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**COMMAND OF AUSTRALIAN JOINT FORCE
OPERATIONS**

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About the Author

The ...

INTRODUCTION

Recent conflict has shown that skilfully directed air power is a critical factor in winning a war, and is especially important when one operational requirement may be to minimise allied casualties. Key characteristics of air power such as mobility, flexibility, and ability to concentrate force in a short time are desirable attributes for the Australian environment where long distances, small force size, and no discernible threat make defence of the nation a complex task.

Command arrangements for the Australian Defence Force (ADF) are currently being refined in light of joint force operations. This will likely see the position of Commander, Joint Forces Australia (CJFA) manned permanently. CJFA will interact with the Chiefs of Staff of the three Services who will support operational forces in peacetime and war, including preparing forces for operations.

Notwithstanding the progress that has been made, there is still much to be determined. This paper presents a command arrangement that aims to maximise the combat power of the ADF and make the most efficient and effective use of the limited air power available.

THE PROPOSED COMMAND STRUCTURE

Annex A presents the command structure in diagrammatic form.

An Issue: Optimising a Command Structure for Three Operating Environments

The ADF operates in three environments: maritime, land and air. Weapon systems optimised for those environments are quite different, and each system brings with it its own imperatives in the way that system is directed. The issue then is to construct a command system that, while not necessarily being optimised for any one environment, will coordinate synergistically the combat power of the ADF across all three environments.

In Australia's maritime arena, capital ships provide a visible presence and offer good on-station endurance; however, they are costly and hence there are few in the ADF. Within each ship, especially the larger, many lives are at stake. Missions are long and slow relative to those in the air environment. A single ship can produce substantial firepower, but surface ships are vulnerable to modern anti-shipping weapons: a large, metal, warm object on a cool sea is easily detected and attacked. Submarines overcome this problem to some extent, but have other limitations in terms of mobility and firepower.

In the Australian land arena, individual Army combat elements are relatively low cost, but there are many such elements in the fighting force. The speed of movement of an army is slower than for ships while the combined firepower is very high. A large force on the ground is difficult to conceal and may be attacked, although dispersal makes it difficult to deal a crippling blow with conventional weapons. Land forces can stay in an area for extended periods of months or even years, provided the necessary logistic support is forthcoming.

Air environment weapons have different characteristics again, and few lives are at stake in any one aircraft. Speed of movement is orders of magnitude faster while endurance is measured in minutes or hours, rather than weeks or months. The firepower of an individual aircraft is comparable to a ship but the duration of its application on a single mission is limited. However, the speed of an aircraft allows more rapid response and repetition to produce an eventual effect. Aircraft are vulnerable to surface-to-air, as well as air-to-air weapons. In addition, the necessity of operating from large, fixed bases makes aircraft and their logistic support systems vulnerable to counter attack from both the air and the ground.

A command structure should seek to take advantage of the strengths of each of the component forces, while mitigating the effects of their limitations. In the case of air power, this means building organisational structures that enhance the value of an aircraft's speed, flexibility and firepower. At the same time, we must reduce the vulnerability of the aircraft themselves (through effective self-protection systems) and the vulnerability of the support bases and infrastructure associated with their operations.

Functions of the Levels of Command

Modern organisation design is based on the principle that an abstract objective will be disaggregated into increasingly tangible tasks as the hierarchy of the organisation is traversed. The current trend is to have as few levels as possible in the hierarchy to promote clear and rapid communication, responsive action and to maximise the value added at each level.

There are four levels of command presented at Annex A:

- a. national strategy;
- b. military strategy;
- c. operational command; and
- d. tactical command.

National Strategy. The decision to commit Australia to a conflict would be made by the Prime Minister and Security Committee of Cabinet, with military advice being provided by the Chief of the Defence Force (CDF).

Military Strategy. CDF is responsible for military strategy. He would take direction from the Prime Minister through the Minister for Defence. Commander, Joint Forces Australia (CJFA) would probably be appointed by CDF, who would also assign forces to CJFA. CDF would set the strategy for the conflict, receiving operational advice from CJFA and support advice from the Chiefs of Staff through the Chiefs of Staff Committee (COSC).

Operational Command. CJFA would command operations. Under his command would be the 'environmental commands' of the ADF commanded by Maritime Commander Australia (MCAUST), Land Commander Australia (LCAUST) and Air

Commander Australia (ACAUST). He may also have designated one or more Joint Force Commanders (JFCs). Note, the environmental commanders are also referred to as Joint Commanders, a title not to be confused with JFC. Ideally, the environmental headquarters (Maritime Headquarters (MHQ), Land Headquarters (LHQ), Air Headquarters (AHQ)) would be collocated to form CJFA's headquarters. CDF would seek from government the desired 'end-state' to be achieved and rules of engagement, and would pass these to CJFA. This would be CJFA's starting point in developing his broad concept of operations and recommending appropriate force levels. After approval from CDF, CJFA would produce his specific joint campaign plan.

Tactical Command. The JFCs would command fielded forces operating within defined areas of operation (AOs). Tactical units would be assigned to the JFC. Within the Joint Force Headquarters (JFHQ) there could be either an integrated or component command structure, with size and function being the primary determinants - the larger the size of the Joint Force and the more spread of the missions between maritime, land and air environments, the more likely they would be managed using the component method. Forces not assigned to JFCs also have a tactical role. These forces would remain under the command of the environmental commanders as in the peacetime situation, and would likely operate from outside specific AOs.

Operation of the Command Structure

CDF, having received instructions from the Prime Minister or the Minister for Defence, would provide CJFA with orders for the conduct of the war. These orders would be carefully written to ensure that operations are conducted within the ambit of the Law of Armed Conflict (LOAC) so that in the inevitable post-conflict analysis, there is an objective basis on which to judge the wartime actions of commanders.

CJFA would interpret these orders and execute them through the command structure with orders issued through that structure. At the CJFA Headquarters (CJFAHQ), the combat power of the ADF will be maximised by collocating CJFA's staff and the staff of the three environmental headquarters: MHQ, LHQ and AHQ.

One reason for this is based on the way air combat power is most effectively committed to combat. Aircraft such as the P-3, the F-111, the F/A-18 and the C-130 all have the range to cover much of continental Australia on a single mission. If the tactical situation demanded it, CDF could appoint several JFCs to command fielded forces in different AOs. Long range combat aircraft will in all probability be based outside these AOs and may occasionally operate in more than one AO during a single mission.

The volume of tasking activity for ADF Units positioned outside the designated AO(s) is likely to be much higher for air Units than for land Units. Land forces by their nature are normally positioned within an AO and are given relatively general orders through a commander in the field.

Aircraft, by contrast, are usually given specific orders regarding the mission, including targets, times, weapons, ingress and egress routes etc. This specificity is especially important for strike aircraft that must operate safely in proximity to friendly forces where close coordination is required to allow the organic anti-air elements of

the maritime and land forces to operate effectively, and at the same time allow friendly air power to enter the AO safely, deliver ordnance and leave within the endurance capability of the aircraft.

In some command models, CJFA is positioned at the military strategic level and the JFC(s) at the operational planning level. Such a structure begs the question of the function of CDF in the command chain. In the model presented in this paper, CDF operates at the military strategic level, CJFA at the operational level, and the JFC(s) and Force Element Group (FEG) commanders at the tactical level. Given the area of Australia and its territorial waters, such a model allows a good match between the geographic imperatives and the size of the ADF.

With CDF involved with military strategy and the JFC(s) and FEG commanders involved with tactics, the clear role for CJFA is at the operational level. Through collocation of the environmental headquarters, CJFA can closely coordinate the activities of all operational forces including those outside designated AOs (under their FEG commanders) and those in AOs under the command of one or more JFCs.

The diagram at Annex A shows how elements of the ADF are drawn together at the operational level under CJFA. The environmental commanders (working at the operational level with CJFA) maintain control of their relevant Force Element Groups which operate at the tactical level. In certain circumstances CJFA may create a separate JFC with specific objectives and assigned forces, also to operate at the tactical level.

In some structures, (that used by the United States for example), a 'Joint Targeting Coordination Board' is created at the operational planning level. When the environmental commands are collocated as suggested here, CJFA can work directly with the environmental commanders to provide the necessary assessment of target priority and the subsequent coordination of the operations of forces within an AO and forces entering the AO for specific missions. Thus, the need for a JTCB tends to be superfluous in a collocated operational-level headquarters.

To coordinate the forces under the command of JFC(s) and the forces remaining under the command of the environmental commanders (eg ACAUST), it is suggested that CJFA issue 'Operational Tasking Directives (OTDs)' to those forces under his command. These OTDs could be issued on a regular cycle, say 24 hours, or on an ad-hoc basis determined by the tempo and outcomes of the conflict. These OTDs should be of the style of mission control orders only.

With modern communications, tasking deliberations for (say) aircraft can be completed by the AHQ staff and orders issued by ACAUST as an Air Tasking Directive (ATD) dispatched from the AHQ collocated with the CJFAHQ. Specific Air Tasking Orders (ATOs) could be determined at the Wing Headquarters. Where necessary, i.e. due to large numbers of aircraft, it may be prudent to issue the ATO from AHQ. Bear in mind that AHQ staff would be acting as component staff of the CJFAHQ, and ACAUST would be the Air Component Commander.

Support for the War Effort

While consideration of support requirements is not the main thrust of this paper, there, nevertheless, needs to be some consideration of support requirements, as the longer a campaign runs, the more important sustainability becomes.

The progressive implementation of the operational command chain: CDF-CJFA-(MCAUST - LCAUST - ACAUST) has changed the original function of the Chiefs of Staff. The Chiefs now have the peacetime role to 'raise, train and equip' the standing forces of the ADF. In wartime, additional emphasis would be given to sustaining the increased rate of effort, and coping with battle damage and casualties. Given the long distances and often difficult terrain in Australia, this latter task becomes especially important.

CDF can obtain logistic support (defined as all the functions: raise, train, equip and sustain,) from the elements of the ADF not engaged in combat through the Chiefs of Staff.

In peacetime, the Chiefs of Staff provide CDF with information on raising, training, and equipping each of the Services. In wartime, CDF would expect the Chiefs of Staff to ensure that the additional sustainability requirements of combat operations were met. Ideally, CJFA could attend an expanded COSC meeting to provide input on operational priorities. Once the realistic sustainability levels that could be maintained had been identified, CJFA would take account of this during his operational planning. Conversely, operational exigencies can define sustainability priorities. Using the COSC for this function provides the mechanism to coordinate all aspects of the CDF Preparedness Directive, including CJFA's responsibility for the conduct of operations and the Chiefs of Staff' responsibility for readiness and sustainability.

Communications

First class communications are essential to the conduct of combat operations of the ADF, regardless of the command structure. With a small standing force, maximum potential will only be realised provided all those in the chain of command are clear about the actual situation and what is required of them.

Communications must support three activity phases: evaluation, planning and execution. A commander first evaluates the situation, draws up a plan of action, then executes the plan.

Execution of the plan has consequences that must be evaluated, another plan made and executed. Thus, these phases are connected in a continuous cycle, with the outcome from one cycle becoming the input to the next. The cycle ends when the war is won or lost, or other political objectives are achieved.

In any command structure, communications are a network of electronic and human channels. The most effective communications come from face-to-face human contact, and the advantage of this characteristic is taken by collocating the components in the most critical element of the structure: operational command where CJFA interacts directly with MCAUST, LCAUST and ACAUST.

Electronic communications are used when the content is either well defined or when force elements are inevitably separated geographically. In the case of aircraft operations, individual missions can be described accurately in documents such as ATDs and ATOs. In the model proposed in this paper, JFCs are at the tactical level and have fielded forces and fielded headquarters that through operational necessity will be mobile. Thus, the coordinating OTDs from CJFA would have to be transmitted to the JFC using electronic means. ATDs or ATOs from ACAUST would be transmitted by similar means to wing headquarters.

CONCLUSION

The command structure for ADF Joint Force Operations must be crafted to take account of several design criteria.

A small force requires close coordination to realise its potential. The position of CJFA as the operational commander allows the ADF combat elements to operate in a highly coordinated way, promoting effectiveness through the concentration of effort as well as efficiency by eliminating duplication of administrative and combat support tasks.

Two possibilities need to be considered. First, large-scale operations that would involve all three environmental headquarters; and second, more limited operations that may be restricted to a discrete Area of Operations (AO), and hence be conducted by a designated JFC.

For the former, the appointment of a CJFA, operating within a Headquarters in which the environmental commanders were collocated provides the optimum solution. That is, such a structure provides a focus at the operational level, whereby all tactical activities can be directed and coordinated as necessary. These tactical activities could occur across a wide geographic area; hence the characteristics of air power mentioned earlier would be optimised for responsive and flexible use as necessary.

However, in a discrete area, such as a single AO, such a structure could be unnecessarily cumbersome and inflexible. Hence, the model proposed in this paper provides for certain flexibility of a JFC, appointed to command tactical operations within a single AO.

This raises the issue of component versus unified command. The principle should be that for large forces, component command is preferred for organisational reasons: the task of operational command can be divided into manageable elements. Thus, at the operational level, CJFA is supported by a component structure where he would expect to have responsibility for all operational elements of the ADF. For smaller forces such as a fielded tactical force, unified command may be a more appropriate structure. However, should a large joint force be formed for operational reasons, the JFC may choose to implement a component structure within his JFHQ.

Logistic support is an often overlooked aspect of command arrangements. With the roles of the Chiefs of Staff to 'raise, train and equip' their forces comes the opportunity to define a command structure that effectively manages sustainability in war. Operating through COSC, CDF can balance support and combat operations.

CJFA would join COSC to provide an input on operational priorities. The Chiefs of Staff would, in addition to their peacetime roles, be responsible for providing the wherewithal to sustain combat operations.

Finally, the issue of communications is addressed. The power of face-to-face communications is recognised by the collocation of the three headquarters of MCAUST, LCAUST and ACAUST to form CJFAHQ, which would allow the commanders to meet and conduct the war in the most effective way. When the content of communications is either mechanical or the location remote, electronic communications can be used.

Annex:

A. Command and Control Structure

ANNEX A

COMMAND AND CONTROL STRUCTURE

