That wears off after a few minutes, particularly if your own ship isn't taking any punishment. Then you see the hits smacking into the other ship, with the flashes and the smoke and the glow of red -hot steel, and you begin to put yourself in the place of the other chap and try to think what you'd be feeling if you were at the other end. That when discipline and training come in handy. For a brief period you feel that you want to stop firing. The feeling passes. You know if you did the other chap would just belt hell out of you. So you keep belting away, but you do it mechanically. You don't even seem to think. The feeling of elation has gone but has been replaced by a sort of cold efficiency, and then you seem to do your best work..."*

It seems likely this sailor found out about the receiving end a year later.

Colin Wastell gives his perspective on war stress. He starts with Australia's aforementioned Kamikaze attacks, with her crew feeling - for months afterwards- that any enemy aircraft within 100 miles was specifically targeted at them, rather than the hundreds of US ships with whom they were operating. He also notes how PTSD symptoms became more frequent among WWII veterans 50 years later during the 'Australia Remembers' commemoration in 1995. He provides an overview of war stress since WWI and reviews the psychophysiology of traumatic stress, on comparable terms to Grossman but in somewhat better terms using what he termed 'catastrophic modelling'.

Wastell notes that the actions taken by a ship are directed at the survival of the ship and its crew. Naval history is replete of such examples. For example, the roles of damage control party members are distributed and yet clear: whether doing a hatch entry or fighting along a passageway, the team acts as a coherent group. On the other hand, personnel who are not well integrated into a ship company are more likely to pursue self-interested behaviours at the expense of others. It is suggested that this has important implications for PCRF members, in particular the need to integrate them with the rest of the ship's company.

Finally, Peter Jones outlines the face of the future naval battle. The digitisation of command and control means for example, that a weapon aboard one ship may be fired by a button pushed on another. Resource constraints make it harder to replace current capabilities; despite stealth technology, missile systems are becoming more effective at finding and destroying their targets. Increasing weapon ranges mean that the size of the battlespace will increase. The already rapid pace of naval warfare will further increase, thereby exacerbating problems with fatigue, especially as ship's company sizes get smaller.

From a medical perspective, smaller ships' companies mean less clinical work to do, while the increasing trend towards multiskilling of sailors (as seen even now with Anzac/ minehunter crews and submariners), means that future medical sailors will no longer be able to 'just be medics'. This in turn has implications for both tri-service medical training, and compliance with the Geneva Conventions.

Larger battlespaces also have implications for the ADF's health services, particularly if Navy-specific health needs are not well articulated. Although telemedicine and robotic surgery will have a role, it is suggested that it will be a very long time before either will be more reliable and/or cost-effective than having trained naval health personnel aboard ships in the combat zone, especially for mass casualties.

Neither should it be assumed that navies share the same health threats as armies, even in peacetime. For example, armies have to contend with a wide variety of public health threats from food, water, disease vectors, and other environmental threats, while navies do not to anything like the same extent because (some port visits excepted), their environment is largely self-contained. On the other hand, the complex engineering environment at sea requires more attention to occupational hygiene matters than on land (although in this respect air forces have similar concerns).

In conclusion, both books offer valuable insight into the past, present and future nature of the human element in war. It is suggested that this is highly relevant to all ADF health staff, particularly with respect to understanding their role in providing health services in such circumstances.

Although a return to three single-service stovepipes is neither feasible nor appropriate, both books suggest that a 'one-size-fits-all' approach to ADF health care in recent years has simply redistributed old inefficiencies without actually resolving them. Recent changes to the health requirements for naval reservists, the possible advent of an Army equivalent to the Directorate of Naval Health and the RAAF's Health Services Wing among other changes suggest that this has been recognised and accepted. The outcome of the Stevens review is therefore awaited with considerable interest.

Yet it seems odd that - Evans aside- less-technical land-based warfare proponents see an increasing technical orientation to future conflicts (driven by media and societal concerns regarding casualties), while the more technically driven maritime proponents emphasised the ongoing importance of the human element, where media and societal concerns regarding casualties simply seem not to be an issue.

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