



Responsive global airlift

An Australian perspective

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Australia's unique geo-strategy makes long-range airlift an essential element of most Australian Defence Force (ADF) undertakings for both indigenous and offshore operations. The distances within the Australian territory makes even exercises and training take on an expeditionary nature. Furthermore, recent experiences in sustaining a number of coincident expeditionary forces have highlighted the need to possess adequate airlift capabilities to secure Australia's national interests.

The concept of Responsive Global Airlift (RGA) addresses this requirement. RGA seeks to deliver a balanced airlift capability across the spectrum of operations by matching the specific capabilities of individual airlift platforms with the explicit needs of stakeholders for the achievement of joint outcomes. This is particularly applicable to small air forces operating a limited number of airlift platforms, since those platforms are required to provide significant flexibility and responsiveness.

Australia has a long history of supporting expeditionary operations through intra-theatre airlift – from operations in the Pacific theatre during the Second World War, through the conflicts in Korea and Vietnam in the 1950s, 1960s and 1970s. Although there was a lull in such operations in the 1980s and early 1990s, the deployment of the ADF-led

multinational forces into East Timor in 1999 needed large-scale expeditionary airlift effort from the Royal Australian Air Force (RAAF). This has been followed by the ongoing support to expeditionary operations in Afghanistan and the Middle East.

Inter-theatre logistics for Australia's recent operations have relied on three independent lift capabilities: RAAF airlift, contracted or coalition airlift, and Royal Australian Navy sealift. The existing assets of the Air Force have been adequate for the inter-theatre role, except for the lack of capability to rapidly move outsized cargo. Contracted and coalition airlift have filled this gap as required and also augmented commercial troop lift capability. Despite the small size of its contingent, Australia has regularly contributed significant airlift capability to coalition expeditionary operations.



*United States Air Force C-17 over Hawaii.
Credit: Department of Defence*

The delivery of two new platforms over the next five years (at the time of writing) will provide a quantum increase in the responsiveness and effectiveness of the RAAF's airlift capability. Between now and 2010, the RAAF will take delivery of four C-17 Globemaster III heavy airlift aircraft, and five A330 Multi-Role Tanker Transport aircraft. Integrating this new fleet into the existing capability in a balanced and efficient manner will be effected through the RGA concept. *See endnote for update.ⁱ*



A C-130J in flight. Credit: Department of Defence

RGA is a key component of joint effects-based operations and relies heavily on an understanding of the desired joint outcome to determine enabling payloads, and to match payloads to optimum delivery methods. RGA endeavours to match the unique characteristics of different airlift platforms – range, payload, speed, self-protection, short field performance, reliability, etc – to the payload requirements in terms of size, weight, distance, priority, time constraints, airfield limitations and threat environment. While RGA incorporates the traditional 'hub and spoke' logistics delivery model, it is not constrained by it. RGA creates greater responsiveness in the airlift force by not restricting movement only between hubs and spokes but allowing direct access to and from all points within the system. This produces

more effective outcomes, making RGA a vital concept for small air forces reliant on efficiency to achieve effectiveness.

The RGA model envisages that inter-theatre airlift will generally still deliver its load from a fixed hub to deployed nodes, from where medium and light transport will distribute payloads to in-theatre points. This operation can be run in parallel with different platforms delivering complementary capabilities. At smaller deployed nodes, both fixed- and rotary-wing aircraft can transfer stores and personnel to the points where they are required. The C-17 also has the capability to move bulk and oversized cargo over intercontinental distances directly to small nodes, bypassing the intra-theatre lift requirements.

RGA also mitigates to a certain degree the problems of battlespace control in a highly dynamic and complex airspace management environment, by both reducing the number of aircraft in the air or on the ground, and by dispersing delivery nodes to the most appropriate level.

An effective RGA framework offers Australia significantly more than just the capability to move large quantities of personnel and cargo over large distances. The ability to react responsively to produce outcomes at short notice provides significant strategic shaping effects, proven by recent expeditionary operations to provide support in the wake of the 2004 Boxing Day tsunami and the Bali terrorist attacks. These missions have shown that a responsive airlift system can create effects that contribute to perceptions of security. RGA operations can demonstrate a nation's strategic posture and shape perceptions, and can signal status, competence and intent both regionally and internationally. The inherent responsiveness

of RGA allows rapid intervention with greater impact in regional crises, creating enhanced strategic effects. The ability of a single C-17 to deliver, for example, a troop of light-armoured vehicles and their crews into austere airstrips in the region within hours, offers different force application nuances than are currently available with existing, lighter, airlift assets.

Within the broader framework, inter-theatre platforms such as C-17 and A330 can deliver payloads to expeditionary operations around the globe without intermediate stops when supported by air-to-air refuelling. This increases the flexibility to operate in complex political environments where landing rights, etc, may be difficult to obtain. Given Australia's geographic isolation, this is a significant factor in the expeditionary deployment of air power.

RGA will become an integrated component of the RAAF's operating concept and aspects of it will be networked to ensure responsiveness to adaptive command and control. As a node in the network, airlift assets also offer the potential to act as a network relay to other units operating at the geographical extremity of the network, while adding the information gained by their sensors to enhance battlespace awareness. In this way, both inter-theatre and intra-theatre airlift assets will provide expanded support to force application beyond that provided by lift alone.

Both by nature and intent, the ADF is an expeditionary organisation that requires high tempo airlift support across the spectrum of operations. RGA will deliver Australia's expeditionary requirements by creating a balanced system of airlift that matches optimum platform capability to the requirements of the joint stakeholder from home to frontline as part of a coordinated effects-based approach. Air lift, both inter-theatre and intra-theatre, illustrates the primary air power characteristics of ubiquity, in affording access to the whole theatre of operations, and pace, using speed and responsiveness to meet the immediate needs of an uncertain and volatile situation.

- *Australia's geo-strategy requires the ADF to be expeditionary in nature and that entails airlift support for sustenance*
- *Responsive global airlift provides timely movement, positioning and sustainment of military forces and capabilities across the spectrum of military operations*
- *The delivery of two new platforms over the next five years will provide a quantum increase in the responsiveness and effectiveness of the RAAF's airlift capability.*

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ⁱ As at December 2024, the mobility fleet comprised 8 x C-17 Globemaster, 7 x KC-30 A330 Multi-Role Tanker Transport, 12 x C-130J Hercules, 10 x C-27J Spartan, 2 x 737 Boeing Business Jet, 12 x KA350 King Air and 3 x Dassault Falcon 7X aircraft. Project AIR 7404 is looking to replace the current C-130J and C-27J fleet with up to 30 new C-130Js, including 6 to 8 KC-130J aircraft, subject to approval.