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HERALDING A NEW ERA FOR THE DISASTER ASSISTANCE RESPONSE TEAM

By / par Major Tim Radley

CONTENTS

List of Figures

ABSTRACT

The Canadian Forces Disaster Assistance Response Team (DART) is a military response option available to the Government of Canada in response to a natural disaster or humanitarian emergency anywhere in the world. While the Canadian Forces have a long history of responding to humanitarian emergencies, the DART has only been in existence since 1996. Despite four high profile deployments on the DART in response to natural disasters around the world, very little definitive work has been written on this high readiness unit. It has been criticized as being too expensive and too large to move, and there has even been questions raised as to whether it should exist at all.

This paper provides a look at why Canada has a responsibility to respond to natural disasters and humanitarian emergencies, the DART's short history, its successes and its challenges, in order to demonstrate that the DART is a valuable strategic effect capability that, to be more effective, must become more flexible. It must change its organizational structure to one that is capability based, modularized, scalable, and takes a fully integrated whole of government approach in all phases of its operation in order to prove successful in the future.

CHAPTER ONE

INTRODUCTION

On 8 October 2005, an earthquake measuring 7.6 on the Richter Scale struck Pakistan, killing nearly 75,000 people, most of them in the Kashmir region that is administered by Pakistan. In such a remote area, the effect was devastating. Many of the roads were damaged or impassable. In Muzaffarabad, the region's capital, there was extensive damage to the infrastructure: electricity, water, communications and hospitals. A large portion of the city's population of 600,000, were rendered homeless and were forced into the streets, receiving aid out of a sports stadium. Another half million people in more remote areas were even worse off, receiving no aid at all. With bad weather compounding aid efforts, warnings of the potential for epidemics spawned from contaminated water sources and danger from exposure began to emerge.[1]

In response to the call for aid, the Government of Canada made the decision to deploy the Disaster Assistance Response Team (DART) to Garhi Dupatta, Pakistan, just north of Muzaffarabad on 13 October 2005. Three days later, the DART Reconnaissance Party and Advance Party arrived in Islamabad. The DART medical clinic opened in Garhi Dupatta on 22 October and the DART initial operational capability (IOC) was declared 23 October. Full operational capability was declared the next day, with the DART capable of delivering emergency medical services and delivering water through reverse osmosis water purification units (ROWPU).[2] During its 40 day mandate, the

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[1] "Overview: Quake Aftermath." *BBC News*, 2 November 2005; http://news.bbc.co.uk/2/hi/south_asia/4322624.stm; Internet; accessed 11 January 2009.

[2] Cmdre R.D. Murphy, *Operation PLATEAU Lessons Learned Analysis Report,* Special Joint Staff Ottawa: file 3350-165/A27 (SJS Lessons Learned), March 2006.

DART provided more than 3.8 million litres of clear water and medical treatment to more than 9,600 earthquake victims.[3]

Since the DART was conceived and formed in 1996, this Canadian Forces high readiness unit has deployed four times to areas devastated by natural disasters around the world. Far more often than not, however, the decision not to deploy the DART is made by the Government of Canada. Why is it that sometimes the DART is deployed and other times it is not? Why, as in the case presented above, does it take five days after the disaster for the Government of Canada to make a decision to deploy it and why does it take so long, 14 days here, to get the DART deployed and functioning at IOC? While the answers to these questions may seem obvious in hindsight, much criticism has been raised on the value and need for the DART. This criticism has come from Non-Governmental Organizations (NGOs) citing their claim of responsibility and ability to better respond to these disasters, to the media who question the limited usefulness and high cost of such deployments and the perception that it takes so long for them to arrive. This paper will show that the DART is a valuable strategic effect capability that, to be more effective, must become more flexible. It must change its organizational structure to one that is capability based, modularized, scalable, and takes a fully integrated whole of government approach in all phases of its operation.

Four main themes that are both distinct and interrelated will be examined in this paper. The first theme to be examined is why Canada must respond to a natural disaster that takes place outside of domestic boarders, with the main focus being on national

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[3] Adnan R. Khan, "Soldiers of Good Fortune." *Maclean's Magazine*, 12 December 2005: 28; http://www.proquest.com; Internet; accessed 11 January 2009.

interests. The next theme looks at whether the concept of the DART is viable, or more succinctly, how it fills a need in Canada's disaster response. This examination begins with an overview of what the DART is, then looks at why it has deployed, why it has not deployed, and finally why it should deploy. The third theme is the organizational structure of the DART, where the concepts to be examined are: modularization, capability packaging, scalability, and the use of contracting or outsourcing. Following the organizational structure, the Whole of Government theme is examined. This theme has seen steadily increasing prominence in all Canadian Forces deployments and is examined here to ascertain the benefits of such an approach and how it can be incorporated into all phases of the DART deployment to increase both the strategic and tactical effect of its employment. This paper concludes with specific recommendations derived from each of the themes.

DEFINING DISASTERS

Before examining the major themes of this paper, it is first necessary to set the context in which the themes will be examined. While it may seem that a common understanding of a disaster is readily accepted, there is a requirement to ensure that a single definition is used in throughout this paper. The Oxford English Dictionary defines disaster as "a sudden accident or a natural catastrophe that causes great damage or loss of life."[4] While this gives an adequate definition of the word, it does not provide sufficient clarity to what a disaster really is. This clarity is provided by Charles Fritz, whose definition of disaster will be used for the purpose of this paper:

[4] Catherine Soanes, *The Pocket Oxford English Dictionary*. 9th ed. (New York: Oxford University Press, 2002), 252.

> actual or threatened accidental or uncontrollable events that are concentrated in time and space, in which a society, or a relatively self-sufficient subdivision of a society undergoes severe danger, and incurs such losses to its members and physical appurtenances that the social structure is disrupted and the fulfillment of all or some of the essential functions of the society, or its subdivision, is prevented[5]

Using this definition as a starting point, Henry Fischer in writing about the impact of disasters on the social interactions of populations outlined how the scale, scope and duration of a disaster relate to the disruption caused by it and the social structure adjustment that results. The key element in this line of thought is that the greater the scale or severity of the destruction, and the scope or how widespread the resulting disruption the greater the duration or time that it takes to effect recovery of the area.[6]

Before looking at how social structures play into recovery and aid strategies, it is first necessary to understand the four periods that are common to all disasters: the impact period, the immediate post-impact period, the recovery period, and the reconstruction period. Perhaps most obvious, the impact period is characterized by the disastrous event, whether natural or accidental in nature, and is typically short in duration. This period is also considered the most dangerous and can be mitigated only if sufficient planning and warning have been available. The immediate post-impact period follows with the initial realization and assessment of the destruction caused by the event. At this point, survivors are aided by local emergency response organizations, whether state or nationalized efforts such as police, firefighters, and the military or by non-governmental organizations (NGOs) such as *Medicines sans frontiers* and the International Federation of the Red

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[5]Henry W. Fischer, *Response To Disaster : Fact Versus Fiction & Its Perpetuation : The Sociology Of Disaster* (Lanham, Md.: University Press of America, 2008), 3.

[6]*Ibid*., 5.

Cross (IFRC). This period is characterized by search and rescue activities, initial clearance of debris and the restoration of some essential services. Media attention during this period is typically wide-spread, ranging from local to global in nature and nearly continuous in coverage, depending on the severity of the event. This period blends into the recovery period, where essential services are completely restored and a sense of normalcy begins to return to the affected region. The reconstruction period is next, and can often last the longest, extending for years in some cases as this involves rebuilding the damaged and destroyed infrastructure caused by the disaster.[7]

[7] *Ibid*., 16.

CHAPTER TWO

WHY CANADA MUST RESPOND TO NATURAL DISASTERS

With the definition of disaster, combined with an understanding of the different periods common to all disasters, it is useful to consider how the social aspect of disasters apply and why this must be considered when determining whether aid should be sent. The first question that must be answered is: Why should Canada send aid to a natural disaster? In answering this question, it is necessary to consider national values and national interests. This also entails considering how failed and failing states are affected by natural disasters.

Is the fact that a nation does not have sufficient resources to deal with a natural disaster sufficient in itself for Canada to send aid? The simple answer is no. This is an answer that must be qualified, however. There are times when it is neither effective nor prudent for Canada to send aid in response to a disaster. The reasons for not sending aid may include the fact that neighboring nations have the will and ability to respond faster and more effectively, or perhaps there is a political reason that prevents a response. While the political considerations inherent in the decision on whether or not to respond will be covered in Chapter Five of this paper, the important point to consider now is why Canada should respond. Understanding why aid should be sent will be refined in the following two themes: national values, and national interests. While examining these two themes, aid will be defined as any response whether in the form of moral support, financial contributions, the provision of manpower and capabilities or any combination thereof.

National values are those values that the people of a nation espouse and are reflected in the foreign policy decisions made by the government. In Canada, national values are reflected in the 1995 foreign policy White Paper, where "…values are clearly stated to be: respect for the rule of law, democracy, human rights, and the environment."[8] Indeed, the impact of national values on international policy has not only remained a considerable influence throughout the last 60 years, Canada's foreign policy has been and continues to be a reflection of these Canadian values. Canada's current commitment to the principle of values in the development of foreign policy is clearly stated as a priority by the Department of Foreign Affairs and International Trade, where Canada's ongoing commitments call for "[g]reater international support for freedom and security, democracy, rule of law, human rights and environmental stewardship."[9] While it may appear that there is only a tenuous link between disaster response and Canadian foreign policy when looking only at words such as rule of law and environment, a much stronger link does actually exist. The values of respect for rule of law, democracy and human rights are all components of the larger concern for human security, which is seen in the 1994 United Nations Development Programme (UNDP), where human security means safety from chronic threats such as hunger, disease and repression.[10] The UNDP further identifies human security as "protection from sudden and hurtful disruptions in

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[8] W.D. Macnamara and Ann M. Fitz-Gerald, "A National Security Framework for Canada," in *Geopolitical Integrity*, ed. Hugh Segal, (Montreal: The Institute for Research on Public Policy, 2005), 87.

[9] Foreign Affairs and International Trade Canada, "Government of Canada "key" priorities for the Department's active support," http://www.international.gc.ca/about-a_propos/priorities.aspx?menu_id=18&menu=L; Internet; accessed 6 November 2008.

[10] United Nations Development Programme, "New Dimensions of Human Security," in *Human Development Report 1994* (New York: Oxford University Press, 1994), 23.

the pattern of daily life,"[11] which impacts the Canadian values of rule of law and environment. The impact of human security cannot be ignored. Jack Goldstone, in writing about how the environment could have an effect on conflict, commented that "short term disasters…can contribute to major political conflicts if elites and popular groups blame the regime for causing, or for a particularly poor or corrupt response to, such disasters."[12] Canada, by virtue of its national values and stated foreign policy, must respond to such disasters. This conviction by Canada to act on the world scene in the promotion and protection of national values is best seen in Paul Martin Jr's "… landmark principle of the 'responsibility to protect'"[13], a principle that, in three words, articulates Canada's international responsibilities. This principle continues to be a prominent theme in the current Harper government as well. On his first visit to Afghanistan in March 2006, Harper is quoted as declaring "Canada is not an island. We live in a dangerous world. And we have to show leadership in that world…."[14] This clear statement from the prime minister highlights not only Canada's willingness to accept international responsibility, but to accept a leadership role in that responsibility. It is clear that Canada, in reflecting national values, has an obligation then to provide aid in response to a disaster.

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[11] *Ibid*., 23.

[12] Jack A. Goldstone, "Demography, Environment, and Security," in *Environmental Conflict*, ed. Paul F. Diehl and Nils Petter Gleditsch, (Boulder: Westview Press, 2001), 87.

[13] John Kirton, *The Rule of Law from the Gray Lecture to Global Leadership*, Paper prepared for a conference on "Louis St. Laurent's Gray Lecture at Sixty," (Bishop's University, Lennoxville, Quebec, January 19-21, 2007), 2.

[14] John Kirton, "Harper's 'Made in Canada' Global Leadership," in *Canada Among Nations 2006: Minorities and Priorities*, ed. Andrew F. Cooper and Dane Rowlands, (Montreal & Kingston: McGill-Queen's University Press, 2006), 40.

National interests also play a key role in necessitating Canada's response to disasters, especially when considering failed and failing states. A failed state can be characterized by economic breakdown, suffering from cycles of violence, and an inability of the government to relieve their peoples suffering or deal with their grievances.[15] By its very definition, when a failed state suffers a natural disaster, there is very little, if any, capability of its government to respond. Citing Goldstone's argument above, this inability to adequately deal with a disaster could result in further internal strife and grievance, leading to an increased potential for conflict. The same can be said of a failing state, where the potential to enter into internal conflict could be exacerbated by a governments inability to provide the basic essentials of life. Holsti, in his writings on failed and failing states, would characterize this as failure to meet the social contract between the government and the citizens.[16] This social contract implies that the government provides security and basic essentials such as food, water and shelter in emergencies and in return the citizens provide loyalty and authority to the government. With this social contract broken, the potential for grievance to be voiced in the form of conflict is increased if there is no ability to empower the grieving community.

A state that has failed typically no longer has the ability to provide internal security which further aggrieves the situation. As has recently been seen following the devastating hurricane in Haiti, the earthquake in Pakistan and the tsunami in Indonesia, the inability of the state to provide effective security can have a destabilizing effect on the region and has required the international commitment of troops, including Canadian,

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[15]Marla C. Haims, David C. Gompert, Gregory F. Treverton and Brooke K. Stearns, *Breaking the Failed-State Cycle*," (Santa Monica, CA: RAND Corporation, 2008), 2.

[16] Kalevi Holsti, "The State, War, and the State of War," (Cambridge: Cambridge University Press, 1996), 109.

to implement and promote that internal security. In assisting with the internal security of a failed or failing state, Canada is helping to prevent regional destabilization, which in turn reflects positively on Canadian national security. Responding to natural disasters is therefore in support of national security and is a reflection of Canadian values as expressed in foreign policy statements.

In discussing how national interests are a driving force in responding to a natural disaster, it must be remembered that the impact on the society in how the host nation responds to the disaster, especially in a failed or failing state, can result in civil unrest. The corollary to this is provided by Henry Fischer, whose research has shown that in the immediate post-impact period of a disaster that the local population will pull together and help each other. Where the disaster is beyond the means or capacity of the local populace, the response required is governmental. Even where the government of a nation can adequately respond to a disaster, an international response may still be required in order to augment or provide specialist capabilities. In some countries, accepting international response may be limited to financial aid. When providing aid to such a country, it may be necessary or prudent to place limitations on the aid in order to leverage the promotion of national values or security and to ensure that the aid actually reaches those for whom it is intended.

Dating back as early as 4 April 1949, it was recognized and articulated in Article 2 of the Charter for the North Atlantic Treaty Organization (NATO) that there was a need to promote conditions of stability and well being. This recognition was further refined in 1958 when the NATO Committee on the Challenges of Modern Society (CCMS) determined to update North Atlantic Council (NAC) policy document on “NATO

Cooperation for Disaster Relief in Peacetime."[17] In 1970, the NAC approved the Disaster Assistance Program as part of the effort put forth by the CCMS. While NATO's emphasis was initially focused on member states, it was also asserted by General George A. Lincoln, Director of Emergency Preparedness in the United States, that NATO had far greater resources and capability to respond to disasters than other organizations when NATO members act in concert with other NATO members.[18] Recognized so many years ago, the fact still remains that while most countries have plans on how to deal with natural disasters, the scale can be such that national resources are not enough and funding for many aid organizations is severely limited.[19]

Responding to a disaster is therefore in support of Canadian national interests and a reflection of national values. Ensuring an adequate and appropriate response to disasters can help to reduce additional friction that could arise in a failed or failing state as a result of a disaster, and is therefore in the interests of the international community and Canada to respond to disasters outside of national boarders. Accepting that responding to a disaster is in the interests of Canada, the question that now must be answered when looking at the possible choices for response is does the DART make a viable option for the Government of Canada, and more succinctly, is the DART a viable concept.

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[17] John Gange, "NATO's Approach to Natural Disaster Relief," *Mass Emergencies* Vol. 1, no. 1 (October 1975)[journal on-line]; available from http://www.massemergencies.org/v1n1/Gange_v1n1.pdf

[18] *Ibid*.

[19] United Nations Development Programme, "New Dimensions of Human Security," in *Human Development Report 1994* (New York: Oxford University Press, 1994), 22-46.

CHAPTER THREE

VIABILITY OF THE DART AS A CONCEPT

Accepting that, in keeping with national values and interests, Canada must provide a response to natural disasters, this chapter will focus on the viability of one of the instruments that the government has at its disposal in response to such a disaster. This instrument is the Disaster Assistance Response Team (DART). In terms of military capability, the DART is a relatively new concept that pulls together specific skill sets and capabilities to respond to disasters anywhere in the world. This chapter will show that the DART is a viable capability. To better understand this capability, an overview of the DART organization, including: the origins of DART, its basic capabilities, how it is activated, and the fundamental guiding principles for its employment will be presented. Following this overview, the focus will then shift to examine the viability of the DART as a capability. This viability will be demonstrated through the use of three case studies: two where the DART deployed; and, one where it did not deploy. These case studies show that the DART has been effective on deployment and that it could have been effective had it been deployed where it was not. This examination will consider key criteria for comparison, both in the case of deployment and non-deployment. This chapter will conclude with an examination of why the DART, as a capability, should be deployed in the future.

The DART can credit its inception to the lessons learned from the Canadian Forces (CF) deployment in support of humanitarian aid to RWANDA in 1995.[20] As a

[20]Canadian Soldiers, "International Missions," http://www.canadiansoldiers.com/internationalmissions/internationalmissions.htm; Internet; accessed 14 February 2009.

result of this deployment of 247 service personnel, the CF recognized the need for a rapidly deployable capability that was able to provide purified water and a medical facility.[21] While the DART is not a formed unit in the CF, it does have a high readiness headquarters staff dedicated to it as part of the Canadian Forces Joint Headquarters, located in Kingston, Ontario. The DART draws its 210 personnel predominately from within the Chief of the Land Staff, Canadian Forces Operational Support Command and the Canadian Forces Expeditionary Command. The remaining augmentees are specialist advisors. While the bulk of the DART company and its advance party are maintained at a readiness of 48 hours notice to move, the reconnaissance team is at 24 hours notice to move. The mandated deployment capability of the DART includes the ability to provide a medical station for primary medical care that is able to treat up to 300 patients each day, and to provide potable water at the rate of 50,000 litres each day with an expansion capability of up to 200,000 litres per day. The DART is designed to be self-sufficient, typically deploying with 14 days of food, water and medical supplies; and 40 days of general supplies. A typical DART deployment is expected to last 40 days.[22]

Deployment of the DART can be triggered either by a request from the United Nations, by an individual nation that has suffered a disaster, or it can be offered by the Government of Canada to such a country. Ultimately, regardless of who requests it, the decision to deploy the DART will be made by the Government of Canada based on a recommendation by the Department of Foreign Affairs and International Trade (DFAIT),

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[21]National Defence, "Disaster Assistance Response Team (DART)," http://www.cfjhq.forces.gc.ca/dart/main_e.asp; Internet; accessed 7 November 2008.

[22] LGen J.C.M. Gauthier, *CEFCOM CONPLAN 20851/06 GRIFFON – Deployment of the Disaster Assistance Response Team*. Canadian Forces Expeditionary Command: file 3301-5-2 (J5), 20 December 2006.

in consultation with the Department of National Defence and the Canadian International Development Agency (CIDA). Any decision to deploy the DART will take into account the suitability of the DART to the task in terms of capability, funding, availability, transportation and accessibility to the disaster. Generally, if a non-government organization (NGO) can accomplish the mission more cost effectively, DART will not be deployed.[23]

The decision to deploy DART is not to be taken lightly. It is a one of a kind resource in the CF's inventory and, once it has been deployed, it will take 21 days after the deployment ends before it is reconstituted and available for use again. This capability is not for all disasters either, it is designed for a permissive environment and it cannot function in a chemical, biological, radiological or nuclear (CBRN) environment. Nor is the DART meant to deploy in the immediate post-impact period. Rather, the focus is on the recovery period where the aim is to assuage the secondary impacts of the disaster such as injuries resulting from it and in reducing the risk of disease and illness spread through inadequate sanitization and drinking water.[24]

While understanding the limitations on where and how the DART can be employed, along with its basic capabilities, the fact remains that it has been deployed only four times in the last ten years. There have been numerous natural disasters that have occurred since its inception, and that have required significant international aid, however it has not been deployed far more often than it is has been. In order to determine if DART is a viable capability as a response by the Canadian Government to a

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[23] National Defence, "Disaster Assistance Response Team (DART)," http://www.cfjhq.forces.gc.ca/dart/main_e.asp; Internet; accessed 7 November 2008.

[24] *Ibid.*

natural disaster, its past performance in the aftermath of the 17 August 1999 earthquake in Turkey and the 8 October 2005 earthquake in the Kashmir area of Pakistan will be assessed. The potential performance of the DART, had it been deployed in the aftermath of the 26 January 2001 earthquake in India, will then be assessed.

In order to measure the effectiveness of the DART in these four case studies, the criteria of time, deployment location, operational capability, and the perception of its effectiveness and necessity will be used. Time as a criteria, refers to the timeliness of the deployment. It includes intangibles such as: was it authorized to deploy at the appropriate time to meet the needs of the disaster, and did it begin operation soon enough to provide effective relief. Deployment location looks at where, in terms of the disaster, it was deployed. In the three cases presented, the state of the infrastructure will be examined. The reliance on outside agencies for support such as transport into and within the theatre of operations will also be reviewed. Perception of the DART is exactly that: how did the host nation, NGOs and the Canadian public perceive the deployment. The final criteria to be examined is whether the DART filled a void that otherwise would have existed, if even for a short period of time. While the criteria of filling a void is easily applied to the first two case studies, it can similarly be determined that there was a void that could have been filled had the DART been deployed. The comparison will be made using a combination of resources, with heavy reliance on documentation from OCHA, IFRC, *Medicines sans frontiers* and the media.

CASE STUDY 1 – 1999 EARTHQUAKE IN TURKEY

The first case study to be examined that looks at DART as a conceptually viable capability is the 17 August 1999 earthquake that occurred in Turkey. Centered at Izmit,

approximately 110 kilometers east of the Turkish capital of Islamabad, the quake struck this highly industrialized and heavily populated urban area at 0301 hours local. Thousands of buildings collapsed and much of the industrialized infrastructure was destroyed. While the official death toll of the quake is listed at 17,217 with another 43,959 people injured, the true toll is believed by many to have been as high as 45,000 dead and as many injured. More than 170,000 houses were severely damaged or destroyed and at least six thousand buildings were in similar discord. An estimated half million people were left homeless, lacking the essentials of food, potable water and sanitation.[25]

The scale of the destruction prompted the Government of Turkey to declare a state of emergency on 17 August 1999, and their plea for international assistance drew responses from around the world. The International Federation of the Red Cross and Red Crescent (IFRC) issued a preliminary appeal the same day.[26] By the following day, the IFRC had come to the realization that the sheer magnitude of the disaster was overwhelming local hospitals and health facilities, and mobilized two medical emergency response units (ERU), one from Norway and one from Germany. This was followed by a subsequent water and sanitation ERU being sent on 8 September.[27] All response

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[25] Wikipedia. "1999 Izmit Earthquake." http://en.wikipedia.org/wiki/1999_%C4%B0zmit_earthquake; Internet; accessed 14 February 2009.

[26] Relief Web. "Turkey : Earthquake Preliminary Appeal No. 19/99." http://www.reliefweb.int/rw/srch.nsf/doc304SearchResults?OpenForm&query=&view=rwrwb&dt=%22Appeals%22&emid=EQ-1999-0268-TUR&offset=0&hits=50&sortby=rwpubdate&sortdirection=descending&mode=simpleall; Internet; accessed 28 February 2009.

[27] Relief Web. "Turkey : Earthquake Situation Report No. 1." http://www.reliefweb.int/rw/srch.nsf/doc304SearchResults?OpenForm&query=&view=rwrwb&dt=%22Appeals%22&emid=EQ-1999-0268-TUR&offset=0&hits=50&sortby=rwpubdate&sortdirection=descending&mode=simpleall; Internet; accessed 28 February 2009.

activities by the IFRC were coordinated by the Turkish Red Crescent Society, an organization of some 2,000 with access to a wide variety of relief items.

Bilateral contributions from more than forty countries, including Canada, were accepted by the Turkish government following their call for international assistance on 17 August.[28] As part of these bilateral contributions, nineteen countries deployed mobile hospitals of various sizes and capabilities. Due to the high summer temperatures, the survival rate of victims trapped in the rubble was only anticipated to be around four days, thus the immediate post impact period in which search and rescue would prove effective was quite short. It is noteworthy however, that much of the bilateral contribution was in the form of search and rescue.[29] Following the immediate requirement for search and rescue, priority then shifted to the provision of medical treatment for those injured in the disaster, the control of potential disease epidemics and the provision of clean water and shelter. The focus would very soon turn to the requirement for winterized shelter for the homeless.[30]

The answer to the Government of Turkey's request for assistance was not just in the form of bilateral commitment rather the call was also answered by more than 260 NGOs and 12 international governmental organizations (IGOs). Important in understanding this response to the earthquake is that of the 12 IGOs that were active in Turkey, eight of them provided indirect services and another two provided both indirect and direct services. In other words, the IGOs were predominately providing management

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[28] Relief Web. "Turkey : Earthquake Preliminary …."

[29] Jacqueline S. Ismael and Shereen T. Ismael, "The International Humanitarian Response to Natural Disaster: A Case Study of the Turkish Earthquakes," *Review of International Affairs*, Vol. 1, Issue 3 (Spring 2002), 79.

[30] *Ibid.*, 71.

services to coordinate the humanitarian assistance. The actual manpower was provided through the bilateral contributions and the NGOs.[31]

Canada was very quick to respond to this disaster. The plea for international assistance enabled the Government of Canada to make a rapid decision to deploy the DART, a decision that was made on 18 August 1999. The Canadian Forces had already initiated planning for a potential response involving the deployment of the DART the previous day. This advanced planning resulted in the first of the six AN-124 ANTONOV aircraft flights contracted to carry the DART to Turkey being able to depart from 8 Wing Trenton on 20 August. The following day, 150 members of the team departed Trenton on a Canadian Forces CC150 POLARIS. The early decision by the Government of Canada to send the DART, combined with the CF initiating planning as soon as the disaster was known, resulted in the DART being able to conduct partial operation in Turkey on 23 August and being declared fully operational the next day.[32] The DART had deployed half way around the world and was operational in only seven days. The Canadian bilateral assistance was named Operation TORRENT and the DART formed the nucleus of the task force in Servidan, a suburb of Adapazari and only 50 kilometers from the epicenter of the quake. It was an area significantly devastated, with little functioning infrastructure remaining.

In comparison, the Government of Japan, which has significant experience in earthquake response, deployed a disaster relief team consisting of a 37 member rescue team and a 16 member medical team. This disaster relief team arrived on 18 August and

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[31] *Ibid.,* 78.

[32] LGen R.R. Henault, *Operation CENTRAL/TORRENT Lessons Learned Staff Action Directive (LLSAD).* National Defence Headquarters Ottawa: file 3350-165/C33 (DLLS), 1 March 2000.

was expected to conduct operations for approximately two weeks during the immediate post-impact period. Two days latter, the Japanese decided to deploy a lifeline rehabilitation team to Turkey, expecting it to arrive and begin its two weeks of investigation and advising on lifeline issues around 25 August. A second medical team was to be deployed on 27 August, which, unlike the first team that was providing immediate medical attention in support of the search and rescue operations, would be providing pediatric and internal medicine treatment similar to what the DART was already providing.[33]

The Japanese, like many of the other bilateral contributing nations, provided their medical relief teams to work within the existing infrastructure, and most nations sent only capabilities for search and rescue. The only comparable response to Canada's contribution, in terms of mobile medical facilities, were provided by Israel, Egypt, France, Greece, Italy, Spain, the Ukraine and the United States. The only nation that faced similar geographical distance challenges as Canada was the United States, who deployed three warships, over 2,000 marines and hospital ship on 19 August.[34] The speed with which Canada was able to arrive in Turkey can also be attributed to the fact that commercial air traffic was still flowing into the country, allowing relief organizations to respond. Unfortunately, the Turkish Red Crescent Society, which had access to considerable relief items and which was coordinating the IFRC activities in Turkey, had

[33] Ministry of Foreign Affairs of Japan, "Emergency Aid to Turkey for Earthquake Disaster Relief," http://www.mofa.go.jp/announce/announce/1999/8/818-1.html; Internet; accessed 18 February 2009.

[34] Stephen Kinzer, "Turkey's Political Earthquake," *Middle East Quarterly*; Vol. 8, Issue 4 (Fall 2001), 41.

little visibility over all the NGOs and individual relief efforts.[35] The main problem in the early efforts to coordinate relief efforts lay with the Government of Turkey and the Turkish military, both of whom seemed paralyzed and unresponsive at first.

The IFRC accepted that the bilateral contributions of military and medical support to the disaster were short term emergency responses that would be withdrawn as soon as practicable. In return, plans were made by the IFRC for the medical ERU from Norway to be operated under the Turkish Red Crescent, by local teams, for more than six months.[36] The medical ERU from Germany was to be handed over to the Turkish Red Crescent for operation by the end of November and the Austrian water and sanitation ERU was to be operational until at least November.[37] Canada, in keeping with the principle that the DART should only be used to fill a void and not to infringe on the capabilities of the NGOs and IGOs, planned a similar exit strategy.

In a country subjected to numerous earthquakes throughout its history and having suffered over 50,000 deaths as the result of quakes in the thirty years leading up to this disaster, "the fact that the most recent quake still managed to catch the country's political and military leadership almost totally unprepared has provoked a swelling chorus of uncharacteristic [Turkish] public outrage."[38] When faced with such scale of disaster, the nation's military is expected to respond to the plight of its citizens, rising above their own

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[35] Relief Web. "Turkey : Earthquake Appeal (19/99)." http://www.reliefweb.int/rw/srch.nsf/doc304SearchResults?OpenForm&query=&view=rwrwb&dt=%22Appeals%22&emid=EQ-1999-0268-TUR&offset=0&hits=50&sortby=rwpubdate&sortdirection=descending&mode=simpleall; Internet; accessed 28 February 2009.

[36] *Ibid.*

[37] *Ibid.*

[38] Barry Came and Laurie Udesky, "Wounds and Nightmares," *Maclean's Magazine*, Vol 112, Issue 36, 6 September 1999; http://www.proquest.com; Internet; accessed 18 February 2009.

circumstances. Kinzer, in writing about his observations in Turkey immediately following the disaster, notes that "among the most memorable [images] were ... military rescue workers racing frantically to dig out officers lying under the debris of a naval base while ignoring the plight of anguished civilians outside the gates."[39]

In their work on international humanitarian response to natural disasters, Jacqueline Ismael and Shereen Ismael observe that whereas IGOs tend to provide managerial capabilities for coordinating humanitarian aid, it is the bilateral contributions that tend to heavy on the provision of manpower.[40] By virtue of the DART being a military organization with key linkages to the federal government, it successfully lined the provision of manpower with coordination of effort. It was able to integrate into the relief effort and coordinate at the appropriate level to accomplish its mission. This integration was with both the UN, as the lead relief agency, and Pakistan through the Canadian Ambassador.

While the Turkish government assessed that the hospitals in Istanbul were able to cope adequately with the disaster and noted that only one hospital had collapsed in Adapazari, the general population was wary of remaining infrastructure and frightened to enter them, especially until they could be properly inspected. Important to note however is that the perceived ability of the existing hospitals to cope was based on the fact that, unlike most quakes that result in five casualties for every death, this disaster resulted in a

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[39] Stephen Kinzer, "Turkey's Political Earthquake," *Middle East Quarterly*; Vol. 8, Issue 4 (Fall 2001), 45.

[40] Jacqueline S. Ismael and Shereen T. Ismael, "The International Humanitarian Response to Natural Disaster: A Case Study of the Turkish Earthquakes," *Review of International Affairs*, Vol. 1, Issue 3 (Spring 2002), 78.

more manageable one to one ratio.[41] Despite the fact that the Turkish Health Minister was quoted as saying that the country really didn't need the assistance that was pouring in, the DART still managed to treat over 5,000 patients in its forty days of operation, a clear indication that they filled a need that existed.

Having shown that the deployment of the DART was effected rapidly and in keeping with other bilateral contributors, how the deployment was received and perceived, both in Turkey and internationally, is very interesting. The positive light in which the DART was received is seen more than in just the medical services provided and the manpower assistance in raising tents for sheltering those left homeless, it is reflected in the engineering expertise applied to re-instating the water treatment plant in Serdivan and in planning the water distribution and sanitary waste system for the temporary housing to be effective for up to three years.[42] This positive light is further reflected in current Canada-Turkey relations, where in recent years there has been an expansion in the depth and variety of bilateral links, all tracing back to the DART deployment.[43]

CASE STUDY 2 – 2005 EARTHQUAKE IN PAKISTAN

The second case study to be considered, and which also involved the deployment of the DART, is the 8 October 2005 earthquake in Pakistan. Striking at 0850 hours local, the quake was centered in Muzaffarabad, the capital of Pakistan controlled Kashmir, and

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[41] Antony G. Gilles, *et al*, "The August 17, 1999, Kocaeli (Turkey) Earthquake – Lifelines and Preparedness." *Canadian Journal of Civil Engineering*, Vol. 28, 2001.

[42] *Ibid.*

[43] Foreign Affairs and International Trade Canada, "Canada – Turkey Relations," http://geo.international.gc.ca/cip-pic/geo/turkey-bb-en.aspx; Internet; accessed 6 November 2008.

registered 7.6 on the Richter Scale.[44] The last major quake to hit the region was in 1935, which resulted in approximately 30,000 deaths. As a result of the long time between major earthquakes in the region, there was no planning or preparation in place for an earthquake response nor was there a central authority identified for disaster management.[45] The result for the Kashmir region was devastating. More than 73,000 people were killed in the quake and nearly 70,000 were injured. Compounding this human suffering were some 3.3 million people that were left homeless.[46] Infrastructure was destroyed over a wide area, including water and sanitation networks. Approximately 400,000 homes were destroyed, as were some 230 health facilities and a large number of government buildings. Add to this the deaths of hundreds of doctors, and the government and community leaders who would normally have spearheaded the relief efforts and the magnitude of the disaster begin to take shape.[47]

The high altitude of the Kashmir region also played a major factor in hampering the relief efforts, when coupled with the destruction of numerous roads and bad weather.[48] Despite the fact that over one hundred international organizations had responded to the disaster and attempted to provide relief, there were still tens of

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[44] Alpaslan Özerdem, "The mountain Tsunami: afterthoughts on the Kashmir earthquake," *Third World Quarterly*, Vol. 27, Issue 3 (Apr 2006), 397.

[45] Sharon Wiharta, *et al*, *The Effectiveness of Foreign Military Assets in Natural Disaster Response: A Report by the Stockholm International Peace Research Institute* ,(Sweden: Elanders, 2008), 108.

[46] Alpaslan Özerdem, "The mountain Tsunami: afterthoughts on the Kashmir earthquake," *Third World Quarterly*, Vol. 27, Issue 3 (Apr 2006), 397.

[47] United Nations Office for the Coordination of Humanitarian Affairs. "South Asia Earthquake." *OCHA Annual Report 2005*. http://ochaonline.un.org/OCHA2005/PT%20IV%20earthquake.htm; Internet; accessed 14 February 2009

[48] United Nations Emergency Coordination Centre, Islamabad, "South Asia Earthquake: Two Weeks on Humanitarian Community works Together in Coordinated Relief Operation," *Press Release*. 22 October 2005; www.un.org.pk; Internet; accessed 17 December 2008.

thousands who had been injured and had yet to be treated nearly three weeks after the quake had struck. By this point in time, estimates had raised the number of victims requiring life-line assistance (food, water, sanitation, shelter and medical care) to more than two million.[49] Unfortunately for the victims of the quake, there was a general lack of reliable information concerning the scale and severity of the disaster. This information gap resulted in a significant underestimation of the devastation by both humanitarian organizations and the military, which further contributed to a delay in widespread response. Compounding this further was generally poor information sharing and a lack of clarity over landing rights at the airport, which caused additional minor delays in foreign military relief capabilities becoming operational.[50]

Not withstanding the complications in understanding the severity of the disaster, the Government of Pakistan can be credited with responding quickly in mobilizing military and civilian authority resources. The Pakistani response to the disaster was also institutional; centered on the military for planning and execution. The lack of information at the onset of the disaster resulted in the formal request for international assistance not being made until 10 October 2005, two days after the quake. Despite this delay, humanitarian organizations, both national and international, had already begun deploying search and rescue emergency teams, and staffs to coordinate their activities. With the rescue efforts underway, the provision of shelter for the homeless and the need for medical facilities were rapidly becoming primary concerns. This concern continued to mount as there was a general understanding that the longer the wait for basic medical

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[49] United Nations Office for the Coordination of Humanitarian Affairs, "Humanitarian Appeal: South Asia Flash Appeal 2005 – Earthquake," South Asia Flash Appeal 2005 - Earthquake; Internet; accessed 1 March 2009.

[50] Sharon Wiharta, *et al, The Effectiveness of Foreign Military Assets…,* 33.

assistance, the greater the risk of life-threatening disease. In order to maximize the relief efforts, the United Nations (UN) formed a number of clusters[51] to coordinate the activities of the NGOs, IGOs, government agencies, foreign military assistance and private donors. The clusters were designed to reduce the fragmentation and duplication of efforts.[52]

The destruction from the quake resulted in damaged and blocked roads that left large parts of the region inaccessible. More than thirty days after the quake, there were still 41 reported villages that had not yet been accessed by search and rescue teams, let alone humanitarian relief efforts. The terrain and weather proved to be the main logistical challenges in the provision of relief. Countries such as China, Japan, Russia, Turkey and the United Kingdom (UK) were quick to respond to the disaster, but were faced with significant difficulties in getting to many areas.[53] This roadblock in the logistical chain emphasized then need for helicopters as part of the international response. Unfortunately, this response was limited and delayed in arriving. Only the US were able to release eight helicopters to help transport food and water just three days after the quake, this despite the proximity of the multinational forces in Afghanistan. While the populace viewed the delay of the helicopters arriving in Pakistan with disappointment, the arrival of NATO helicopters caused a backlash amongst opposition parties who expressed their suspicion over the deployment of foreign militaries as part of the disaster

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[51] Cluster. The UN Cluster system is simply a mechanism whereby the division of labour is grouped by functional areas. The idea is to gain the maximum potential benefit from joint civilian and military actors.

[52] United Nations Emergency Coordination Centre, Islamabad, "South Asia Earthquake: Two Weeks on Humanitarian Community works Together in Coordinated Relief Operation," *Press Release*, 22 October 2005; www.un.org.pk; Internet; accessed 17 December 2008.

[53] Alpaslan Özerdem, "The mountain Tsunami: afterthoughts on the Kashmir earthquake," *Third World Quarterly*, Vol. 27, Issue 3 (Apr 2006), 401.

response.[54] Pakistan's President Musharraf responded to these critics by asking: "Why criticize NATO or other forces, they are here to help us."[55] Unfortunately, the slow response and numerous shortcomings led to public criticism and anger, and inflamed the general mistrust by the people of Pakistan in their government's ability to effectively deal with the disaster.[56]

Almost two weeks after the quake, the IFRC had eight ERUs in the region, only four of which were operational. Two of those operational were providing basic health services, one was providing telecommunications services due to the degradation of the local infrastructure, and the fourth EU was responsible for logistical support. The remaining ERUs were to provide a base camp, a partial hospital in Abbotabad and two water and sanitation units. At this point, 21 October 2005, the IFRC believed that they had sufficient medical teams on hand to meet the requirements.[57]

Canada's DART participation in the relief efforts of this disaster was coined Operation PLATEAU. While a strategic reconnaissance consisting of representatives from the Department of Foreign Affairs and International Trade (DFAIT), the Canadian International Development Agency (CIDA) and the CF was sent into Pakistan on 12 October, the DART reconnaissance team was held at Camp MIRAGE, an interim staging base in the Middle East, pending the Government of Canada's approval. The Canadian Government made its decision to deploy the DART on 13 October. Thanks in part to the

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[54] *Ibid.*, 404-405.

[55] *Ibid*., 405.

[56] *Ibid.*, 407.

[57] International Federation of Red Cross and Red Crescent Societies, "Operations Update: South Asia, 21 October 2005," http://www.ifrc.org/cgi/pdf_appeals.pl?05/05EA02207.pdf; Internet; accessed 15 February 2009.

forward staging of key DART components, the advance party arrived in Islamabad, Pakistan, on 16 October, just three hours behind the DART reconnaissance. The Commanding Officer of the DART, in consultation with DFAIT and CIDA, selected Garhi as the deployment site that same day. By 21 October the first of the convoys transporting the DART arrived at Garhi from the airport, with the medical facility opening the next day. One day latter, the ROWPU had water available for testing and the DART was declared to be at initial operating capability. They were declared to have reached final operating capability on 24 October, and had already distributed 11,000 litres of water. Within one week, almost 2,000 disaster victims had been treated at the DART medical facility, and their mobile medical teams (MMT) were operational. By 11 November, twenty days after arriving at Garhi, it was noted that the local medical facilities had started to recover and the DART began to redirect locals to them. Since the medical facility had opened less than three weeks earlier, the DART had treated over 4,500 patients, half of which were treated by the MMTs.[58]

While the Government of Pakistan did not formally request international assistance until 10 October, once it had a better picture of the severity of the disaster, the offer by the international community to assist, including the deployment of military capabilities for the relief effort was immediate.[59] The Pakistani government can be heralded in their acceptance of the international aid based on the speed with which it would arrive and become effective, rather than whether it was military or civilian in

[58] Cmdre R.D. Murphy, *Operation PLATEAU Lessons Learned Analysis Report,* Special Joint Staff Ottawa: file 3350-165/A27 (SJS Lessons Learned), March 2006.

[59] Sharon Wiharta, *et al, The Effectiveness of Foreign Military Assets…*, 109.

nature.[60] The net result was bilateral contributions by 14 nations in addition to NATO. The US had a field hospital deployed and operational by 10 October whereas NATO's field hospital was not operational in Bagh until 29 October. In a listing of key contributors to the relief effort, the Canadian DART was noted as having engineering capability available and engaged in operations a full ten days ahead of other contributors.[61] This is clear evidence that the DART not only deployed quickly, it shows that it was operationally effective quickly, both of which are key contributors in the successful response to a natural disaster.

The need for speed in responding to the disaster was recognized by the Government of Pakistan as well. In requesting international assistance, Pakistan had made no formal request for military medical and health care facilities, rather they were provided as a result of offers by the international community. To the government's credit, the acceptance of these capabilities was predicated on the ability of the contribution to be self-sufficient, while adherence to their national plan was considered desirable.[62] The lack of coordinated effort took on a Canadian aspect when the DART was tasked to provide potable water. While the DART engineers completed this task in short order, there was no plan in place for the distribution of the water, nor was the DART mandated to do so. This resulted in a delay in the distribution of the water by precious days.[63]

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[60] *Ibid*., 111.

[61] *Ibid*., 121.

[62] *Ibid*., 118.

[63] *Ibid*., 38.

Despite the medical care that the DART is capable of delivering, the Canadian Broadcasting Corporation, in commenting on the team's deployment, simply noted that they would deploy and that part of their mission "… will be to establish clean drinking water supplies and help set up makeshift villages for survivors as winter approaches."[64] Indeed, even after the mission, much of the attention was not focusing on the medical capability. As an example, the IFRC, in a press release, singled out that Canada and the US were helping to provide safe water and that the DART, mentioned specifically by name, was providing emergency water supply systems in Mussaffarabad.[65] This trend continues to surface in the NATO Fact Sheet of 7 December 2005, which noted Canada's contribution of DART to "… help meet the pressing need for safe drinking water."[66] In the summary of NATO contributors to the relief effort, it notes that all 26 NATO countries and 16 partner nations participated; noting only Canada's contribution of DART engineers.[67] The reason for NATO not identifying DART's medical contribution is due to the DART being deployed under a bilateral agreement, whereas the engineer team was seconded to NATO after it had deployed.[68]

CASE STUDY 3 – 2001 EARTHQUAKE IN INDIA

This third case study looks at a similar disaster to the first two case studies above, however in this case the DART was not sent to aid in the relief efforts. On 26 January

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[64] "DART Going to Quake Zone in Pakistan," *CBC News*, 14 October 2005; http://www.cbc.ca/world/story/2005/10/14/pakistan-quake051014.html; Internet; accessed 2 March 2009.

[65] IRC. "Pakistan: USA and Canada Help Provide Safe Water to Earthquake Victims." http://www.irc.nl/page/26802; Internet; accessed 3 February 2009

[66] United States Mission to NATO, "Fact Sheet: NATO's Response to the Pakistan Earthquake," http://nato.usmission.gov/FactSheets/Pakistan_Dec0705.htm; Internet; accessed 3 February 2009

[67] NATO Allied Command Operations. "All NATO Countries contribute to Pakistan Relief." http://www.nato.int/shape/news/2005/pakistan_contributions.htm; Internet; accessed 3 February 2009

[68] *Ibid*.

2001, a massive earthquake measuring 7.9 on the Richter Scale struck India. This was the most powerful quake to strike India in more that half a century, dating back to 15 August 1950, when a quake measuring 8.5 on the Richter Scale killed 1,538.[69] Striking at 0846 hours local, the quake, whose epicenter was in Gurarat in the Kutch District of India, was devastating. The official count lists more than 20,000 dead, at least 166,000 injured, and some 15 million affected as a result of the disaster. An estimated 8,000 villages were affected with approximately 400,000 homes destroyed and an even larger number damaged. The quake destroyed hundreds of rural and urban medical clinics, health centres, and leveled three hospitals. The government hospital in Bhut completely collapsed.[70]

The devastation was such that hundreds of villages in the Kutch district suffered as much as 90 percent destruction. This destruction wasn't limited to just homes; it included government administration buildings, police stations and courts, which complicated local efforts at coordinating relief efforts. Electrical power between, and in, the villages was lost as most of the substation control buildings were either damaged or destroyed. Temporary restoration was not established until two weeks later, however even at this point, local distribution was not considered to be a priority.[71]

Experienced in responding to the aftermath of earthquakes, the Government of India normally assumes all responsibility for disaster response within their boarders

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[69] Relief Web, "India Earthquake Summary Fact Sheet (FY 2001)," http://www.reliefweb.int/rw/rwb.nsf/db900sid/ocha-64c96U; Internet; accessed 3 March 2009.

[70] Relief Web, "The Role of OCHA in Emergency United Nations Operations Following the Earthquake in Gujarat, India – 26 January 2001: A Lessons Learned Study," http://ochaonline.un.org/OchaLinkClick.aspx?link=ocha&DocId=1003949; Internet; accessed 3 February 2009

[71] John M. Eidinger, "Lifeline Performance, Gujarat (Kutch) India Earthquake of January 26, 2001," http://www.asce.org/pdf/Gujarat_India.pdf; Internet; accessed 14 February 2009.

through their own national resources, and this quake would prove no different. The primary resource used by the Indian government for disaster response is typically the military, as was the case here. Military assets were rapidly diverted to assist in the relief efforts, including the deployment of military hospitals. By the end of the relief effort, India had deployed more than 30,000 military personnel in response to the quake. The quick response by the Indian government was witnessed in the establishment of a Disaster Management Control Room, in the Ministry of Agriculture, as a central point for the coordination of the relief effort.[72] By 30 January, there was more than 5,000 military personnel mobilized in support of the relief effort and the Government of India, confident in their ability to deal with the disaster, issued a statement that an appeal for international assistance would not be made, but did state that "all offers made voluntarily will be gratefully accepted."[73]

While neighboring states responded to the quake by sending medical teams and relief aid, the response from the international community was predominantly in the form of bilateral financial contributions. In addition to the Indian military, the IFRC and NGOs were significant contributors in the relief effort. With the hospitals in both Bhuj and Anjar totally destroyed, the Indian military provided the immediate emergency support which was followed and augmented by international relief efforts.[74] The IFRC mobilized a 350 bed field hospital to Bhut that was fully operational by 7 February 2001

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[72] International Federation of Red Cross and Red Crescent Societies, "India," http://www.ifrc.org/where/country/cn6.asp?iYear=8&xFlag=1&countryid=84&view=1; Internet; accessed 15 February 2009.

[73] *Ibid*.

[74] John M. Eidinger, "Lifeline Performance, Gujarat (Kutch) India Earthquake of January 26, 2001," http://www.asce.org/pdf/Gujarat_India.pdf; Internet; accessed 14 February 2009.

which was supported by IFRC water and sanitation ERUs.[75] This is similar to the time frame for the deployment of the DART to Pakistan and is seven days longer than the response to Turkey. Had the DART been deployed to India, it could have been operational as soon as, or sooner, than the IFRC field hospital. The international community, meanwhile, deployed search and rescue teams to aid during the immediate post-impact period in the recovery of quake victims, and were aided by the deployment of an Israeli military field hospital that deployed rapidly to the scene, but which would remain for less than two weeks.[76]

A UNDAC team was deployed to the disaster and arrived over a period of two days, ending on 30 January, to begin their assessment of needs. The IFRC had already established priority to hospital facilities, mobile medical clinics and water and sanitation. The IFRC field hospital established a water capacity of 120,000 litres per day.[77] Due to the damage and destruction to the housing in so many villages, there was significant dislocation of homeless victims that drove a requirement for greater effort to be placed on life-line services in order to care for them. As a result of the effort being placed in taking care of the immediate needs of the quake victims, the restoration of normal services was delayed. By 6 February, sanitation and waste control was becoming a growing concern and restoration of pipeline supplied water was still projected to take at least four to six months.[78] The provision of potable water and engineering expertise is an area that the

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[75] Relief Web, "The Role of OCHA in Emergency United Nations Operations …."

[76] International Federation of Red Cross and Red Crescent Societies, "India," http://www.ifrc.org/where/country/cn6.asp?iYear=8&xFlag=1&countryid=84&view=1; Internet; accessed 15 February 2009.

[77] *Ibid*.

[78] John M. Eidinger, "Lifeline Performance, Gujarat (Kutch) India Earthquake of January 26, 2001," http://www.asce.org/pdf/Gujarat_India.pdf; Internet; accessed 14 February 2009.

DART has received praise for on past deployments and could have greatly aided in the recovery period had it been deployed.

The IFRC field hospital, which had become operational eleven days after the quake, was treating 250 quake victims each day and where noting that many of the injuries sustained in the quake, and which were now being treated, were infected. A mobile hospital in Sukhpur that was deployed by the IFRC from Japan, and had begun operating nearly two weeks after the quake had struck, reported that eighty percent of the patients they treated were disaster related injuries. These two examples show that there was a very real need for medical capabilities to be deployed very early in the disaster response, a capability that is resident in the DART. It was also becoming apparent at this time that there was a real and growing need to shelter the now homeless victims.[79]

The response by Japan to the disaster is noteworthy as they have a capability similar to the DART in their Disaster Response Team (DRT). Early in the critical immediate post-impact period of the earthquake, Japan deployed a medical team from their DRT to the disaster zone. The team of 20 personnel, which deployed on 30 January, was joined on 4 February by 100 personnel from the Japanese Self Defense Force component of the DRT. These additional personnel were sent to India to carry out disaster relief efforts including assisting in the construction of the massive amount of tents required.[80] Japan was not the only nation that saw a need to send capabilities as part of their bilateral contribution, Israel had sent a field hospital and Germany's response

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[79] International Federation of Red Cross and Red Crescent Societies, "India," http://www.ifrc.org/where/country/cn6.asp?iYear=8&xFlag=1&countryid=84&view=1; Internet; accessed 15 February 2009.

[80] Relief Web, "Earthquake in India: Emergency Assistance Provided by the Government of Japan," http://www.reliefweb.int/rw/rwb.nsf/db900sid/ACOS-64DEV2; Internet; accessed 3 March 2009.

included two mobile drinking water treatment plants that were able to provide up to 500,000 litres of potable water each day.[81] The US also sent seven personnel from their DART organization with a primary goal of coordinating shelter, water and sanitation requirements.[82]

To better understand the devastation that occurred and the true requirement for medical aid that was required in response to the quake, the Government of India had identified 20 primary health clinics in the Kutch region that required reconstruction.[83] Despite the contribution of medical teams from China, Denmark, France, Israel, Japan, Russia and the United Kingdom, one year after the quake it was noted that in the initial stages of the response by the Indian government, many surgical operations took place without sterilized equipment or adequate medical facilities. Indeed, it was noted that survivors of the quake had malunion of bones, a clear indication that the treatment and therapy they received was inadequate.[84] This is also represents a need that could have been filled by the DART had it been deployed.

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[81] Relief Web, "Humanitarian Assistance Following the Earthquake in India," http://www.reliefweb.int/rw/rwb.nsf/db900sid/ocha-64DGZP; Internet; accessed 3 March 2009.

[82] United Nations Office for the Coordination of Humanitarian Affairs, "India Earthquake January 2001," http://ocha.unog.ch/fts/reports/daily/ocha_R10_E13863_asof___0904210205.pdf; Internet; accessed 19 February 2009.

[83] International Federation of Red Cross and Red Crescent Societies, "India," http://www.ifrc.org/where/country/cn6.asp?iYear=8&xFlag=1&countryid=84&view=1; Internet; accessed 15 February 2009.

[84] P. Chatterjee, "One Year After The Gujarat Earthquake," *Lancet*, 00995355, Vol. 359, Issue 9303, 26 January 2002. http://web.ebscohost.com/ehost/detail?vid=8&hid=14&sid=35e6df33-e5b1-4b69-85ef-9a1f4d79d70f%40SRCSM2&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#db=aph&AN=5934190; Internet; accessed 2 March 2009.

A VIABLE DART

All three case studies presented here share a number of common themes. First is the fact that in the event of a catastrophic natural disaster, the host nation and NGOs are likely to become overwhelmed. The deployment of the DART in the first two cases demonstrate how a military response in such circumstances is effective, due in large part to their readiness to deploy and the speed with which they can become operational once deployed. It is also evident that it could have been effective in India, had it been deployed. Once give the authority to deploy, the DART has demonstrated the ability to be operational quickly, in even the most remote settings.

The second theme common to all the cases is that of strategic distance and remote locations with little or no infrastructure remaining. The DART is designed to be self-sufficient and was able to operate in such settings. One factor that was noted in deploying this unit was the need for strategic lift. In the two cases where the DART deployed, there was a requirement to lease the airlift, and if it had deployed to India, it is likely that airlift would have needed to been leased as well. Once deployed, the DART was employed in some of the more remote regions of the disasters, a fact that can be attributed to the military nature of the DART and their ability to be self-sustaining for a limited period of time.

Each disaster response will have different requirements that need to be met, however these case studies have indicated that there are common elemental requirements that need to be met in all disasters. These requirements are: manpower, water, shelter and medical treatment. In the three cases presented, water was the primary requirement, followed closely by shelter. Shelter necessitated the requirement for manpower to build

them. While medical treatment was an important aspect in each of these disasters, host nation support and the IFRC were quick in providing this capability. The DART is organized to provide water and medical treatment facilities, and has the ability to use its manpower and engineering capabilities to assist in the construction of shelters for the victims. Noteworthy in this respect is that the DART still managed to treat thousands of quake victims where other organizations had asserted that they were not needed.

The final theme common to all three of these disasters is one of perception: there was a need that was filled, or could have been filled, by the DART. These disasters demonstrate that when millions of people are affected, it is very easy for the host nation and NGOs to become overwhelmed. In the first two cases, there was a void that was filled as a result of the DART's deployment. The basic necessities of life were provided by the DART through water purification and medical treatment. The fact that a year after the quake in India, the effects of not receiving proper medical care was evidenced, leads to the supposition that the DART would have filled a void had it deployed.

It is evident that the DART is a viable concept and should remain as the primary military response option by the Government of Canada to a natural disaster. It is also evident that this option is exercised infrequently and the locations of the disaster often strategically challenging. With a clear premise that the DART is a viable concept, the next chapter will examine how it is organized and how it should evolve to become an option more frequently relied upon and better able to deal with the challenge of strategic distances.

CHAPTER FOUR

CONFIGURING THE DART FOR SUCCESS

The previous chapters have shown that Canada has a responsibility to respond to an international natural disaster as reflection of national values and interests. It has also been shown that one such viable response is the DART. Following along in this analysis leads to the question that will be examined in this chapter: Is the DART configured for success in its current form? This question will be dealt with by first providing an overview of the DART organization, size, capabilities and how it is deployed. The two key themes of scalability and modularity are then discussed with a view to how they should be applied to the DART organization to make this military response option the one of choice rather than last resort.

As seen earlier, the DART can credit its inception to the lessons learned from the Canadian Forces (CF) deployment in support of humanitarian aid to Rwanda in 1995.[85] The DART is a core grouping of existing military capabilities that have been pre-identified and are maintained at a state of high readiness. It is not a standing CF unit. The deployment of the DART is guided by CONPLAN GRIFFON, the contingency operational plan for the CF response to a humanitarian emergency. The basic DART construct consist of operational and tactical elements as shown in Figure 1.[86] The operational elements are those that are responsible for taking the strategic intent and

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[85] Canadian Soldiers, "International Missions," http://www.canadiansoldiers.com/internationalmissions/internationalmissions.htm; Internet; accessed 14 February 2009

[86] LGen J.C.M. Gauthier, *CEFCOM CONPLAN 20851/06 GRIFFON – Deployment of the Disaster Assistance Response Team*. Canadian Forces Expeditionary Command: file 3301-5-2 (J5), 20 December 2006.

direction given by the Government of Canada and defining how they can achieve it through the application of the tactical elements. The tactical elements are those that provide a capability that can be used to accomplish the objectives of the mission.

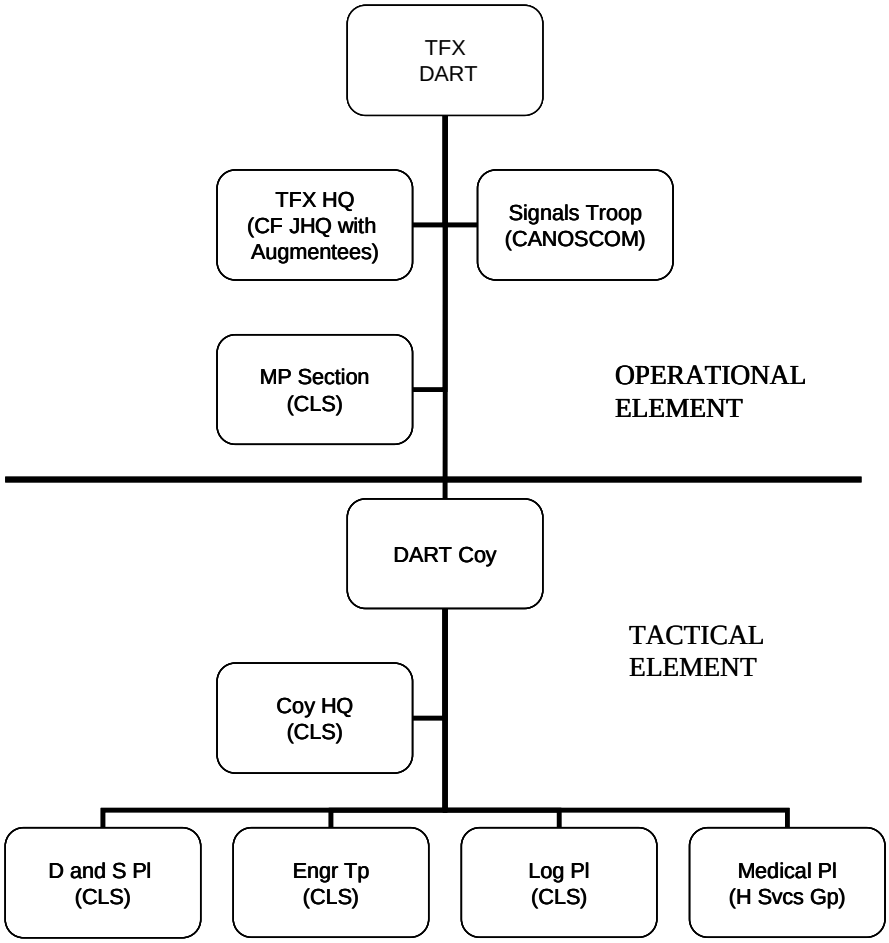

Figure 1 – DART Organizational Structure

Source: CFJHQ, OPLAN GRIFFON, Annex B.

At the operational level, there will generally be a designated Task Force Headquarters (TFHQ) formed from the Canadian Forces Joint Headquarters (CFJHQ) with some augmentation of specialist advisors, a Signals troop and a Military Police section. This TFHQ construct, while varying slightly in size depending on the mission, will always be present on deployment of the DART. The DART draws its compliment of

210 personnel predominately from within the Chief of the Land Staff (CLS), the Canadian Forces Operational Support Command (CANOSCOM), the Canadian Forces Expeditionary Command (CEFCOM) and the Canadian Forces Health Services Group (H Svcs Gp). The remaining individual augmentees are specialist advisors. The CFJHQ, in addition to forming the nexus of the TFHQ, is responsible for the deployment of the DART reconnaissance team, initiating liaison with the required force generators (CLS, CANOSCOM, H Svcs Gp), mounting the DART and declaring the DART operationally ready for deployment. The TFHQ, once formed, is responsible for developing the concept of operations (CONOPS) to be used for the mission, including any requirement for additional capability. The TFHQ is also designated as the authority for declaring the DART operationally ready for employment in the theatre of operations. [87]

The DART is a company sized tactical element of the Task Force and consists of a defense and security platoon (D&S Pl), an engineering troop, a logistics platoon, a medical platoon and a company headquarters. The DART Company is also responsible for the reception, staging, onward movement and integration of all DART supplies and personnel in the theatre of operations. It is required to prepare and operate a base camp; provide force protection to that base camp; provide the tactical command and control of the various elements of the company; provide general medical, engineering and logistical support; deploy mobile medical teams as required; provide water purification sites; establish a communication link to Canada through CEFCOM; provide communications both within the camp and the area of operations; and, perform small engineering tasks as required. The current organization calls for the DART Company to be prepared to effect

[87] *Ibid.*

liaison with the affected nation's police, security services, military and even with their government. [88]

Under CONPLAN GRIFFON, the DART is mandated to deploy four core capabilities. These core capabilities have been defined as primary medical care, the production of potable water, specialist engineering support, and command, control and communications (C3) capability. The specialist engineering support is focused predominately on supporting the DART itself however any residual capacity can be used for humanitarian assistance. The C3 capability is defined as achieving effective communication between the DART, the affected nation, and the in-theatre international organizations, NGOs and UN Aid Agencies. The mandated deployment capability of the DART Company includes the ability to provide a medical station for primary medical care that is able to treat up to 300 patients each day and to provide potable water at the rate of 50,000 litres each day with an expansion capability of up to 200,000 litres per day. The DART is designed to be self-sufficient, deploying with 14 days of water and food. A typical DART deployment is expected to last forty days and is based on the historical duration of a relief phase. [89]

The question that must be answered when looking at how the DART is organized and configured for both deployment and operations is: Does the configuration of the DART allow for flexibility in its ability to deploy to disasters or humanitarian emergencies and in how it can be employed once in a theater of operations? The two key factors that have a direct impact on flexibility are modularity and scalability. Modularity

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[88] *Ibid.*

[89] *Ibid.*

is defined quite will in Land Force doctrine as the contribution to a force employer of structures that are task tailored for a specific mission. The forces are to achieve the "optimum balance of operational functions within the constraints, restraints and limitations imposed by the force employer."[90] Scalability has increasingly been considered in the generation of forces for deployment as it is recognized and accepted that "no two operations are identical."[91] Land Force doctrine also recognizes that "after considering the requirements of a specific operation … and the assessment of the force employer … the LF will generate a modular, scalable force that will be assigned to a force employer."[92] This ethos can and should apply equally to the generation of the DART.

In its current configuration, the DART is large and very expensive to deploy. When deployed to Turkey in 1999, it is estimated that the cost incurred for the mission was $8 million.[93] It is very easy to see why the cost of deploying the DART is so much when a response to a standard mission requires 45 aircraft pallets, 13 military vehicles, ten trailers, two forklifts designed for rough terrain, two ROWPUs, two ISO containers, a skid steer and a backhoe. Indeed, just to transport the DART requires that the equivalent airlift of four or five AN124 ANTONOV aircraft must be leased. Using Canadian Forces capability would require a minimum of nine CC177 GLOBEMASTER flights.[94] The

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[90] Department of National Defence, B-GL-300-001/FP-000, *Land Operations* (Ottawa, ON: Chief of the Defence Staff, Draft 2007), 8.

[91] *Ibid*.

[92] *Ibid*.

[93] "Pettigrew Says DART Help for Haiti Not Requested, May Be Too Expensive," *Canadian Press NewsWire,* 28 September 2004; http://www.proquest.com; Internet; accessed 11 January 2009.

[94] Canadian Forces Joint Headquarters, "Task Force Movement Table – DART Deployment and Reserve (Pull) List," Kinston ON, Updated 1 January 2009

problem remains that the core DART organization is large and is only scalable in the sense that additional capability can be added. An example of this is witnessed in CONPLAN GRIFFON, where Commander CEFCOM has the authority to increase the manning of the DART from 210 to 240 if needed. In addition, there is an equipment reserve that is available on a "pull" basis; where pull means that the equipment is already pre-positioned and is deployed if it is deemed needed in the development of the CONOP for a mission. This reserve consists of 14 more aircraft pallets, an additional two ROWPUs, an ISO container, a limited number of military vehicles, trailers and engineering equipment.[95] The requirement for such airlift to move the DART is recognized in CONPLAN GRIFFON where it is considered that "the single largest risk associated with projecting a DART is the non-availability of sufficient airlift to deploy in a timely manner."[96] It is understandable to maintain a generic high readiness military capability to respond to a disaster or humanitarian emergency anywhere in the world, but if, as in the case of the DART, it is too big and too expensive to be a readily accessible option for responding, then it should be changed.

The capability of the DART is based on an organization of 210 personnel to provide the four core capabilities, and it is these core capabilities that are weighed in the consideration of their deployment. When the Government of Canada considers a response to a humanitarian emergency, it considers many options before looking to the military. This is in keeping with the Oslo Guidelines on the use of military assets in disaster relief which states that: "Foreign military and civil defence assets should be

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[95] *Ibid*.

[96] LGen J.C.M. Gauthier, *CEFCOM CONPLAN 20851/06 GRIFFON – Deployment of the Disaster Assistance Response Team*. Canadian Forces Expeditionary Command: file 3301-5-2 (J5), 20 December 2006.

requested only where there is no comparable civilian alternative and only the use of military or civil defence assets can meet a critical humanitarian need."[97] Any decision to send the DART will always be considered in a whole of government approach in responding to a disaster and may even be part of a larger CF response.

In a report on the effectiveness of foreign military assets in natural disaster response, it was noted that "… certain types of military assets were better used than others."[98] Specifically cited in this report was that airlift was deem critical, while field hospitals "… were less well used for a number of reasons: there was an oversupply of the asset or it was not appropriate because the medical assistance it offered was not the most needed and could have been provided by local or international civilian organizations."[99] Given that the DART has deployed only four times in more than 13 years, it is clear that it does not fit the mold of required capability in all but a few emergencies. By embracing modularity and scalability, the DART could be more flexible in possible response capabilities and could fill critical needs rather than being held for a disaster that requires all four of its core capabilities.

SCALABILITY AND MODULARITY

The first concept that must be embraced by the DART is one of scalability. While CONPLAN GRIFFON identifies the four core capabilities that DART is to be prepared to provide, it does not address what key components of the DART must be deployed on each and every mission. Forgetting for just a minute the core capabilities, each

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[97] United Nations Office for the Coordination of Humanitarian Affairs, "Guidelines on the Use of Military and Civil Defence Assets in Disaster Relief –'Oslo Guidelines'" Rev. I, November 2006. http://www.coe-dmha.org/Media/Guidance/2OsloGuidelines.pdf; Internet; accessed 7 January 2009.

[98] Sharon Wiharta, *et al, The Effectiveness of Foreign Military Assets…*, 48.

[99] *Ibid.*, 49.

deployment of the DART, or of any military organization, typically requires a headquarters for command and control, an ability to communicate within the area of operations and back to Canada, the ability for a minimum period of sustainability, force protection, and the ability to conduct the desired operation through a minimum capability package. While this may seem similar to CONPLAN GRIFFON, what changes is that the ever-present medical and engineering troops are not part of the nucleus of the DART rather, each or even a portion of each could be deemed to be a minimum capability package. The starting point for a DART deployment would now be a smaller organization that could be task tailored to respond to a critical need rather than looking for a critical need that meets the capability of the DART. This would also serve to emulate the philosophy of the United States, who recognized in their 1917 War Department Regulation that military resources were to support but not substitute for the efforts of the state.[100]

Similar to Figure 1, discussed earlier, the core component of the DART would be the operational elements consisting of the TFHQ, the Signals Troop and the MP Section. The size and capability required for each of the operational level elements would be dependant on the CONOP for the mission, thus making them scalable. What CONPLAN GRIFFON referred to as core capabilities would now become capability packages. The capability packages would each need to be refined to a minimum capability that could easily be deployed if required. Using the minimum capability as a building block, it could then be augmented with more personnel and equipment to make it scalable; or

[100] James F. Miskel, *Disaster Response And Homeland Security : What Works, What Doesn't,* (Westport, CN : Praeger Security International, 2006), 46.

additional capabilities could be added in the form of modules, with each module being scalable.

Using modularity and scalability as keystones for the DART can be likened to buying a car. The first decision is what type of car to buy, a decision that will be based on what the car will be used for. Since the car in this case will be used to respond to a humanitarian emergency, it will need to be a DART. Now that the type of car has been selected, it is necessary to consider what options are needed and desired. The standard features on this car include a radio, air bags, and a tow hitch. This would equate to a basic DART communications package, force protection and the ability to add-on, respectively. The standard package has all the basics to make the car go, similar to a headquarters. If the intended use of this car were to be snow removal, then a package would be added that would allow a plow to be added and used. This may entail upgrading the suspension, increasing the power of the engine and upgrading the electrical system. Similarly, in adding an engineering capability to the DART, there may be a need to increase the command and control capability, add to the logistical capacity and add specialist support.

It is easy to see the merits of an approach focusing on modularity and scalability. Each mission is different and the response to each should be task tailored. Like choosing a car, it should be based on what is needed to do the job and is affordable. It would make no sense to buy a sports car and then try to figure out how it could be used to do snow removal. It is better to start with the task and then get what is needed. This type of approach would also address criticism such as that levied by John Watson, Chief Executive of CARE Canada, who was critical of the DART and likened the Government

of Canada's decision to use the DART to "…using a Cadillac where a motor scooter or skateboard would be most useful."[101]

This may seem a simplistic approach in principle however, in practice it does become somewhat more problematic. The first challenge that must be overcome is the requirement to be self-sustaining. This is recognized in CONPLAN GRIFFON where the ability to be self-sufficient is articulated as being important in ensuring that aid resources are not prevented from getting to where they are needed in order to support the relief effort itself. This requirement will figure into the logistical apportionment for any given deployment however, it can be tempered through fixed deployment times. When the Government of Canada sends the DART, it is aimed at the recovery period of a disaster only, and is not meant to extend into the reconstruction period. The transition to the reconstruction period and the continuation of aid is a whole of government role that will be discussed in the next chapter, however, it is important to raise it now to clarify that the DART is only part of the response and should be withdrawn after a fixed period of time. The fixed period of time is already recognized as being no more than 40 days. A firm commitment by the government to a fixed deployment period could allow for a reduced logistical footprint while still allowing for a certain amount of redundancy.

CONTRACTING AND PRIVATIZATION

When looking at modularization in terms of the DART, the ability to have a module at high readiness makes it is necessary to consider all options including contracting and privatization, to fill a potential capability component. The reasoning

[101] Carrie Kristal-Schroder, "Canada's Tsunami Help 'Amateur,' Aid Boss Says," *The Ottawa Citizen*, February 2, 2005; http://www.proquest.com; Internet; accessed 11 January 2009.

behind this is that the primary mission of the CF is not humanitarian aid, and it is not realistic to maintain a large force at high readiness for such a mission as this will detract from the CF's ability to conduct primary operations, training and reconstitution. While one of the primary reasons for sending the military in response to a humanitarian emergency is their high state of readiness, contracting is not necessarily a contradictory proposition. The use of civilian contractors in the military is not new, in fact "[c]ivilians have long supported military operations, something explicitly identified in the Hague conventions on warfare."[102] Keeping in mind that timeliness is one of the main reasons for sending the military, it must also be remembered that in the CF, military personnel are also subject to unlimited liability. Although this is primarily a consideration for CF personnel in a hostile setting; problems could arise with contracted personnel if their safety cannot be guaranteed.[103] As discussed earlier in this paper, one of the pre-requisites for a DART deployment is that the environment is permissive, however that does not necessarily mean safe. Canada's initial experience with contracting capability modules, to fulfill roles previously performed by the military, was in Task Force Bosnia Herzegovina in 2000. The practice of contracting was introduced to in order to provide logistical and technical support to the Canadian operations in the region and to free up the military personnel that were doing those functions for duties elsewhere. While the contract was filled, it can be argued that it was not a complete success, especially when "[t]he attrition rate of ATCO-Frontec workers in Bosnia [in 2001] was 68% due to

[102]Christopher Spearin, "Not a 'Real State'? Defence and Privatization in Canada." *International Journal* 60, no. 4 (Autumn 2005): 1094-1095.

[103] *Ibid*., 1104.

problems stemming from the terms of the contract and the conditions of employment."[104] While the Canadian military experience with contracting has greatly improved since this early attempt, and contracting for certain services is now common on almost all deployments, there is still a fear of contracted personnel performing unethical or illegal acts when deployed with the CF and bringing discredit to both the CF and to Canada.[105] This fear can be dealt with effectively in terms of the contract itself through clearly articulating responsibilities, expectations and consequences. What it does not address however, is the fact that, unlike the military, contractors cannot be ordered into harms way.

As witnessed through the abundance of NGO and IGO organizations, there are a number of advantages in using privatization for humanitarian assistance over military forces. The first advantage lies in the simple fact that they are not military and therefore are not subject to the same stigma and limitations associated with deploying a foreign military into a state. As noted in a report by the Stockholm International Peace Research Institute, some countries such as China, North Korea and India are unwilling to allow foreign militaries into their countries even in the event of humanitarian emergency, which implies that a military response option using the DART, even with contracted capabilities, will not likely be allowed into these countries.[106] While this may not hold true for a completely privatized DART, such an organization would then be in direct competition with international organizations and NGOs, which was never the intent of the DART. The second advantage to contracting is that of cost: private sector services

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[104] *Ibid*.

[105] *Ibid*. 1105.

[106] Sharon Wiharta, *et al, The Effectiveness of Foreign Military Assets…*, 25.

only cost between 10 and 40 percent of what similar state provided services do, a fact that holds true for specialized services as well. In his writing on *Privatized Peacekeeping*, Brooks noted that "[i]t is significantly cheaper to 'rent' expertise and equipment from companies than it is for militaries to attempt to maintain them for years or decades,"[107] a notion that could apply equally well in a response to a humanitarian emergency. While cost is a consideration, it is secondary to the requirement for high readiness and the ability to operate in an environment with no infrastructure.

A military response to a humanitarian emergency is not meant to replace humanitarian assistance organizations, rather it is to augment and assist where a critical requirement exists or the international organizations are in risk of being overwhelmed. Likewise, contracting for a capability module to augment the DART will fail as an option when it is in direct, or perceived, competition with the same capability offered by either an international organization or an NGO. Where privatization will bear positive results when utilized by the DART is in specific logistical functions such as strategic airlift; a function currently recognized and leveraged by the DART in past deployments.

A NEW DART

While privatization and contracting may be consideration for some aspects of a rapid government response to a humanitarian emergency in an international setting, it is the military aspect of the DART that allow for its deployment into harsh conditions. The Canadian Land Forces recognize the requirement for a modularized and scalable military capability, a notion that holds equally true for the DART. When a state is unable to

[107] Doug Brooks and Gaurav Laroia, "Privatized Peacekeeping," *National Interest*, no. 80 (Summer 2005): 123.

adequately deal with a natural disaster or humanitarian emergency, and the international organizations and NGOs are in jeopardy of becoming overwhelmed, the Government of Canada needs the DART organization to be modularized and scalable in order become a viable choice as a military response to such an emergency. An approach such as this would make the DART easier and quicker to deploy, reach IOC and conduct operations. It would also provide greater breadth in the potential deployment options available to the government. Continuing with the concept of modularization, the next logical step is to consider if it is only the military that should be contributing capabilities to such a deployment. The next chapter will explore this idea, with an emphasis on a whole of government approach.

CHAPTER FIVE

THE NEED FOR A WHOLE OF GOVERNMENT APPROACH

While the previous chapter dealt with the organizational structure of the DART and recognized that it needs to be modular and scalable in nature, it did not address what effect the DART provides for the Government of Canada, nor the capabilities that the government could provide to the DART. This chapter will examine the DART in a whole of government context. This is a theme that has seen a steady increase in prominence in all Canadian Forces deployments, and is examined here to ascertain the benefits of such an approach and how it can be incorporated into all phases of the DART deployment to increase both the strategic and tactical effect of its employment. Indeed, this is a theme that is echoed across many modern nations and is reflected in a report submitted in 1996, where the UN noted that "relief and development activities proceed often at the same time, each therefore having an impact on the other."[108]

In order to lay the foundation for how the whole of government approach can be integrated into DART deployments, a definition of what whole of government is will first be outlined. An examination of how DART is a strategic effect for the Government of Canada will then follow, which includes consideration on how better use of the Media can be made in achieving an effect that recognizes more than just the military contribution. Consideration is then given to who needs to be on the strategic and operational reconnaissance teams to a natural disaster and how this should be used in

[108] "Strengthening of the Coordination of Humanitarian and Disaster Relief Assistance on the United Nations", *Report of the Secretary-General, Economic and Social Council*, E/1996/77, para 27 in Lionel Cliffe and Philip White, "'Peace-Building' or Something In-Between?" in *Matching Response to Context in CPEs*, (Malden: Blackwell Publishers, 2000), 317.

structuring the Task Force Headquarters for success. This chapter will conclude with an examination of how this headquarters, using a whole of government approach, will have greater success in coordinating efforts with other relief organizations.

The idea of a consolidated approach, where relief and development are seen as being linked, has firmly taken hold. Following the 1996 UN report, the OECD offered a similar view the next year, stating that "emergency relief, rehabilitation work and development assistance all coexist in times of conflict and crisis, and they interact in innumerable ways."[109] It was not in isolation then, that Canada's efforts in Africa and the Balkans in the 1990s demonstrated a need for a coordinated response to achieve the desired security, governance and economic development rather than continuing with the individual efforts by DFAIT, CIDA, DND and others.[110] While this recognition was primarily for post-conflict activities, it is equally applicable to post-disaster activities, especially in failed and failing states. This was recognized in the April 2005 release of Canada's International Policy Statement (IPS), where it was noted that the timely and effective response to a natural disaster requires an integrated strategy including DFAIT, CIDA, DND, Citizenship and Immigration Canada.[111] While CIDA has not yet officially adopted the IPS, it is used as one of their keystone references. The IPS refers to a whole of government approach and mentions a number of the federal departments that participate in various joint endeavors however it falls short of providing a definition of what whole of government is. As a minimum, whole of government can be defined as a

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[109] Lionel Cliffe and Philip White, "'Peace-Building' or Something In-Between?" in *Matching Response to Context in CPEs* (Malden: Blackwell Publishers, 2000), 319.

[110] Stewart Patrick and Kaysie Brown, *Greater than the Sum of its Parts? Assessing 'Whole of Government' Approaches to Fragile States,* (New York: International Peace Academy, 2007), 58.

[111] Canadian International Development Agency, Canada's International Policy Statement (2005) http://www.acdi-cida.gc.ca/ips; internet, accessed 17 December 2008.

coordinated effort on behalf of the government that typically includes the three key federal activities of: Defence, Diplomacy and Development.[112] While it may also include technical and domestic agencies, the nature of a response will dictate which of these activities will be the government's main effort. The overall lead in a whole of government approach will normally be DFAIT; an approach seen in all DART deployments to date, and is currently the case in Afghanistan.

The commitment to a whole of government approach by Canada, when responding to humanitarian emergencies and natural disasters, was underpinned the by establishment of the Stabilization and Reconstruction Task Force (START). Following the realization that a whole of government response was needed, as outlined in the IPS, START was formed in September 2005 and given a mission that states, in part, that it will "… ensure timely, coordinated and effective responses to international crises (natural and human-made), requiring whole-of-government action."[113] That this approach is needed is further highlighted in the organization of the START, where one of the five START teams is responsible for humanitarian assistance and disaster response. This team achieved early success in Pakistan "… where Canada initiated a disaster response, a rapid whole-of-government approach drawing on a range of Canadian assets and tested approaches was developed to manage the disaster."[114] As with all new programs, especially in government, there are always some growing pains. The main obstacle for START is that it is viewed as part of DFAIT, where it resides, by the other departments.

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[112] Stewart Patrick and Kaysie Brown, *Greater than the Sum …*, 58.

[113] Foreign Affairs and International Trade Canada, "Stabilization and Reconstruction Task Force (START)," *Mobilizing Canada's Capacity for International Crisis Response*, www.dfait-maeci.gc.ca; Internet; accessed 2 February 2009.

[114] *Ibid*.

This leads to a reluctance in sending personnel to staff the organization and has resulted in a lack of information sharing between the departments that have provided staff.[115]

Given the commitment to a whole of government approach, how can the DART achieve a strategic effect? First it must be understood that "… strategy is the art of controlling and utilizing the resources of a nation … to the end that its vital interests should be effectively supported and secured…."[116] Building on this understanding, it can then be agreed that "… certain strategic tools and techniques exist for a nation-state to use and protect its core values and national interests, which, for most countries, would include their political integrity and territorial sovereignty."[117] Strategy, then, is based on interests and values, or more precisely, national interests and values when taken in the context of the DART and whole of government. A strategic effect is achieved when strategic interests are satisfied and result in a positive effect on the prestige of the country, the political-military security is enhanced and the economic position is strengthened.[118] The CF's mission, "to defend Canada and Canadian interests and values, while contributing to international peace and security,"[119] support part of the equation that forms a strategic effect however, it does not deal sufficiently with the economic and political elements. In a whole of government approach to DART, the

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[115] Stewart Patrick and Kaysie Brown, *Greater than the Sum* …, 67.

[116] W.D. Macnamara and Ann M. Fitz-Gerald, "A National Security Framework for Canada," in *Geopolitical Integrit,* ed. Hugh Segal (Montreal: The Institute for Research on Public Policy, 2005), 84.

[117] *Ibid*.

[118] Jean-Sébastien Rioux, "Canadian Official Development Assistance Policy: Juggling the National Interest and Humanitarian Impulses, " in *Handbook of Canadian Foreign Policy,* ed. Patrick James, Nelson Michaud, and Marc J. O'Reilly (Lanham, MD: Lexington Books, 2006), 213.

[119] Department of National Defence, B-GL-005-300/FP-000, Canadian Forces *Operations,* (Ottawa, ON: Chief of the Defence Staff, 15 August 2005), 1-1.

missing pieces to achieve diplomacy and development would be part of a coordinated response to the disaster and would be engaged from the inception of the mission.

The achievement of a strategic effect when deploying the DART within a whole of government approach can be greatly aided by the media. Conversely, unfavorable media coverage can result in a strategic disadvantage, where public opinion is swayed or even lost. An example of negative media attention is seen in an article in the Globe and Mail charged that the Canadian response to the tsunami in 2005 was merely a public relations effort where the aim was arguably to achieve a strategic effect with minimal effort on behalf of the government.[120] On the positive side, the lessons learned from OP PLATEAU, Canada's response to the Pakistan earthquake, state that "the DART is a national strategic element, which provides undeniable evidence of Canadian commitment, with a larger 'media impact' than most other disaster assistance agencies."[121] Considering that the DART is a military response option by the government to a natural disaster, the strategic effect that could be gained through a coordinated and representative whole of government approach would be noteworthy. The effect is significant in both the public and political arenas, where positive media attention has been shown to have a direct affect on foreign aid and humanitarian assistance, as noted by Jean-Sébastien Rioux, who asserts that one story in the Globe and Mail Newspaper equates to $21,500 US in foreign aid.[122] Rioux further notes that

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[120] Jeff Sallot, "PR was key to Ottawa's tsunami response," *The Globe and Mail*, Toronto, ON, 16 November 2006, http://www.proquest.com; Internet; accessed 28 January 2009.

[121] Cmdre R.D. Murphy, *Operation PLATEAU Lessons Learned Analysis Report,* Special Joint Staff Ottawa: file 3350-165/A27 (SJS Lessons Learned), March 2006.

[122] Jean-Sébastien Rioux, "Canadian Official Development Assistance Policy: Juggling the National Interest and Humanitarian Impulses," In *Handbook of Canadian Foreign Policy,* ed.Patrick James, Nelson Michaud, and Marc J. O'Reilly (Lanham, MD: Lexington Books, 2006), 224.

"humanitarian disasters that are well publicized attract higher levels of Canadian aid …."[123] While it is true that "… there appears to be a strong correlation between media coverage and public opinion …,"[124] media attention cannot be the driving force for deploying the DART. The decision to send the DART is not taken lightly and is not determined until after a reconnaissance has been conducted and recommendation made to the government by DFAIT. While media pressure may be harsh, it is also relevant to note that "… in reality the media tends to reflect the opinion and object of the dominant political intuitions."[125] It is in the best interest of the Government of Canada to keep the media informed. This should not be done in isolation, rather a coordinated effort embracing whole of government in DART media relations should be used.

When considering strategic effect, it must be remembered that "… the media decides what amount of news coverage it will dedicate to political issues; this in turn should generate public interest."[126] In the four occasions where the Government of Canada has sent the DART, only the DART has received media attention, despite the fact that DFAIT, CIDA and others were present. The lessons learned by the CF from OP PLATEAU are clear in the recognized value of imbedded media in providing reports from a CF point of view and in providing a public record of the actions of the DART.[127] These same lessons learned confirmed that there were liaison officers from both DFAIT and CIDA present at some point during the deployment, but in researching the media

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[123] *Ibid.,* 225.

[124] Cheryl DesRoches, "An Assessment of the Influence of the Media on the Public's Perception," Appendix A in *From The Outside Looking In: Media And Defence Analyst Perspectives On Canadian Military Leadership*, ed. Bernd Horn. (Kingston, Ont.: Canadian Defence Academy Press, 2005), 166.

[125] *Ibid*., 167.

[126] *Ibid*., 180.

[127] Cmdre R.D. Murphy, *Operation PLATEAU Lessons Learned* ….

coverage of the DART, the common fact that surfaced was that no mention of DFAIT or CIDA participation was made, and that the response to the natural disaster was a military one. The one exception to this is an article in the Edmonton Journal that mentioned in passing that both DFAIT and CIDA were part of the strategic reconnaissance to determine if the DART would deploy.[128] While this media coverage may carry minimal strategic value with the public in terms of whole of government, the case studies in Chapter Two showed that Canada provided significant aid that was not recognized by the general public, but did achieve a strategic effect on the international scene.

The deployment of the DART is a consideration when the core humanitarian assistance organizations are, or could be, overwhelmed in response to a humanitarian emergency. Deployment of the DART can be triggered either by a request from the United Nations or by an individual nation that has suffered a disaster. It is also within the purview of the Government of Canada to offer such a deployment to a country that has suffered a disaster. Regardless of who requests it, the decision to deploy the DART will ultimately be made by the Government of Canada based on a recommendation by the DFAIT, in consultation with DND and CIDA. Generally, if a non-government organization (NGO) can accomplish the mission more cost effectively, DART will not be deployed.[129] Clearly, a whole of government approach is intended, a fact further highlighted when the decision by the Government of Canada on whether or not to deploy

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[128] "Armed Forces Disaster Team Sets Down On Haiti Soil; Group To Ponder Assistance In Wake Of Hurricanes," *Edmonton Journal*, 11 September 2008; http://www.proquest.com; Internet; accessed 11 January 2009.

[129] National Defence, "Disaster Assistance Response Team (DART)," http://www.cfjhq.forces.gc.ca/dart/main_e.asp; Internet; accessed 7 November 2008.

the DART is based on a recommendation from an Interdepartmental Strategic Support Team (ISST) following a strategic reconnaissance.

The ISST is typically no larger than three or four people, led by DFAIT and represented by CIDA and the CF. Ideally the CF representative is the Commanding Officer of the CFJHQ. While there will be a senior representative from the CF on the reconnaissance, not having someone with an intimate knowledge of what capabilities the DART can provide could serve to slow down the effective development of a CONOP, and may lead to a misunderstanding of what effect the DART could achieve. Keeping in mind the pressure that can be applied by the media or the government to react, the ISST must remain cognizant that the DART is not designed for the immediate post-impact period, rather, the focus is on the recovery period where the aim is to assuage the secondary impacts of the disaster such as injuries resulting from it and in reducing the risk of disease and illness spread through inadequate sanitization and drinking water.[130] This focus on the recovery period is also the most appropriate for a whole of government approach, especially in a failed or failing state. It is here that the tenants of defence, development and diplomacy can best take root. It implies that development and diplomacy must not only be represented, they must be present at some point in the recovery period. Also implied is that defence, development and diplomacy must not be considered in isolation, but must be considered as means to a common end.

Past deployments of the DART have witnessed a predominant military overture, despite the fact that the response mirrors what NGOs and IGOs are attempting to accomplish. The TFHQ is quite adept at coordinating with host nation militaries and

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[130] *Ibid*.

with the UN, but it is the link to the host nation and other contributing nations that are best served through DFAIT and CIDA. All these linkages are initiated during the ISST reconnaissance and should be maintained throughout the recovery effort. This can only be accomplished if there is representation from both agencies throughout. The whole of government approach will only work if all parties are working together with a common plan. DFAIT, as the lead agency, for the overall effort, and CIDA as the key agency in development assistance must be part of the recovery response. While they do not necessarily need to be part of the TFHQ, there should be liaison officers attached to the HQ and constant dialogue maintained throughout. A true whole of government approach can result in greater understanding of the requirements needed in any given disaster when one considers that "…groups with a broad range of perspectives are better in reading and defining their complex decision environment."[131] It is only through such an effort that a whole of government approach will succeed in a DART deployment, allowing for a comprehensive and effective long-term recovery plan and exit strategy by the Government of Canada to a natural disaster.

[131] Ingrid Bonn, "Improving strategic thinking: a multilevel approach," *Leadership & Organization Development Journal* 26, no. 5/6 (2005), 342.

CHAPTER SIX

CONCLUSION

The DART is a high readiness Canadian Forces unit that was conceived and formed in 1996. Since its inception, it has only been deployed four times to areas that have been devastated by natural disasters. It has been praised for its successes in easing human suffering and criticized as being too large and expensive. The Government of Canada has similarly been criticized for either not deploying the DART or taking too long to deploy it. Throughout its short history, one thing remains constant: the DART has always been ready to deploy.

This paper began with the premise that the DART is a valuable strategic effect capability that, to be more effective, must become more flexible. To show this to be valid statement, four main themes were examined. The first theme demonstrated that Canada has a responsibility to respond to a natural disaster. Ensuring an adequate and appropriate response to disasters can help to reduce additional friction that could arise in a failed or failing state as a result of such a disaster and is therefore in the interests of Canada to respond. This is a reflection of Canadian national values and interests, and is a direct reflection of the national value of *Rule of Law*. Canada's response to a natural disaster is also a demonstration of leadership in the world and a promotion of the Canadian principle of having a *responsibility to protect*.

Building on the knowledge that Canada has a responsibility to respond to a natural disaster or humanitarian emergency, the second theme, that the DART was a valid concept, was accomplished through the use of three case studies where it was demonstrated that the DART fills a need that would otherwise remain unfilled. While

faced with strategic distances in deploying to disasters around the world, the DART has arrived in a timely manner and become effective almost as soon as it arrives in location. Thanks in part to its military nature, the DART is self-sufficient and able to operate in areas devastated by disaster with infrastructure that has been destroyed as witnessed in both Turkey and Pakistan. It has treated thousands of victims and helped countless others with their water and engineering capabilities. It is clear that the DART is a viable concept and fills a need as a military response option for the Government of Canada.

The third theme supporting the thesis statement is the organizational structure of the DART. In its current form, the DART is a one size fits all organization. Unfortunately, this means that in any decision to deploy the DART in response to a natural disaster, it is the DART's capability that is compared to what the disaster requires. If it is not a match, then the DART does not deploy. By looking to a modularized, capability packaged construct that is readily scalable, the DART will become far more flexible and able to respond to a wider range of emergencies. Contracting is an option that could be considered for some aspects of modularity within the DART, especially for logistical functions such as airlift.

The Whole of Government approach rounded out the themes, where it was noted that the potential to achieve strategic effect is perhaps at its greatest. Whole of government has seen increasing prominence by many of the modern nations in the world and is a notion held in regard at the UN. Development and relief activities are often present at the same time following natural disasters. Coordinating a response that includes Defence, Development and Diplomacy from the start could result in a far more comprehensive recovery effort. It is an approach that can be incorporated into all phases

of the DART deployment to increase both the strategic and tactical effect of its employment

The DART is a resource that has far too often been un-tapped. The ability to project a relief effort practically anywhere in the world is not just a challenge, it is a responsibility. To accept that responsibility and meet that challenge, the DART must change its organizational structure to one that is capability based, modularized, scalable, and takes a fully integrated whole of government approach in all phases of its operation.

CHAPTER SEVEN

RECOMMENDATIONS

Throughout the research for this paper, it became evident that very little had been written on the DART. With the exception of a number of news articles and referencing in medical journals, no definitive work on the DART could be found. A strategic asset such as this, with the ability to achieve a strategic effect for the Government of Canada, should be examined in greater detail. The examination conducted in this study leads to the following areas for consideration of further study:

1. This paper examined why the DART must become more flexible through the concepts of modularity and scalability. Due to the limited scope in exploring this theme, further study is recommended on the development of capability packages for the DART and how they can be modularized and scalable.

2. The concept of contracting capabilities on deployed operations has been a part of the Canadian Forces for nearly ten years. While the DART has used contracted airlift on a number of occasions, the possibility of contracting capability modules that could deploy with the DART bears further examination.

3. The whole of government approach was examined in this paper and found to be an enabler in the response to a natural disaster. While it was accepted that integration of DFAIT and CIDA into the DART TFHQ would be beneficial, how they could be integrated is an area that could be well served by further study.

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