

Managing the Defence Transport Task

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Abstract:

Defence movements planners are being subjected to a range of challenges stemming from changes in the way Defence is being resourced and the methods by which it is expected to perform its role. In many instances these pressures are similar to those facing industry, but the unique role of Defence and its continuing obligation to perform its function, has led to a number of innovations.

After a brief orientation to Defence movements and transport, the paper identifies the pressures on Defence movements planners and discusses the responses that have been developed.

The main pressures on Defence movements are budgetary, operational and conceptual. Each has necessitated the development of appropriate responses. Command and control arrangements have been enhanced. Effectiveness has been targeted through restructuring and the development of improved information systems for operational planning; and through accessing the civilian transport infrastructure. Efficiencies are being sought through a more commercial approach to management; and some part of Defence's transportation function will soon be examined for commercialisation.

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Introduction

Australian Defence Force (ADF) movements and transport planners have been subjected to a range of challenges stemming from changes in the way Defence is being resourced, restructured and the methods by which it is expected to perform its role. In many instances these have been similar to those facing industry, but the unique role of Defence and its continuing obligation to perform its function, has necessitated the development of new methods of operation

In this context, it is important to note that there is a significant difference between civil and military transport operations. Whereas the commercial world is driven largely by the need to be profit oriented within an acceptable social framework, the goal for Defence is to be able to deploy and support forces in accordance with the directions of the Government of the day - although this, of course, needs to be accomplished efficiently and within allocated resources

Aim

The aim of this paper is to identify the pressures on Defence movements and transport planners and discuss the responses that have developed

The defence requirement for transport

Before continuing to examine these aspects, it is necessary to explain the Defence requirement for transport - why do we need it?

In a paper prepared for a previous AIRF, a previous DGJMOVI, Brigadier G J Christopherson, AM, stated: "In a speech on transportation and the military in September 1986, the Honorable William H Taft IV, then a US Deputy Secretary of Defence said:

Shooting is what most people focus on, which is understandable since weapons are the big ticket items in the defense budget. And communication, which today involves such exciting systems and technologies as satellites and fibre optics, is essential to almost every aspect of defense. But the ability to move - to deploy forces and equipment - is first on the list.

The Defence transport requirement is usually considered in terms of strategic or tactical mobility. Strategic mobility is the ability to move personnel and equipment from base support areas to an area of operations - usually over relatively long distances. Tactical mobility, on the other hand, refers to movement within an area of operations."

The importance of transport was, of course, decidedly and devastatingly proved during the Gulf War. Transport professionals will recognise the huge task involved in the deployment of, for example, troops and equipment from the US to Saudi Arabia. The statistics are now part of the folklore of that war

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The overall airlift deployment moved the equivalent of a Berlin airlift every six weeks

At the peak of Desert Shield 8000 troops daily were arriving in Saudi Arabia, delivered by an average of 65 aircraft, the equivalent of one landing every 22 minutes, day and night

During Desert Storm, this peaked to 127 aircraft per day, an average of one landing every 11 minutes

Sea lift also played a valuable part, eventually moving some 90 per cent of tonnages carried to the Gulf

Before the war started, 2.9 billion short tons of dry cargo had been moved, with some 600,000 short tons still en route

38 tankers moved 5.4 billion short tons of petroleum products

146 round trips were made by 114 ships of 20 different nations

Once the ground war started, the ground transportation support for the Allied forces which conducted the left hook, west of the Wadi-al-Batin, and advanced 300 kms, was enormous. One report indicated a daily convoy of trucks extending for 40 miles

There was, in fact, a never-ending convoy of 4500 trucks which moved supplies to the front. This equated to 18 trucks passing a given point every minute, 24 hours a day, during the offensive.

Our tasks in the Australian Defence Force do not, of course, tend to be of the magnitude just discussed. However, for Kangaroo 89, which was our largest recent peacetime exercise, we moved about 40,000 personnel in over 40 chartered civilian aircraft and about 1500 semi-trailers were used to deploy and redeploy stores and equipment. Kangaroo 92, which was conducted earlier this year, used over 500 semi-trailers to deploy and redeploy stores and equipment. Over 14,000 personnel were moved, about 70% by chartered civilian aircraft. The quantity of equipment and vehicles moved by sea equates to approximately 193 semi trailer loads

An explanation also needs to be made of the terms movement and transport. Within defence, transport refers to physical resources such as aircraft, ships or vehicles used to move stores and people. Movements refers to the function of planning and controlling the operation of transport. This will be enlarged on later

Scope

This paper will address the following aspects of Defence Movements and Transport planning:

- functions and organisational structures;
- the nature of change and accompanying pressures;

command and control arrangements;
effectiveness improvements;
efficiency improvements; and,
the outlook for Defence movements and transport planners;

Movements and transport function and organisational structures

Defence movements

The Defence "*movements*" function incorporates the planning, coordination, organisation, execution and control of transportation for personnel and materiel from origin to destination within a stated period of time. A good illustration of this function occurred during Exercise Kangaroo 89. This was the largest Defence exercise ever held in this country, and the movements organisation was responsible for the deployment of personnel together with their vehicles, equipment and supplies to the north west of Australia over a 45 day period. The movements organisation was also responsible for their orderly extraction from all parts of the exercise area at the end of the exercise, a time when everyone was keen to get home.

"*Movements*" is also the name of the organisation and the staff which are established and manned to perform these functions. Two movement functions, planning and control, are performed within the organisation:

Movements planning: Movements staff may be drawn from all three Services and are responsible for the formulation of Movements policy, the planning and co-ordination of movement and the allocation of what are sometimes scarce transport resources to support planned movement.

Movement control (MC): The movement control function is regarded as the action element and is usually performed at airfields, ports, railway stations, and other control points. These organisations are usually geographically dispersed and consist of Movement Control Officers (MCO) and their staffs predominantly drawn from Army but may be drawn from all Services.

The movements fraternity can be further categorised according to the customer they service. In the main there are two types of customers; those who perform a tactical function close to the area in which the battle might be fought, or more formally titled the Area Of Operations.

The second customers are those that are remote from the battle field and are focused on generating the support for the deployed forces from Australia's industrial infrastructure. These customers are likely to be interested in strategic movement from what in military terms is titled the Support Area.

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The area of operations: Within an Area of Operations (AO), Movements staffs will be found at the Force Headquarters, Headquarters Communications Zone and subordinate headquarters when required

The support area: In the Main Support Area (MSA), Movements staffs are found at formation or senior headquarters such as Headquarters Australian Defence Force (HQADF) located in Canberra and Headquarters Logistic Command (HQ Log Comd) in Melbourne. Movement Control elements are located in areas of troop concentrations and, for operations and major exercises, will be located along the Lines of Communication (L of C) that are established along major arterial routes between the Support Area and the Area of Operations.

Defence transport

Defence transport is a logistics function that may be drawn from either Service or commercial resources. In general terms Defence retains tactical transport assets that may be required to support operations within the AO. Strategic transport assets are normally obtained from industry on an as required basis through normal commercial means.

Given the diverse nature of the Defence mission, a range of transport activities is undertaken requiring the Services to own assets pertaining to three of the four modes of transport (road, air and sea). Each Service component is made up of both personnel and vehicular resources. The current disposition of the assets has grown essentially from the three Services' transport operations although some developments in transport integration have occurred and will be addressed later in this paper.

Pressures on defence movements

Budgetary

Defence Movements, like other areas of Defence and indeed the Public Sector as a whole, is subject to the pressures of reduced funding. The emphasis is on doing more with less. These budgetary pressures require that the organisation closely examine its activities and priorities with a view to increasing efficiency and effectiveness but at the same time reducing costs. This financial reality is likely to continue for the foreseeable future.

Financial devolution: Under revised financial arrangements currently being introduced (Program Management and Budgeting), financial management is increasingly

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being devolved to lower levels of management. There is an expectation of increased accountability at these levels and, at the same time, there will be increased visibility of the costs of performing particular functions.

Cost effectiveness Considerable impetus exists within Defence to compare the costs of performing functions internally with options for their performance in the private sector. Costs are now a major factor in evaluating whether functions currently performed internally should be contracted out.

Operational

Transport In peacetime, the military demand on movement facilities is normally small and is satisfied without difficulty by the existing commercial infrastructure, as part of a much larger market serviced by industry. During periods of conflict however, particularly in the Support Area, a substantially increased military demand would be added to the day to day civil demand for transport.

Movements Military Movements planning functions in peace are normally limited in scope to the co-ordination of relatively small scale deployments and extractions. The value of the infrequent large scale military exercises is that it also impresses on Defence planners the importance of the movements function in the context of a Defence emergency.

Conceptual

While the nature of Movements from a functional perspective is no different to what it was two generations ago, the emphasis has changed in relation to the means of movement, the standards of support expected by the customer, the rapidity of deployment and the acceptance of joint Service operations in place of the Single Service activities of a decade ago.

Air Air transport has become accepted as the normal means of movement. Its flexibility and timeliness permits a far greater latitude in movement planning than do sea or rail transport. It is, however, more expensive, suitable for limited types of cargo and must have an airfield at the destination.

Sea Although the benefits of sea transport remain its flexibility of routing and its large carrying capacity, it has not been widely used as a means of military movement within Australia. Again, this may be attributed to the limited requirement for strategic deployment of the ADF, and the limited port infrastructure in the north and north-west.

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Implications The implications of these conceptual changes together with limited capital investment programs undertaken by commercial operators result in little spare capacity to accommodate military requirements. Reserves of commercial transport are no longer identified for military use, nor is the potential military use a consideration in the design or purchase of most commercial transport assets today

Organisational Change Discussion on conceptual pressures cannot neglect the impact of recent ADF organisational changes. Rationalisation of Defence administrative functions at regional level is currently being implemented across the country including the non-operational travel function. The Defence Regional Support Review (DRSR), and the associated devolution of responsibility for organising administrative travel means that units are now responsible for local co-ordination of travel and the movement control function has been removed from the regional military staffs. The resulting Movements structure is consequently smaller and is retained solely, but some would argue correctly, to provide support for deployment on operations and exercises

The result of these operational, conceptual and organisational pressures may lead to a loss of movement planning expertise in the transport modes not regularly used unless exercised from time to time. There is also a necessity to impress on operational planning staffs the need to fully consider the movement implications of their planning. Also, the Movements organisation and infrastructure has been reduced to skeleton staffs requiring augmentation for each activity requiring Movements support

Command and control arrangements

Command and control in Defence movements relates to the hierarchical relationship that exists between the movement operators and the movement staff or planners. A direct relationship is desirable, but in effect the relationship crosses both functional and Service boundaries. Consequently, the organisational changes mentioned previously have generated the need to review these hierarchical arrangements to ensure the adequate operation of the Movements network

The working relationship

The relationships between the Movements organisation (Movements staff and Movement Control), the transport users (customers) and transport operators have remained largely unchanged since World War Two. There is a well recognised need for some form of intermediary between the military users of transport, who may have little knowledge of the different agencies available and their capabilities, and transport operators, who are

pre-occupied with operating their assets to secure a profit and providing a safe and reliable service

Movements acts as the coordinator of, and the interface between, all elements involved in movement and will *control* movement. The function does not determine how the selected transport agency will operate, nor will it determine the priorities for movement which are determined by the Force operational planners.

A movements principle: In peace and war, the general movement principle of *centralisation* of control at the highest level entails certain divergences in the Movements staff system and organisation from those of other military staff relationships.

Dual allegiance The Movements staff located within each region will generally find themselves coping with a dual allegiance created by the requirement for through movement from the Support Area to the Area of Operations. This type of movement is controlled by the Movements staff at the highest headquarters, and the local staff are required to respond; firstly, to the local or regional commander for all local movement matters, and secondly, to the senior Movements officer at the superior headquarters for all through-movement.

This system of dual responsibility, although possibly undesirable in theory, is necessary for the detailed control of movement. It has been tested extensively in operations and was frequently practised in World War Two, particularly in combined and Joint service headquarters and staffs.

Planning versus implementation A second characteristic inherent to the movements function is that Movements staff have a direct responsibility for the day to day supervision and control of the movement it has planned. For this purpose it has access to subordinate Movements staffs located at regional and perhaps formation headquarters. It also has Movement Control units and detachments located at areas of troop concentration and critical points on the through Lines of Communication between the Support Area and the Area of Operations. Those staffs and units assist in the programming and initiation of movement and supervise, on the ground, the execution of movement instructions and orders.

Command and control arrangements

Any future military emergency will almost certainly be Joint Service in nature. From a Movements perspective, therefore, the planning and probably the implementation will also be undertaken by jointly manned organisations - some of which are already in place, for example, in HQ ADF and HQ MC located in Log Comd-Army. Eight Movement Units (MU) have recently been established nationally, in areas of troop concentration, having been rationalised from what were 21 Movement Control Offices and Units. These MU, directed by HQMC as an element of Army's HQ Logistic

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Command, form the basis of the Movement Control organisation for deployment and maintenance of units in support of operations and major exercises

During Defence emergencies, the movement control organisation will generally conform to this skeleton peace time organisation. It is unlikely that the system of Defence Regions within the Support Area will alter fundamentally and Movement Areas can be expected to conform with these Regions, with the possible exception that additional Movement Areas may be raised in major terminals such as Sydney and Brisbane and areas along the Lines of Communication where a particularly heavy movement load develops, e.g. Mount Isa or Tennant Creek.

Area of operations: Control of movement in the Area of Operations is the responsibility of the Force Movements organisation, although it cannot operate in isolation from the Movements infrastructure in the Support Area. The continuing need for liaison between the MC detachments in the AO and their parallel MU in the ASA, includes close contact between the staffs of the respective HQ. This is of prime importance for successful control of movement. An example organisation which would support a major theatre or AO with large forces deployed is outlined below.

Force HQ: Movements staffs will be included on Force HQ, probably as a staff increment, headed by the senior Movements staff officer and responsible to the Force commander. On a Joint Force HQ, the Movement staff organisation is known as the Joint Movements Co-ordination Centre (JMCC).

Lower formations: Movements staffs will be located at the HQ of Communications Zone, Communications Areas (including Base Areas), Army and usually Corps. The Movements element within Army (for duty in the Combat Zone) will generally consist of a Movement Control Group with an establishment commensurate with the size of the task.

Movement control units in the area of operations: The deployment of Movement Control units in the AO will vary according to the nature of the operation, the geography of the AO, the lines of communication and the transportation resources available. While the functions of these units are largely similar to those required in the Support Area, their organisation differs considerably. This occurs because the extent and nature of the task in the AO is largely unknown, while the bill for movements in the support area is predetermined. Consequently, the Movement Control Group in the AO is designed to retain a regional grouping of MC detachments, but is flexible with a larger reserve capacity built into the organisation.

Improved effectiveness

Much of the work involved in planning large scale military movement is regarded as "number crunching". The aggregation and coordination of people, vehicles, equipment

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and stores to be moved, calculations of transport capacities, identification of journey distances, etc are largely mathematical. These functions have traditionally been performed manually and have required calculation each time they were needed. Clearly potential for automation exists and two areas have been targeted for further examination. The first is the provision of an transport infrastructure directory called the Military Planning Support System (MPSS). The second initiative is an automated movement planning capability called the Operational Movement Planning System (OMPS).

MPSS

The aim of MPSS is to assist military planners in strategic and tactical planning for the movement and support of operations. The system is based on a series of data bases, broadly assigned as strategic and tactical. Each includes subordinate data bases for vehicles and infrastructure information. As an example the system plans to provide ship to berth matching, aircraft to airfield matching, strategic rail route selection, strategic road route selection, infrastructure plotting, route selection within Northern Australia, and port to port distances.

The system prototype was not easy to use. Further, the data bases required regular and frequent updating, negating many of the perceived benefits to be gained from the application. Finally, not all elements of the system had been made operational, which further reduced its effectiveness. Consequently, the system has not progressed during the past few years.

Other concepts for a Defence-wide infrastructure directory are currently being examined. Most appear to favour a long term approach to the development of a centralised Defence database, featuring a cyclic amendment and upgrading of information.

OMPS

The Operational Movement Planning System is currently being developed to improve the efficiency of planning, implementation and monitoring of strategic movement and movement control of Joint forces. When completed it should provide not only the movements organisation, but also the transport mode operators and to some extent military formations, with a rapid planning tool for the efficient and effective deployment of ADF units.

To provide this function OMPS is expected to consist of capabilities such as: Collation of staff table data, consolidation of operational constraints and timings and the identification of movement resources,

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Assignment of all passengers and equipment to transport modes and the development of mode tables,

Assessment of likely shortfalls in capacity required to move the force, or possible excess capacity,

Preparation of ADF Movement Instructions

To ensure its potential is achieved OMPS requires access to central data bases for ADF unit equipment, transport capability and infrastructure information. This is not easily provided, for while much of the information is available to military planners, it remains largely dispersed and in forms which can only be accessed manually at present. The provision of infrastructure information is still only in the planning stage and can be expected to remain a long term project. Nevertheless, the development of OMPS is progressing on schedule.

Access to civilian transport resources

The Gulf War saw both the USA and Britain rely heavily upon the ability of their transport industries, particularly shipping, to deploy and sustain their expeditionary forces. Australia is no different. Measures are now being taken to formalise means by which the Australian Defence Force can access the civilian transport infrastructure during a range of contingency situations. The means by which this access is to be achieved, has been, and is continuing to be a high priority.

Currently, Defence is identifying a range of capabilities required to perform the Defence mission, separating those most appropriately performed and resourced by the military, and those to be undertaken by the civilian infrastructure. As movements is primarily about moving numbers of personnel and quantities of materiel, substantial links are now in place with commercial operators for the performance of strategic transport tasks. These can be marshalled from civilian industry to provide capabilities not only unavailable in the military, but in fact best performed by the civilian infrastructure.

Defence has sought to identify a range of existing, potentially useful resources within the transport industry and establish Memorandums of Understanding (MOU) by which subsequent commercial arrangements could be facilitated. These arrangements are seen as reducing the lead time to access civilian resources during a contingency. They also, however, enable us to gain sufficient knowledge of the resource and any trading commitments to assess its usefulness to Defence and the likelihood of it being required during contingencies. Experience has shown that, despite companies displaying enthusiasm for the Defence cause, the reality of their trading situation will prevent, or at least hinder, the actual provision of resources. The MOUs have given Defence a better appreciation of the capabilities of the civil transport industry and will facilitate the

provision of transport support. The contracts that are expected to be let under the MOU umbrella would not be any different from normal commercial contracts but for Defence the lead time to effect such contracts is reduced.

From Defence's perspective, there must be a degree of confidence or assured performance from the civilian contractor in order for Defence to achieve its mission. It is relatively easy for military planners to attribute capabilities to actual military units. Depending on the nature of the support arrangements employed, this may not be the same for civilian resources as there is a limit to the degree to which Defence can expect civilian resources to engage in activities that may expose them to risks.

In the negotiations to establish the 17 MOUs currently in place, it is clear that insurance and indemnification are a major concern for mode operators. This is understandable, as the purpose of the MOU process is to enable Defence to access transport support for ADF operations or contingencies which involve an element of risk beyond that encountered in normal commercial operations.

During more substantial conflicts, and perhaps during low level contingencies when essential civilian support is not readily available, compulsory measures may have to be considered. The Defence Act 1903 and the Naval Defence Act provide for the requisition of civilian resources. However, currently this section does not have supporting regulations and therefore is considered inadequate for the purposes of requisition. During World War II, requisition was provided for under the National Security Act (Control of Shipping regulations). However, these were progressively repealed following a series of High Court decisions during the early 1950s.

Should Government be prepared to consider the establishment of mechanisms by which civilian resources can be compulsorily brought into service, further examination will be required to define the most appropriate arrangements to be adopted. At this stage, it is considered that arrangements should be flexible in their coverage and provide for graduated implementation. Clearly, insurance and indemnification would be key issues. Indeed, over the years that the shipping industry has been discussing the issue of requisition with Defence, the industry association has maintained that requisition will be a necessary feature of more substantial conflicts, and that legislation and the administrative mechanisms should provide a regime of appropriate controls and financial security measures.

Increased efficiency - the commercial vehicle management program

A major factor in the search for increased efficiency is the move towards a more commercial approach to management. A project in the Movements and Transport area is what has come to be known as the Commercial Vehicle Management Program (CVMP) which aims to produce significant savings in the costs of owning and operating

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the 6,500 commercial vehicles throughout Defence through the adoption of commercial practices. Amongst others, the program has the following objectives:

in retaining ownership of the vehicles, the Services were to adopt new acquisition and disposal criteria which were no less advantageous than those pursued by the Department of Administrative Services and commercial operators;

the adoption of a basic replacement criteria of two years /40 000 km for the majority of commercial vehicles;

the introduction of an automated fleet management information system (CVMIS) to assist fleet managers to make timely decisions and to operate their fleets in a cost-effective manner;

the return of the net funds from vehicle sales to the fleet managers to reduce capital outlays associated with the purchase of replacement vehicles; and

the provision of additional funds or 'seed money' for a limited period to provide for the modernisation of aged Service fleets aimed at bringing each fleet to a level where replacement/operating costs were minimised, and budgetary savings could be realised.

In support of the CVMP, Defence has purchased a licence a commercial software application which provides for commercial vehicle management information as an aid to decision making. This application, known as the Commercial Vehicle Management Information System (CVMIS), was installed at key sites throughout the Services during 1991. The system has already produced a level of visibility of commercial vehicle numbers and costs, not previously available. The Services have completed data input of some 6000 vehicles and are in the process of identifying the most appropriate means of capturing operating cost data for input to the CVMIS. As the system further matures, better information will be available on the cost of operating these vehicles. This will range from analysis of vehicle utilisation, fuel consumption and costs, repairs and maintenance and accidents through to budgetary assistance by identifying vehicles due for replacement in any given period and an estimated return on resale. The CVMIS is proving to be an effective tool in providing an overall picture of the status of the fleet, and the means by which ownership costs may be reduced.

Fleet age: In 1988, the age of the Service commercial vehicle fleets averaged 43.8 months per vehicle. Unless improved funding arrangements and management initiatives were implemented, this situation was expected to worsen. Under the CVMP initiatives, the Services have successfully reduced the age profile as at October 1991 to an average of 26.7 months. This fleet modernisation process has effectively:

reduced operating costs relating to maintenance and spare parts;
resulted in the disposal of most of the older vehicles painted in single Service colours which provided reduced returns on resale;

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although not fully quantifiable, is expected to achieve savings in maintenance pools and temporary hire requirements

Improved management practices

The adoption of commercial management practices will improve the use of available resources, and these initiatives are expected to yield the following benefits:

Fleet managers have undertaken a number of commercial training packages; the purchase of vehicles in commercial colours, has both reduced initial purchase prices and provided for increased returns on resale;

the return of disposal revenue to the fleet manager has resulted in the purchase of vehicles on the basis of expected returns on resale, detailing of vehicle prior to sale, and selecting the most appropriate market for sale e.g. transport of vehicles to major capital cities for sale when cost effective; permitting the sale of vehicles to occur in a manner that maximises the return to Defence. This may involve government or private auctioneers or dealer trade-in; and

enabling fleet managers, via the CVMIS, to monitor vehicle usage and costs, and to change vehicle entitlements when a more cost effective means of meeting the user's requirements can be identified

Future objectives

The implementation of the CVMP initiatives will proceed with the aim of reducing the costs of the commercial fleets to the Defence Portfolio. This process is being closely monitored at the highest levels within the Department and savings are not only expected but are to be qualified and quantified. It is intended to continue with the initiatives already identified and to continue the process of introducing more efficiencies. This will include:

a possible consolidation of fleet management functions under a Single Service Logistic Management arrangement where one Service is made responsible for supplying Defence's needs

a cost comparison between Defence continuing to own and operate its own fleet and the costs associated with supply from commercial sources;

the inclusion of all vehicles currently hired under the umbrella of the CVMP initiatives

The outlook for the movements and transport functions

Like other areas of Defence activities, movements and transport functions can no longer be regarded as the preserve of Defence. Recent initiatives such as the Commercial Support Program (CSP) require that the cost effectiveness of selected activities be critically examined against the possibility of their performance by the private sector. Commercial vehicles will be subjected to the CSP process in 1993.

The future for Defence Movements lies in the evolution of a truly Joint Service capability. The acceptance of a Joint Service approach to both the planning and implementation of ADF strategic movement is the most universal it has been in almost 20 years. Consideration is presently being given to the joint manning of what in the past have been single service (Army) Movement Control headquarters and units. Closer relationships are being established between the Movement planners and the other branches of the staff, and just as importantly, the transport operators of all modes are recognising the importance of a Joint service Movements system.

The difficulties in maintaining an adequate base of trained Movements personnel are likely to remain with us in these times of contraction of the ADF. However the recognition now being afforded to the importance of the function and the organisation, combined with OMPS and the other measures being taken to provide greater efficiencies, should ensure continued support for Defence movement planners.

Conclusion

The planning for the future transportation needs of the Australian Defence Force is based on current strategic guidance. This gives us a golden opportunity to position ourselves to achieve efficiencies within the ADF and the Department. It also enables us to put in place arrangements with the civilian transport industry to access required capabilities.

This paper has covered a very wide ranging subject, and no overall summary will be attempted. However, there are a number of challenges and opportunities facing Defence in the way it is being resourced, restructured and the methods by which it is expected to perform its role. This has necessitated the development of new methods of planning and operation, which have been discussed in this paper.