On Boxing Day 2004, an earthquake measuring approximately 9.2 on the Richter scale occurred in the Indian Ocean north of Simeulue Island, off the western coast of the Indonesian island of Sumatra. This caused a series of tsunamis that resulted in the death of some 230,000 people. The greatest loss of life and damage to infrastructure occurred in coastal areas around Banda Aceh, on the north-west tip of Sumatra.

In response to this crisis, the Australian Government instructed the Australian Defence Force to immediately provide humanitarian assistance to the affected area. Operation Sumatra Assist was quickly launched. The ADF deployed the following force elements: Air Force—air lift, an Air Operations Centre (AOC), aero-medical evacuation and air load teams; Navy—HMAS Kanimbla and embarked Sea King helicopter flight; and Army—aviation, engineering and construction units. In addition, joint-force elements such as the Defence Supplementation Staff (DSS), Joint Movements Group detachment, Joint Logistics Support Force and the Anzac Field Hospital were also sent. At the height of the operation around 900 ADF personnel were involved.

Initially, four C-130H/J Hercules transports from 36 and 37 Squadrons were assigned to the operation and based at Medan (the capital of Sumatra, about 400 kilometres from Banda Aceh) and Butterworth air base in Malaysia. These and similar aircraft provided intra theatre lift from major ports such as Jakarta, Medan and Butterworth into Banda Aceh airport. The RAAF C-130s accounted for the majority of cargo and passenger transportation between Medan and Banda Aceh, and by the end of the operation had delivered a total of 1,200 tonnes of stores.

A troop of four Army UH-1H Iroquois helicopters was also deployed to Banda Aceh. These aircraft were tasked by the local coordinating agency for the tactical level distribution of relief supplies to places of greatest need. Two Sea King aircraft (one of which was tragically lost with the loss of nine Australian service personnel at Nias on 2 April 2005) provided tactical level humanitarian relief and aero-medical evacuation to Kanimbla's embarked health facility. A 32 Squadron King Air B350 aircraft was also deployed to Medan for command and control functions and to move small numbers of personnel around the Area of Operations. This aircraft was subsequently replaced by a King Air B200 from the Army.

The non-warlike environment, the passenger loads involved, and the nature of the airfields used for this operation also allowed the use of contracted civil air transport in support of the ADF operation. An ADF leased, civilian-crewed Dash 8 aircraft was based at Butterworth from early February 2005 and primarily used to move personnel between Butterworth, Medan and Banda Aceh. This proved to be a cost effective measure that released the C-130 aircraft for use in relief operations. Such use of contracted aircraft, integrated at the operational level, was a new development for the ADF.

The Australian forces involved in Operation Sumatra Assist operated as Joint Task Force 629. The size, disposition and structure of the JTF remained in a continual state of change to meet the dynamic operational needs and the environmental challenges, such as monsoon weather which at times delayed the relief effort. In February 2005, the AOC and the three remaining ADF C-130s moved to Butterworth, primarily due to the limited use of the C-130s, the need to free them for other operational use and the particular requirements of the relief efforts.
to lack of tarmac space and air traffic control (ATC) delays in operating from Medan. In the closing stages of Operation Sumatra Assist—phase one, the JTF HQ was relocated afloat on board HMAS Kanimbla.

Throughout the operation, elements of the Australian JTF operated from dispersed locations at Banda Aceh, Butterworth, Medan airport and from HMAS Kanimbla. The JTF also provided assistance to other Australian Government and non-government organisations. One example of such assistance was the situational briefing given to Australia Zoo staff providing aid to injured elephants in the Banda Aceh area.

The relief effort from all the nations involved was coordinated through a Coalition AOC established at Medan airport. The AOC staff included representatives of USA, Australia, Indonesia, and Singapore. The use of the AOC proved invaluable in maximising the operational effectiveness and efficiency of the relief effort. Immediate planning and operational control of ADF and RNZAF fixed wing flights was done at the AOC by ADF personnel, with longer term planning—outside three days—being carried out by air planning staff at HQ JTF 629. Load coordination for personnel and supplies was jointly managed by the AOC and Joint Movements Detachment to optimise the delivery of relief aid.

Aero-medical evacuation (both rotary and fixed wing) was coordinated from the AOC by the late SQNLDR Paul McCarthy. Although some dedicated AME missions were flown, the bulk of AME and regular evacuation was done by back-loading on aircraft departing Banda Aceh following the delivery of relief cargo. Seventy AME patients were transported and a large number of people evacuated, in addition to some 2500 Indonesian military personnel who were relocated by ADF aircraft.

The operational challenges encountered during this operation demanded innovative solutions. The tower and approach control at both Medan and Banda Aceh airports were serviced by organic Indonesian ATC, and although relief manning was made available, ATC services were often overwhelmed by the sheer volume of traffic. One solution to this problem was the extensive use of mobile telephone SMS by aircraft crews and AOC staff to closely track and control aircraft movements.

Despite the coordinated planning effort, managing the high number of aircraft movements within the available tarmac space at both Medan and Banda Aceh airports became a significant challenge. Although slot times for both airports were carefully managed by the Coalition AOC, the flying program could not capture inter-theatre lifts from agencies and governments not affiliated with the AOC. Large aircraft ‘just turning up’ with a load of relief supplies often caused significant delays to planned movements. A build up of relief supplies on the tarmac at Banda Aceh, which were not further distributed efficiently, also adversely affected aircraft movements. Further, VIP visits, such as those by heads of state, often caused significant disruption to the flying program.

The effects of the relief operation proved far more enduring than the direct effect of the immediate crisis response. In the days immediately following the tsunamis, public health experts from around the world had predicted that the death toll from secondary effects—disease and exposure to the elements—would be even greater than the initial disaster. In the months that followed it became apparent that, due to the direct and ensuing indirect effects of the comprehensive and coordinated international relief effort, these predictions were overly pessimistic. The ADF and RAAF were major players in this relief effort, providing direct and indirect humanitarian assistance that undoubtedly saved many lives.

• Flexibility, adaptability and innovation remain cardinal principles for the success of any air operation, warlike or otherwise
• Command and control of operations, even at the lower end of the conflict spectrum, is a complex activity
• Sumatra Assist was a clear demonstration of strategic shaping being achieved through well-orchestrated tactical actions