

Book Review: Colonel John Boyd - The Man, His Contributions and Some Reflections for 'Personnel' Transformation

Coram, R., *Boyd: The Fighter Pilot who changed the Art of War* (New York: Back Bay Books, 2002).

Hammond, G. T., *The Mind of War: John Boyd and American Security* (Washington: Smithsonian Books, 2001).

John Boyd was a first-rate fighter pilot, engineer and scholar. The intellectual leader of the US Military Reform Movement, he sacrificed his career ('retired' as Colonel) for his beliefs and theories on manoeuvrability, Manoeuvre Warfare and OODA loop (Observe, Orient, Decide and Act), which have truly passed the test of time. His arduous journey to accomplish these provides fruitful reflections for the SAF's current transformational efforts.

Both books differ in their approaches. Coram's thick biography is filled with anecdotes of Boyd's growth, family and friends using extended sources provided by Boyd's friends - an engaging read by an author who was twice nominated for the Pulitzer Prize. In contrast, Professor Hammond at the Air War College presents an academically rigorous examination of the core of Boyd's thinking and its implications on US security.

Boyd was famous for his creativity, and infamous for his stubborn advances against the bureaucratic conformist system in order to advance his personal beliefs of 'what is right'. Boyd was motivated by competition, self-perfection and progress rather than fame. Boyd was arguably the greatest fighter pilot in American history. As an instructor, he defeated every pilot who challenged him, in less than forty seconds, to gain the accolade - Forty Seconds Boyd. He strived in competition but he contributed back with his 150-page manual 'Aerial Attack Study', which eventually became the official tactics manual for fighter pilots.

The quest for self-perfection propelled Boyd to take up a second degree in Industrial Engineering, which gave him the tools to unravel his next big discovery - the Energy Manoeuvrability (EM) theory. Armed with empirical evidence, he fought hard to re-design the F-15 from an 80,000-pound, swing-wing behemoth to a 40,000-pound fixed wing-manoeuving fighter, but with limited success. In a second counter-attack, Boyd finally pushed his ideas through into the F-16 and this remains one of the most manoeuvrable fighters ever designed. Through the process of fighting, this warrior-scientist also received the nickname of 'Mad Major' for being so mission-oriented, to the extent of 'burning a hole in a general's tie' who actually agreed with him.

However, Boyd's greatest contribution was to expound on Sun Tzu's ideas within the US military and ensured that the US military progressed in its strategic thought as much as it has in the technological field. An avid reader of military history and strategy, Boyd was deeply influenced by Sun Tzu amongst other military theorists and practitioners. He owned seven translations of the 'Art of War', which is the only military classic that Boyd did not have qualms about. The product is the OODA loop which is 'an updated and elaborated, albeit unintended, reinterpretation of Sun Tzu'. It consistently used 'Sun Tzu's ideas to overcome Clausewitz's overemphasis on achieving decisive battles by overcoming friction and the underemphasis on strategic manoeuvre'. That is why Berkowitz declared Boyd to be the American Sun Tzu.

His influence within the US military was far-reaching. Boyd did so via his legendary 6 to 8-hour briefings on 'Patterns of Conflict', delivered over 1,500 times, and where he would introduce ideas of Sun Tzu and its applications in battles of Napoleon and Genghis Khan. Boyd was uncompromising on the length of the briefing but 6 to 8 hours was exactly the time he needed to convince most of his audience of his and Sun Tzu's ideas. His audiences in the 1980s and 1990s included former Secretary of Defense and current Vice President Dick Cheney, Sam Nunn (former Chairman of the Senate Armed Services Committee), Newt Gingrich (former Speaker of the House whose 7-point plan on the Long War was circulated to the Joint Chiefs of Staff by Donald Rumsfeld on 30 Jan 06), General Al Gray [former Commandant, US Marine Corps (USMC)], and General Edward Myer (former Chief of Staff of the US Army).

In fact, there is evidence to believe that it was precisely Sun Tzu/Boyd's manoeuvre warfare that enabled the US to win Operation Desert Storm. Boyd had a direct role in its strategic planning. According to Coram, then Secretary of Defense Cheney invited Boyd to the Pentagon to discuss the strategic aspects. With Boyd as his background advisor and the support of Colin Powell (then-Chairman, Joint Chiefs of Staff), Cheney rejected General Schwarzkopf's initial plan for a head-to-head assault against the main Iraqi forces (classic attrition warfare) in favour of a left-hook manoeuvre led by the Marines. The result was 'a first rate instance of Sun Tzu's cheng/chi' and the surrender of 15 Iraqi divisions to 2 Marine divisions. After the victory, the US military spokesperson's words were 'we kind of got inside his decision [Boyd's OODA] cycle'. As General Krulak, Commandant of the USMC testified, 'Boyd was the architect of that victory'.

However, the influence of Boyd was uneven across the Services. The process was gradual and was facilitated by his associates (Acolytes) whom he insisted that they read and reread Sun Tzu. The Marines were most friendly to Boyd probably due to his relationships with Colonel Wyly (retired Vice President of USMC University) and former Commandant, General Al Gray. Boyd lectured several times a year at the Marine Basic School and thus trained a generation of Marines on Sun Tzu. Sun Tzu/Boyd's manoeuvre warfare can be found in FMFM-1, the USMC 'Warfighting' manual, which was conceived by General Gray who further instructed all Marines 'to read and reread' it. Gray and Captain Schmidt (drafter) later insisted that it was inspired by Sun Tzu (and hence Boyd) rather than Clausewitz. The US Army was less receptive to Boyd's ideas. Boyd only lectured at the Army War College and Fort Leavenworth a few times due to

the influence of Huba Wass de Czege (his Acolytes). In addition, the US Air Force least welcomed Boyd, albeit him lecturing at the Air War College for a short while. He also spoke a few times to the US Navy in Florida.

Nevertheless, Boyd's contributions and breakthroughs were substantial and were the results of years of hard work fighting against the civilian and military bureaucracy. Boyd struggled as the creator, chief strategist and spiritual leader of the Military Reform Movement, otherwise known as 'Genghis John'. Boyd had a choice - to be or to do? He can opt to be somebody - by keeping quiet on reforms and ride on his 'Forty Seconds Boyd' tactical flight success. However, Boyd chose the tougher road - to do important things and make a real contribution to society even if it was at the expense of career advancement. In the end, the US military still benefited from Boyd's EM theory, F-16s, OODA loop and Manoeuvre Warfare albeit with a considerable amount of havoc. Like his philosophy on manoeuvre warfare, Boyd had to manoeuvre his way through to effect change. He fought amazing battles against the Pentagon using media such as Time magazine over the Pentagon's overspending, and got Congress into a two-year debate over the Army's Bradley Fighting Vehicle using The Washington Post and The New York Times. His intention was clearly to highlight the potential business interests and/or conspiracies behind some defence projects. His methods may be unorthodox and impolite but his conscience was clear; he was right and he won.

It is interesting to note the fate of the military mavericks like Boyd. Despite his many ground-breaking contributions to the US military, Boyd was never really given due recognition. To an extent, then-British Prime Minister David Lloyd George's statement on Colonel Richard Meinertzhagen (WWI) still seem to ring true today across the militaries in the world: 'One of the most able and successful brains I met in any army. Needless to say, he never rose in the war above the rank of colonel.' The same can be said of strategists like Colonel T.E. Lawrence and Captain Liddell Hart in the UK. In the contemporary US military, Boyd is an example of a sidelined maverick; his associates, like Colonel Wyly, were forced into early retirement, because Boyd testified at a Congressional hearing that 'the Marine Corps still had senior officers with an old attrition-war mindset'. Boyd's final advice to the Congress in 1991 was that if nothing was changed, "it would inhibit young Marine officers from proposing crucial new ideas and the Marine Corps would be ruled by 'dinosaurs'". Is the military bureaucracy inevitably bound by Manichean politics (either blend into the specific strategic culture or 'get out')?

These are interesting observations and important questions for the SAF to ponder as it embarks upon its own transformation where change and creativity is not only necessary but also crucial. Perhaps Boyd has his own competitive attitude and aggressive personality to blame for not rising beyond the rank of Colonel. However, it might precisely be this personality that flourishes creativity and drives change. His contributions are far-reaching but his career advancement does not correspond with his legacy. This disparity between an individual officer's milestones and his/her career advancement will be a key issue militaries undergoing transformation will have to encounter and address.

The POINTER monograph on leadership suggests a Route of Contribution (ROC)-centric over a Route of Advancement (ROA)-centric culture. From this, a contribution-based criterion for military personnel's 'route of advancement' could be inferred and this plausible solution ensures that Boyd's career advancement will be assessed based on his contribution to the overall well-being of the US military and its transformation journey. In Singapore, civil-military relations, defence diplomacy, technological innovation and strategic aspects of war have taken on a new significance. The contribution-based criterion thus assesses the peacetime civil servant/scholar/diplomat-soldier, while the present performance assessment criteria rightly assesses the operational readiness/capabilities of the wartime warrior-soldier. With a triangulation of both criteria, therein lies the possibility of grooming future John Boyds for the SAF.

Besides, one also observes that creativity is his part-time job done at home, in the evenings and early mornings. One questions if Boyd might be as creative if he was in a full time Defense Advanced Research Project Agency job. Boyd reads a lot and his creativity comes in sparks. Based on this, perhaps the Future Systems Directorate (FSD) and SAF Centre for Military Experimentation might consider providing an environment for non-FSD officers to embark upon military experimentation and test ideas for transformation on a part-time/project basis. This potentially opens up the Pandora's box for military security and human resources; however, the contribution-based approach seems to simplify the latter problem at least [i.e. one is assessed based on his routine job (operational readiness) and also on his additional contributions to the SAF (military experimentation and any other contributions that benefits the organisation)].

In conclusion, based on Boyd's contributions, there is little wonder why he was the first Air Force pilot to be bestowed the Marine Corp insignia during burial - the highest honour a Marine can receive. Although he deserved more in his career, his contributions to the military are beyond what the highest honour can tangibly reflect. Boyd's life shows that everything is possible with hard work. Boyd had an IQ of only 90 but he got two degrees in Economics and Industrial Engineering. More importantly, his contributions to the US military and even the business community are more significant than many others who have higher qualifications or IQ. This is the power of self-motivation, the right attitude towards learning and the effect of constant reading. Both books adequately offer fruitful insights into these aspects of Boyd's life and his contributions to the US transformation. Therefore, they remain useful sources of reflection for the SAF's own transformation journey.

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