

Increasingly today, war is a wicked problem. It's hard to know when it's started; it's unclear who is the enemy; it's difficult to know if or when it's over.

On top of that no-one can be confident that the methodology employed hasn't actually made the situation worse.

1 INTELLIGENCE

In this situation, the provision of intelligence is even more important than in previous times.

1.1 Focus

People used to think of warfare as an activity between Nations to which they owed allegiance.

Now society has changed so that people view themselves more as members of a social community spread over the globe. The advertising industry call them "tribal" groups, to encompass both expatriate nationalities and those with shared cultures such as surfies or dance party ravers.

Whilst the conventional Military Intelligence focus on the assessment of geopolitical threats and the build-up of arms continues to be important, there is a new imperative to monitor existing, and detect emerging, groups willing to use force against us. The following ideas are to enable us to scan our environment continuously for local threats by viewing the domain of Intelligence as a single one so that procedures can be applied consistently, developed incrementally and adopted across Federal/State boundaries.

1.2 COLLECTING DATA

Data about an emerging threat from a relatively small group emerges later in the development cycle and therefore needs to be available faster, to reduce lag in event monitoring. This implies that it has been collected and evaluated in a standardised way, before being entered into an homogenous, cross agency intelligence data vault.

Data needs to be collected from a greater variety of sources, (newspapers, Diplomatic, Police etc) across a greater number of people in order to stand a chance of finding the threat.

Sources should include generators of all types, (human, IT, xxxINT or telemetric. The pollutants in a river mouth can provide as useful information as the location of Mr.Bad.

An independent **Data Collection authority** would collect raw data in real-time from various sources without favour, evaluate and classify it in a standard way before sharing it across Federal and State agencies. (And it may be easier to share this data with allies, as it isn't intelligence.)

Politicians need to be encouraged to compel agencies to use and update such an engine, at least at Federal levels but also across States. There seems little benefit in having data stored separately in AQIS, Customs, Police, ASTIC, ASIO, ONA, DSD or wherever.

1.3 ANALYSING DATA

Whilst the raw data is best collected centrally to ensure that nothing gets lost, analysis is best done by the agency responsible for providing an assessment because it relies on the accumulated

knowledge of an operator skilled in a particular domain. Improving this part of the Intelligence cycle implies improving the tools, training and procedures used by agencies, and this improvement can be organised by a central agency.

Different agencies benefit from their own analytical engines and expert intelligence officers for comprehensive pattern analysis in the huge data vault, which requires number crunching power and time.

1.4 INTELLIGENCE PROCESS QUALITY AUTHORITY

An independent Intelligence Process Quality Authority focuses the development and improvement of procedures, processes and infrastructure across the domain.

1.4.1 TOOLS

When viewed as a data pattern matching exercise, tool for Intelligence work are the same as database tools for other applications. The Authority would collect and apply research carried out around the world into subjects such as the optimisation of databases structures, methods of inputting data, taxonomies or definitions (eg incomplete data,) and so on. It would be able for example, to test whether the ubiquity of relational data schemas (as opposed say to network based ones,) affects the type of inferences drawn from them.

As fundamental research into parameters of data, such as decay rates or probability assignments depend to a certain extent on their context, this agency would conduct its own investigations

into them. This would improve the yield of probabilistic scenarios to aid intelligence officers.

Predictive analytical techniques like pattern matching are investigated routinely in academic circles: the Authority is in a position to provide valuable feedback through post-operative analytical techniques like functional decomposition.

1.4.2 TRAINING

Whilst training does exist in a variety of places, a federal/State endorsed National Intelligence Training programme mandatory for all Australian Intelligence Officer Positions in all Agencies would boost the profile and capability of Intelligence Officers. This is like requiring a nationally recognised medical degree from doctors before they join an "agency".

How often is the intelligence prepared, and then ignored? A new programme must be developed to teach managers how to use Intelligence Officers and how to comprehend Intelligence assessments operationally. Agency managers currently do not display a common understanding of how to incorporate assessments into their daily plans, (and some display less than that.)

1.4.3 PROCEDURES

In order to gather the same information from different agencies and get the same - or at least consistent - predictions back from other agencies, a systematic way to define and measure Agency procedures is first needed. The Authority would develop an Intelligence Capability Maturity Model (cf Carnegie Mellon University SEL,) to enable this.

Similarly, whilst we can be pretty sure that people will outperform machines in this task for a long time, the Authority can capture the skill/knowledge of expert intelligence officers using Knowledge Management tools. Not being restricted to one Agency means that it benefits from a wider source of knowledge leading to more profound insights.

As a result of the above, the Authority can introduce processes to evaluate continuously, & self-evaluate dynamically, in real-time, analytical techniques across agencies. In this way the principles of Total Quality Management and Continuous Improvement can be introduced in a practical way.

1.5 INTELLIGENCE OMBUDSMAN

The tools and organisation outlined above are more than ECHELON and carry the grave risk of misuse and repression. *In all but 3 of the 13 countries I've lived in, (my parents were diplomats,) during the last 60 years, the machinery of State has been garnered by revolution or invasion and used against it citizens.*

Laws passed in different countries in response to the threat of terrorism or "asymmetric warfare" have lessened confidence that authorities are capable of protecting their citizens. Whilst lawyers may argue about data privacy, or whether to collect data at all, of more importance to me is to ensure traceability of access and the existence of mechanisms to correct mistakes and redress consequences in a timely way.

Clearly, my belief is that it is necessary to collect information some of which is about innocent people in order to stand a chance of stopping

would-be terrorists before the Big Bang. It is also my experience that there will be a case where this is misused or inaccurate or even systematically used to control ordinary citizens.

Therefore, advocating the above requires with it the creation of an independent **Intelligence Ombudsman** to trace accesses and employ mechanisms to correct mistakes and redress consequences in a timely way. The Ombudsman has the power to investigate citizen's and organisation's complaints about the misuse of private information, the correctness of information about themselves, as well as cases of ignored intelligence.

The Ombudsman develops and uses audit procedures and processes, including CMM type maturity audits, to verify the operation and continuous improvement of the State Intelligence apparatus. This information could be published, but I can imagine those in the intelligence community having the accountability heebie-jeebies about that suggestion.

2 PRESENTATION, IMAGE & RECRUITMENT

PIR. Its not just PR.

The *a priori* view of defence as eliminating the causes of hostility as much as opposing the engagement of them, is more difficult to promote. The application of System Dynamics to the subject of conflict has made the activities leading to conflict risk reduction more obvious and more obviously achievable. The ADF has long recognised the importance of stabilising and rebuilding societies, disrupted by warfare or other disaster, in order to promote peace.

This is one aspect of ADF work that is supported by the community without much discussion.

This is one aspect of ADF work that resonates with the younger part of our community.

In order to spread this message and counter the adverse criticism of people ranging from the complacent, (and therefore preferring to spend taxpayer money on other items,) or who view defence as the embodiment of unnecessary violence, the ADF could sponsor a Playstation model of conflict based on system dynamic theories. Various factional and fractional situations could be modelled, and the choice of when and how to make ADF intervene would be one of the factors to consider.

Much of ADF work is remote from the experience of modern youth. Finding points of contact where young adults experience ADF reality, for example by running 4WD courses for L drivers or pioneer camps for Scouts, is a valuable way to generate goodwill.

2.1 SAFETY STABILITY SECURITY FORCE

Take the idea of the 1st Mentoring and Reconstruction Task Force to its logical conclusion.

Apart from fighting skills, the ADF has developed the skills of a first response agency to disasters. Even people who oppose military actions recognise and are proud of these achievements, apparently ignorant of the implicit irony: that the achievements are often only possible because there are armed ADF soldiers present.

In order to develop a large base of people trained to work together in difficult situations, this

viewpoint can be extended towards the establishment of a hybrid force, blending the concept of the SES and the Combat Engineers.

This could be a Virtual Unit, assembled as & where required from existing military and emergency services personnel: using whatever equipment is available from their employer.

However, it would be more efficient as a badged unit with its own - non-camouflaged - uniform, equipment and command and control structures.

It offers individuals variety in management experience, making it more attractive to recruit and maintain experienced managers. For example, a soon to be appointed Superintendent of Police could have a tour of duty as manager of an aid detachment overseas.

Clearly, the need for only the fittest and finest young people to join the force is no longer present. Many of these jobs can be done by older, semi-retired people. And knowledgeable Reservists, who can be employed without needing basic infantry training.

An infantryman guarding such a force of his own people would find traumatic incidents less psychologically debilitating because the reason for defence is more immediate to him. Similarly a teenager is more likely to join a sabre squadron.

2.2 ADVERTISING AND PROPAGANDA

Current recruitment advertising is egocentric and focuses on the individual. Whilst teenagers are egocentric, they really respond to the opportunity to rise above themselves and belong to something bigger than a diesel fitters garage. We should see more stories about Maria, who had her house rebuilt by an ADF tradesman: or

Selim, whose family was fed for the first time in a week because an ADF member learnt enough about logistics to get a bag of rice to him. And yes, in the background is an armed soldier protecting them.

The concept of Australia - and other countries - has become less obvious during the last twenty years as successive waves of immigrants have been left to fend for themselves as best they can. I might feel more in common with say an Indian university lecturer in Calcutta than I do with a resident of Lakemba, and our interests are probably more aligned.

The geographic boundaries are also less obvious as the concept of "forward defence" has been submerged by the global economy into a "anywhere there's trouble' impetus.

To say that the ADF is there to defend Australia begs the question what is Australia. Therefore, state clearly and frequently what the ADF means by Australia and its citizens' interests, and its defence of them. The ADF must question and be involved in this debate more visibly and actively than it has been in the past.

For example, a Bill might be proposed that makes English the official and only language of Australian government business. The ADF might say publicly that which language is immaterial, but that having a single, official language creates a more homogenous society which reduces the risk of internal conflict.

This is not to suggest that the ADF engages in politics any more than it does. It is to suggest that the ADF evaluates more openly how particular proposals affect the risk of conflict,

and has a visible mechanism to advance ideas that diminish risk. It recognises that the ADF is part of Australian society and has as a right to self-expression: and that it is funded by my money so has a duty of self-expression.

The ADF could extend these ideas into a World Military Officers convention, where staff officers from all nations share and assess conflict avoidance measures.

An "ADF product" placement officer liaising with TV and production companies could teach people how to behave in emergencies & cooperate with ADF forces assisting them.

2.3 STAFF WELFARE

The DMO jobsite shows that salaries for complicated jobs are being advertised at 10% or one APS grade below similar jobs in industry.

This used to be acceptable when the concept of job security existed, but now it is not. In some cases, using lifetime earning comparisons & non-financial rewards justifies differences.

ADF should make it publically known what the consequences of manpower reductions and extended equipment lifetimes are, and what type of military involvement is excluded.

The Budget must include an "Australian Families Gratitude Fund" component separate from any other item. This amount should be whatever it costs to pay people killed or injured on active duty into retirement. The point is that Widow[er]s and children are supported to the extent that they would be had their breadwinner survived. It is insufferable to pay \$65,000 or more per year to keep scumbags warm, dry, well fed and entertained in prison whilst families of

war vets struggle. Yes, the taxpayer should pay and if that is not acceptable, should not ask a citizen to put their family's welfare on the line.

The treatment of ADF staff suffering from Post Traumatic Stress and other injuries has been less than exemplary. Each story reported makes it more difficult to attract and retain recruits and more difficult to justify military expenditure - never mind the bleeding-heart humanitarian concerns.

3 CREATE INDUSTRIES

For example, an efficient way to re-supply Darwin and move troops there and back would be to flatten a twenty meter wide track and fly Wing-In-Ground-Effect aircraft up and down it. (Speed of aircraft, running cost of bus)

ADF must take more ideas like this to the point of testing in order to develop our capabilities.

Ensure that all supplies can be sourced or replaced locally - including capital assets. Politicians can argue about the ownership of the supply sources, but if sources are here they can be relied upon no matter what occurs. In this example, Flightstar in Cairns would not have been sold to a Singapore consortium until after ADF trials of their product. (In fact, the company was mismanaged to bankruptcy, so the ADF would have had to find some other way to secure the technology.)

Resist centralisation of bases. It looks good on the balance sheet but separates the ADF from local citizens. Bases should be in rural towns also to help rural economies survive - consider fly-in/fly-out operations to help preserve rural infrastructure.

Assign a zero dollar value to & never relinquish Crown land. This is a strategic asset to ADF with no way to identify its particular benefit at any one time. (Except at a naïve level.) It may host a building used for training today, it might be precisely the location needed to host a new type of detector tomorrow.

Monitor foreign government controlled ownership by proxy of our corporations. Australian bureaucrats find it difficult to understand that other people view the world differently & will not behave as the APS might. The mining industry already has shown how a foreign conglomerate can destroy assets in Australia for the benefit of distant masters.

4 MISCELLANEOUS

Since everyone talks about, modifies their actions to cater for, and believes in globalisation, it may be wise to consider the defence risks.

Studies of ancient, collapsed civilisations suggest that those that had developed complex, interrelated societies are more susceptible to catastrophic failure.

ADF could be preparing - at least as a case study - for a situation where there is no petrol or insufficient sunlight to grow food. And particularly for a collapse in the communications infrastructures, including satellites.

This is not intended to suggest a preparation for some impending doomsday is needed. It is simply recognition that total reliance on complex systems is itself a risk.

4.1 FOOD & WATER

Since WWII we have increasingly taken for granted the value of food and potable water, and are now suffering from it. Riots in many countries, shortages worldwide. 45% rise in food prices in Australia.

In future conflicts, securing food and water supplies will be more difficult than in previous ones. Plan an exercise to see what happens when staff and their dependents are concerned about protecting their food and water supplies from other Australians.

4.2 MEDIAEVAL PEACE

The West may win the mediaeval war in Afghanistan, but doesn't appear to have come to terms with winning the mediaeval peace.

One objective might be to make modern, fortified, economically self contained towns with retina controlled access & good schooling/hospitals. Foreign forces would be seen to be defending these places, and would guarantee the input of raw materials to the town.

Another might be to organise fly-in/fly-out schooling for children/families to receive a safe, Islamic education for 3 months at a time. They could go to another country, an ocean liner or even a replica Afghan village in West Australia.

Assign Afghan police to tours of duty in Australia & *vice versa* as "twins" or "buddies" to local officers.

4.3 COASTGUARD

The defence of Australia itself, rather than combating military invasion is more likely to mean protection from unauthorised immigration

or damage to the coastal infrastructure through fishing, mechanical destruction or pollutants.

The environmental conditions which sponsor mass refugee-like migrations are also likely to make conventional, high technology invasion unlikely or unmaintainable.

Make "Coastguard" a Navy speciality like "Engineering Officer" and absorb Coastguard and Customs operations. Similarly, policing operations at sea should be run by the RAN. Specialist officers, such as Customs or Police, can be individually attached as required.

Drones can assist in surveillance and cheap, plentiful, unmanned sea drones can be developed to float /swim patterns around Australia reporting findings. They could detect magnetic or electrical anomalies as well as checking acoustic signatures or finding chemical traces.

