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JCSP 40

Exercise Solo Flight

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EXERCISE *SOLO FLIGHT* – EXERCICE *SOLO FLIGHT*

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NEW ZEALAND'S DEVELOPING COMPREHENSIVE APPROACH TO HADR OPERATIONS

Throughout its relatively short history of European settlement,¹ New Zealanders have coped with many tragic disasters including Earthquakes, Floods, Lahars, Tsunami and Volcanic eruptions, as well as man-made disasters such as plane and train crashes. New Zealand lies in a geologically active region of the planet and is thus prone to a number of natural disasters. The country lies on the boundary between two tectonic plates, placing many urban centres at risk of a severe



The HMNZS Canterbury, HMNZS Otago and HMNZS Pukaki moored in Lyttelton Harbour. (Source: New Zealand Defence Force Photo 144).

earthquake, tsunami or volcanic eruption. Any civil defence response to these events requires a cooperative and coordinated approach between New Zealand Police (NZPOL), New Zealand Defence Force (NZDF), as well as Fire Department and Urban Search and Rescue (USAR) units, and the Ministry of Civil Defence and Emergency Management (MCDEM).

The first major significant event in which NZDF units assisted with rescue and recovery operations was the Napier Earthquake in 1931. During this tragic event, some 153 people lost their lives despite the assistance given to the people of Napier by sailors of HMS VERONICA, which happened to be in Port at the time. At this time there was no contingency plan detailing how NZ troops would assist in time of

¹ While Sealers, Whalers and Missionaries were living in NZ prior to 1840, it was not until then, after the Treaty of Waitangi was signed that Europeans (primarily English), started arriving in a managed capacity.

disaster. The response to the Napier Earthquake was thus an *ad hoc* one, compared with the response to the Christchurch Earthquake in 2011. Not all significant disaster events have required military assistance (for example the train disaster at Tangiwai (1953)); however, recent domestic events such as the Christchurch Earthquake (February 2011), the Pike River Mine explosion (2010) and the sinking of the Rena (2011) have had varying levels of assistance from NZDF units, demonstrating an improved capability.

While New Zealanders have had to cope with major disaster events, her neighbours in the Pacific Islands have also had to cope with major geological and atmospheric events such as earthquake, tsunami and tropical cyclones. In the international context, New Zealand has provided assistance to countries affected by the 2004 Boxing Day Tsunami, the tsunami event in Samoa (2009) and Cyclone Pam (2015), in Vanuatu. The New Zealand Ministry for Foreign Affairs and Trade (MFAT) has stated that “Pacific Island countries – our closest neighbours - are particularly vulnerable to an array of natural hazards. These hazards can result in disasters that devastate lives and livelihoods, destroy environmental assets, severely impact economies and wipe out years of hard-won development gains.”² New Zealand will continue to provide assistance to the Pacific Region where it is necessary and work alongside such partners as France and Australia (through the FRANZ agreement), NGOs, PIC governments, the International Red Cross and Red Crescent, and United Nations humanitarian organisations.

This essay seeks to examine the nature of recent NZDF contributions to major HADR Operations in the national and regional (South Pacific) context and asserts that these contributions have been (and will continue to be) part of an All-of-Government

² New Zealand Ministry of Foreign Affairs and Trade (2012), pg. 2.

(AOG)/Comprehensive Approach (CA)³ in which the NZDF takes a supporting (yet significant) role. The case studies from which material is presented provide a national context (Christchurch Earthquake) in which the NZDF has taken an AOG approach and an international context (Cyclone Pam, Vanuatu), in which a more Comprehensive Approach has been taken. Both cases demonstrate that the NZDF is well placed to assist MFAT and the Government of New Zealand (GoNZ) in meeting the outcomes of the New Zealand Aid Programme, and assisting New Zealanders in New Zealand in their time of need.

The NZDF has been developing its capability in joint amphibious operations under its Future 35 (F35) Strategy. F35 calls for the development of a Joint Amphibious Taskforce (JATF) by 2015, and will enhance NZDF's ability to provide aid and support both in the South Pacific and at home. While there are still many lessons to learn, recent experience in Vanuatu and Christchurch has demonstrated that NZDF is capable of delivering an amphibious force that meets the needs of HADR operations.

The Comprehensive Approach

A Comprehensive Approach (CA) to operations is one in which a large number of organisations join together to provide an intended outcome. This effectively means that Government Departments, Defence Forces, Non-Government Organisations (NGO) and International Organisations (IO) team up together in a coordinated way, assisting each other to deliver assistance in (usually) a crisis situation. It requires a great deal of liaison and willingness on behalf of all players to work together. The Comprehensive Approach differs from an AOG approach in that

³ In the New Zealand Context, the terminology of All of Government is used as an alternate to the term Whole of Government.

CA includes entities which are not part of the Government running the operation, and the intent of the operation is not solely for the benefit of the Lead Nation. In an AOG approach the NGO and IO are usually absent from the planning and it is the government's direction and policy that is being enacted. AOG often requires some interoperability between government departments in respect to planning and the identification of Command and Control structures, particularly in relation to the utilisation of military forces.

How Does New Zealand Organise Humanitarian and Disaster Relief?

As a global citizen, New Zealand contributes to world disaster relief on a regular basis. MFAT is the government department responsible for managing New Zealand's AOG commitment abroad in this respect and is considered to be the Lead Agency (LA) for any event which takes place overseas, in which New Zealanders may assist. The most likely area of responsibility is in the South Pacific Region, although New Zealand has contributed to other regions in times of Disaster.⁴ MFAT has stated that "Humanitarian assistance will contribute to saving lives, alleviating suffering, maintaining human dignity and supporting sustainable recovery from emergencies."⁵ Therefore, any NZDF involvement in International crisis is managed by MFAT in the first instance, with the Pacific Division being responsible for coordinating an Emergency Task Force (ETF). The ETF brings together "people and resources from key New Zealand government agencies – including the Ministry of Foreign Affairs and Trade, Metservice and New Zealand Defence Force to respond

⁴ For example, New Zealanders have been actively assisting with the earthquake in Nepal which struck on April 25th 2015, by providing aid money, engineers and a USAR team. <http://www.aid.govt.nz/earthquake-in-nepal>

⁵ New Zealand Ministry of Foreign Affairs and Trade (2012), pg 3.

with assistance and trained personnel.”⁶ NZDF response to disasters in the Pacific are “to be instigated on request from MFAT and will be based on quickly identifying the requirement and delivering capabilities as quickly and efficiently as possible....”⁷ Furthermore, NZDF assets cannot be deployed without the formal permission of any potential host country.⁸

For any domestic event, NZDF’s role is to assist in support of the LA once requested. The most likely LA’s for a domestic event are the NZPOL, MCDEM or other Government Department such as Maritime New Zealand (MNZ).^{9,10} The legal basis for providing support during a domestic crisis is given under section 9 of the Defence Act 1990.¹¹ Regardless of who the LA is, NZPOL will maintain public security (ie: maintain responsibility for Policing in the domestic environment), but may call upon NZDF to assist.¹² Any Military units deployed in support of HADR operations in the domestic sense will usually do so “as part of a wider national AOG contribution,” but will remain under military command (through the Commander Joint Forces New Zealand (COMJFNZ)).¹³

NZDF has established three Contingency Plans (CONPLANs) for NZDF management of civil or international HADR operations. CONPLAN AWHINA provides for “NZDF operational assistance to various agencies involved in the response to both a natural or man-made disaster within New Zealand.”¹⁴ CONPLAN CAPITAL DISASTER is the plan used in the case of a major disaster in the Capital

⁶ <http://mfat.govt.nz/Foreign-Relations/Pacific/0-disasterrelief.php>

⁷ HQJFNZ 03000/11 (2010), para 8.

⁸ *Ibid.* para 11.

⁹ MNZ was the LA for OP Rena, the grounding incident on Astrolabe Reef, near the port of Tauranga in 2011.

¹⁰ NZDF (2012), Humanitarian and Disaster Relief Aide-Memoire, Para. 1.1. pg. 14.

¹¹ HQJFNZ 277/11 (2011b), para. 20.

¹² *Ibid.* pg. 14.

¹³ *Ibid.* para 1.5.1, pg. 15.

¹⁴ HQJFNZ 277/11 dated 14 December 2011. CONPLAN AWHINA (Issue 1).

City, Wellington, such that Headquarters NZDF (HQNZDF) and Joint Force Headquarters (HQJFNZ), both located in the Wellington Region, become compromised.¹⁵ CONPLAN PACIFIC RELIEF “addresses the provision of NZDF assistance to the authorities of Pacific Island Countries (PIC) in the event of a major natural disaster.”¹⁶ Any requirement to evacuate New Zealanders or other approved nationals from the affected region is dealt with under NZJSP 600: ROCKER ASSIST.¹⁷

It is as a result of recent domestic events that the NZDF Humanitarian Assistance and Disaster Relief (HADR) Aide-Memoire has been written, in order to “capture best practices through observations and lessons learned”¹⁸ from Operations PIKE, CHRISTCHURCH QUAKE and RENA. In addition to the CONPLANs outlined above, the Humanitarian Assistance and Disaster Relief Aide-Memoire is a readily available public document which outlines the “generic Concept of Operations (CONOPS) for a military response to a Government request to support a domestic disaster event in New Zealand.”¹⁹ The Aide-Memoire is designed to provide Other Government Agencies (OGA) with an understanding of military planning for HADR Operations, and “in doing so contributes to interagency understanding, coordination and effectiveness.”²⁰ This Aide-Memoire, whilst published for the domestic scene is an invaluable resource for the planning of international HADR operations. The

¹⁵ Although mentioned, CONPLAN CAPITAL DISASTER is not a focus of this essay.

¹⁶ HQJFNZ 03000/11 dated 21 October 2010. CONPLAN PACIFIC RELIEF (Issue 4).

¹⁷ *Ibid.* The CONPLAN for ROCKER ASSIST is not discussed in this essay.

¹⁸ NZDF (2012), Humanitarian and Disaster Relief Aide-Memoire, Pg. 2.

¹⁹ NZDF (2012), Humanitarian and Disaster Relief Aide-Memoire, Para. 1. pg. 13.

²⁰ *Ibid.* Para 3. Pg. 13

CONPLANs discussed here are dynamic documents and are periodically updated as a result of a Lessons Learned process.²¹

The Christchurch Earthquake, February 2011 – OP CHCH QUAKE

On February 22nd 2011, an aftershock of magnitude 6.3 rocked the Canterbury Plains near the city of Christchurch. This earthquake was an aftershock from a much larger earthquake event (7.1 Mag) which occurred on September 2010. While the 2010 quake event resulted in \$1billion of damage, and no deaths, the aftershock of February 2011, left the city devastated and 185 people (from over 30 nations) dead.²²

At the time of the February event, Christchurch had still not fully recovered from the September event; “While most services had been restored relatively few houses had

been repaired. Great uncertainty existed over

repair of houses on liquefied land and many insurance issues were unresolved.”²³ Local

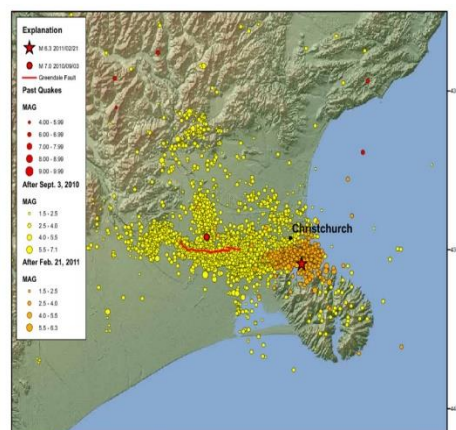
Police, Fire and Ambulance services in most cases were first on scene and a local/regional civil emergency was declared shortly after the earthquake struck. The Minister of Civil

Defence declared a state of National

Emergency on February 23rd, stating to

Parliament that “the required civil defence emergency management would be beyond the capacity of local civil defence emergency people to respond to on their own.”²⁴

Indeed, with the collapse of the CTV building, and almost total destruction of the



Location map of the 2011 Christchurch Earthquake. Source: <http://earthquake.usgs.gov/earthquakes/eqarchives/poster/2011/NZspecial.medium.jpg>

²¹ CONPLAN AWHINA (Issue 1) is dated December 2011, some eight months after OP CHCH QUAKE, however an AWHINA document existed prior to the Christchurch Quake event.

²² Rubin, 2012 pg. 41.

²³ McLean *et al* (2012), pg. 28

²⁴ *Ibid.* pg. 31

Central Business District (CBD),²⁵ along with significant damage to other major structures within the city area, and the loss of some essential services (such as sewage, power and water), the capacity for local resources and CDEM staff to cope was severely reduced. While approximately six hours after the earthquake a degree of control had been established,²⁶ McLean *et al* (2012) states that “the Government had no option but to declare a National Emergency.”²⁷ In relation to NZDF contributions to this event, MCDEM was the LA, in conjunction with the Canterbury Civil Defence and Emergency Management (CANT CDEM). Local USAR (New Zealand Fire Service) as well as USAR from USA, Japan, and Singapore, Police from Australia and Disaster Victim Identification (DVI) teams from Thailand, Israel, Australia, the United Kingdom, and Taiwan, all contributed to the disaster recovery operation.



Members of the police and USAR teams working on the site of the CTV Building. (Source: NZDF Photograph 444).

At the time of the earthquake, a number of NZDF Force Elements (FE) were deployed on exercise Southern Katipo (SK11) in the South Island.²⁸ HMNZS CANTERBURY (Sea Lift and Amphibious Support Vessel of the Royal New Zealand Navy (RNZN)) was in the port of Lyttleton, as well as HMNZ Ships OTAGO (Offshore Patrol Vessel (OPV)) and PUKAKI (Inshore Patrol Vessel (IPV)). The fact that FEs had been deployed to Lyttleton and the wider Christchurch region for SK11 allowed for an effective initial response to the event by the NZDF through the

²⁵ The CBD was cordoned off to the public for over a year, NZDF (both Regular and Reserve) personnel were heavily involved in the control of the cordon throughout.

²⁶ *Ibid.* pg 38.

²⁷ *Ibid.* pg. 32

²⁸ Operation Torque Wrench (OP TW) was taking place as part of Exercise Southern Katipo 11 (SK11).

exercise of Mission Command Principles.²⁹ The Operational Evaluation for OP CHCH Quake states that: “Mission Command is a valuable tool, which contributed to our success in delivering the effort required in the fast changing environment of the disaster and our ability to support civilian authorities.”³⁰ During the initial response phase (22 Feb 11 – 02 Mar 11), NZDF operations “focused on the provision of support to civilian organisations, providing medical, engineering, logistics, fire and Military Police (MP) support.”³¹ This support included providing evacuation centre support, port assessment and clearance, medical support (Environmental Health Support and Forward Surgical Team), reconnaissance (P3K Orion), morgue and DVI, Rotary Air support (Helicopter Operations), and water purification support. A majority of these functions were able to be provided by FEs already in position as a consequence of SK11. Had these FEs not been in position the response time for the NZDF would have been considerably longer. Upon activation of AWHINA, a more structured approach to Command and Control (C2) was utilised, and this allowed FEs to begin planning for sustainment of operations and to work more collaboratively with OGA.

The NZDF response to the Christchurch Earthquake in February 2011 (OP CHCH QUAKE) was a successful operation under the auspices of CONPLAN AWHINA. While the initial response came as a result of FEs being in the right place at the right time (in a similar fashion to the Napier Earthquake in 1931), responding using the concept of mission command, AWHINA provides adequate direction to COMJFNZ to stand up a Combined Joint Task Force (CJTF) within 12-72 hours after

²⁹ HQJFNZ (2011a) para 21-24, Executive Summary.

³⁰ *Ibid.* para 35, Section Three, Operation Christchurch Quake Observations.

³¹ *Ibid.* para. 7.

an event.³² AWHINA also provides for an NZDF response which is a coordinated Comprehensive/All-of-Government approach to HADR operations in the domestic context. “The NZDF was able to effectively support civil defence agencies in responding to the earthquake and proved to be a useful contributor supplementing the overall disaster relief response.”³³

Cyclone Pam (Vanuatu) – OP PACIFIC RELIEF 2015

The Republic of Vanuatu is a small PIC located some 2000km NNW of Auckland, New Zealand. It has a population of approximately 250,000 and has a rural based economy. Its main trading partners are New Zealand, and Australia.³⁴ In March 2015, The Vanuatu Archipelago was hit by a severe Category 5 Tropical Cyclone (TC PAM).³⁵ The cyclone lasted for several days over the islands of



Damage left behind from Tropical Cyclone Pam in Port Vila, Vanuatu, was captured in this photo by World Vision on Saturday, March 14. Source: <http://www.accuweather.com/en/weather-news/photos-deadly-tropical-cyclone/43778587>

Vanuatu, before moving south toward New Zealand. This event resulted in the deaths of 16 people³⁶ and many millions of dollars damage. The United Nations estimated that some 166,000 people were severely affected across over 20 islands by this extreme weather event.³⁷ Other affected nations included: Fiji, Kiribati, Solomon

³² Annex L to HQ JFNZ 277/11 (2011b).

³³ HQJFNZ (2011a), Para 41, Executive Summary.

³⁴ <http://www.mfat.govt.nz/Countries/Pacific/Vanuatu.php>

³⁵ Category 5 (Saffir-Simpson scale) Cyclones are the most devastating in terms of sustained power, in this case with winds of up to 270Km/hr.

³⁶ <http://www.abc.net.au/news/2015-03-21/un-raises-vanuatu-cyclone-death-toll/6337816>

³⁷ <http://www.abc.net.au/news/2015-03-21/un-raises-vanuatu-cyclone-death-toll/6337816>

Islands, Tuvalu, New Caledonia and New Zealand.³⁸ The cyclone event is considered to be one of the worst cyclone disasters in the history of the small nation.

The response from New Zealand authorities through MFAT was to provide an initial \$1million in aid money, in conjunction with a P3 Orion reconnaissance and initial damage assessment.³⁹ On March 15 the aid value was increased to \$2.5million, and aid flights (Airforce C-130) were sent to supply aid materials to Tanna Island.⁴⁰ On 19 March 2015, it was announced that HMNZS CANTERBURY would be sent to Vanuatu with aid supplies, engineering and health teams to assist in recovery efforts.⁴¹ CANTERBURY would return home in early May after some six weeks of sustained effort on behalf of the people of Vanuatu.

CONPLAN PACIFIC RELIEF is initiated by the Chief of Defence Force (CDF). Disaster Relief operations occur in five phases with a preliminary phase: Reconnaissance, Emergency Relief (Phase two), Disaster Recovery (Phase three), Re-Construction, and Redeployment. The preliminary phase allows for initial discussion with MFAT and OGA to maintain situational awareness and gain relevant permission from the Host Nation.

During the Reconnaissance phase, a broad appreciation of areas most in need is made. This is usually done from within New Zealand. Concurrently, the Intelligence Branch (J2) will conduct Intelligence Preparation of the Operations Area. If needed, a detailed reconnaissance is undertaken on the ground by the Joint Reconnaissance Team (JRT). The JRT is part of a whole of government reconnaissance and has a high degree of Notice to Move (NTM), by the fastest means

³⁸ http://en.wikipedia.org/wiki/Cyclone_Pam

³⁹ <http://www.beehive.govt.nz/release/nz-funds-1-million-cyclone-hit-pacific-neighbours>

⁴⁰ <http://beehive.govt.nz/release/nz-aid-flight-tanna>

⁴¹ <http://beehive.govt.nz/release/hmnzs-canterbury-vanuatu>

possible (including commercial flights). The JRT is a sub unit of the recently established Deployable Joint Inter Agency Task Force (DJIATF), which in turn was established as part of the NZDF F35 strategy. Currently, the deployment of DJIATF is not covered in PACIFIC RELIEF, but was utilised in Vanuatu to good effect.

Phases two and three constitute the Main Effort for FE. The length of the operation can last between 7 and 14 days (or longer depending on the severity of the emergency). All Personnel deployed are expected to be able to deploy for a period of 30 days without rotation.⁴² During this phase, HMNZS CANTERBURY proved to be a very valuable asset, and demonstrated the amphibious capability that NZDF is working towards. For example, the ability to operate both landing craft and helicopters at the same time for Logistics over the Shore (LOTS) was critical in ensuring good outcomes for the operation.⁴³ This is a capability of which New Zealand has hitherto not had the luxury. Prior to CANTERBURY's delivery, aid in such cases was delivered by C-130 Hercules aircraft, or by utilising a Frigate or commercial maritime transport. In Vanuatu, CANTERBURY was able to transport equipment and supplies to the most affected outer islands whilst also sustaining personnel. FEs were mainly employed in emergency relief and recovery efforts (through the rebuilding of basic needs infrastructure such as water supply and power, and clearing roads). Tasks were prioritised in consultation with the Vanuatu Government representatives working with the aid teams on site.

NZDF FEs were not required for phase four efforts (Re-Construction) and CANTERBURY was returned to New Zealand in late April as part of the re-deployment phase of the operation.

⁴² HQJFNZ 03000/11 (2010).

⁴³ Pers Comm, J8 Lead Collections Officer. OP PACIFIC RELIEF (Vanuatu, 2015).

While the lessons of OP PACIFIC RELIEF (2015) are still being worked up, it appears from initial reports that this HADR operation has met with success in many areas. Initial lessons indicate that the C2 structure still needs some development work and that OGA still have a poor understanding of NZDF capabilities in regards of a JATF construct.

Conclusion

The role of New Zealanders in HADR operations (particularly in the vulnerable South Pacific) is an increasing one. The pressure of climate change in particular means that the impact of severe weather on low lying, relatively poor countries in the Southwest Pacific Islands will be devastating. New Zealand is a major player in the Pacific region and stands ready to assist her neighbours in their time of need. The Christchurch Earthquake's in 2010 and 2011 are evidence that New Zealanders are also at risk of an extreme natural event near a major urban centre. Several contingency plans exist for the NZDF to allow for a quick response to a national disaster emergency (CONPLAN AWHINA), or to a regional (Southwest Pacific) disaster (CONPLAN PACIFIC RELIEF). Both plans allow the NZDF to work constructively to save lives and alleviate suffering in devastated areas and have been tested in the last five years as a result of extreme natural events having taken place.

The NZDF has established a workable Joint Amphibious Task Force capability, with JRT under the auspices of a newly instituted DJIATF. Under the respective concept plans, NZDF is required to respond at the request of a domestic LA or MFAT. While there are still some issues in marketing NZDF capability with OGA, NZDF is well placed to provide Humanitarian and Disaster Relief to Pacific

Nations and to New Zealanders when required and is able to provide this relief as part of a coordinated All of Government/Comprehensive Approach.

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