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# Lessons Learned from Recent Canadian Armed Forces Humanitarian Assistance Missions: Haiti Earthquake 2010 and Philippines Typhoon 2013

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## Outline

- Disaster Assistance Response Team
- Haiti Earthquake 2010
- The Canadian Response
- Philippines Hurricane 2013
- The Canadian Response
- Lessons Learned for Future Missions
- Anticipatory Trends Analysis
- Capability Gap Analysis
- Conclusion



# The Disaster Assistance Response Team

- Engineer Troop
- Medical Platoon
- Logistics Platoon
- Defence and Security Platoon



# Disaster Assistance Response Team – Past Deployments

- Operation Central (1998 Hurricane Mitch hit Honduras, Nov – Dec 1998)
- Operation Torrent (17 August 1999 earthquake in Turkey, Sept – Oct 1999)
- Operation Structure (24 Dec 2004 tsunami hit SE Asia, Dec 2004 – Mar 2005)
- Operation Plateau (8 Oct 2005 earthquake in South Asia, 14 Oct – 4 Dec 2005)
- Operation Unison (2005 Hurricane Katrina in US, Sept-Oct 2005)
- Operation Horatio (Aug 2008 four hurricanes hit Haiti, 10-27 Sept 2008)
- Operation Hestia (12 Jan 2010 earthquake in Haiti, 13 Jan – 1 April 2010)
- Operation Renaissance 13 (7-8 Nov 2013 Typhoon Haiyan hit Philippines, 13 Nov – 15 Dec '13)
- Operation Renaissance 15 (25 April 2015 earthquake in Nepal, 25 April – 12 May 2015)



# The Earthquake 12 January 2010



## The Canadian Forces Mission

- Conduct disaster recovery operations and non-combatant evacuation operations in support of the Canadian Head of Mission in Haiti.
- Create the conditions for relief agencies and non-governmental organizations to build up their capacity to provide for the needs of the population.
- Main effort was to provide humanitarian assistance and medical care operations with a priority in Leogane.
- End State achieved when Canadian Entitled Persons had been evacuated and when relief agencies had taken over the aid responsibilities from the Canadian Forces.



## CF Contribution

- Search and Rescue (including Urban SAR)
- Emergency Medical Services
- Food and Water
- Engineering Assistance
- Mobility by Air, Land, and Sea
- Defence and Security Support





## Op Hestia Activities: LUSAR





## Op Hestia Activities: DART Medical



## Op Hestia Activities: Engineers





## Op Hestia Activities: Engineers





## Op Hestia Activities: Navy



## Op Hestia Activities: Air Force



# Mission Challenges and Lessons Learned

- New Concept
- Loading Priorities
- Communications
- ROWPU Problems
- Heavy Equipment





# Redeployment and End of Mission

## ■ Accomplishments

- 4620 Canadian Entitled Persons evacuated
- 22,290 patients treated
- 1,404,940 individual meals distributed
- Helicopters (one CH-124 Sea King and 6 CH-146 Griffons)
  - 196 individual flights, 1075 flying hours, 456,804 lb cargo moved
- Air Lift Assets (CC-130 Hercules, CC-177 Globemasters, Charters)
  - 5447 passengers, 5,265,592 lb cargo over 4000km air bridge from Canada
- DART
  - Distributed 2,585,007 L purified water, opened highway between Leogane & Jacmel



# The Philippines Hurricane 2013



# The Canadian Forces Mission

## ■ MISSION:

- JTF-Philippines will enable the provision of humanitarian assistance to the affected population on PANAY Island, PHILIPPINES, commencing 11 Nov 13
- In order to save life and reduce human suffering
- Until such a time as HN and humanitarian partners are able to meet assessed needs to pre-Typhoon standards





## The CAF Contribution

- Mobile Medical Teams
- Engineering Assistance
- Water Purification capabilities
- Air Mobility
- Logistics Support
- Cultural Liaison Officers



## Op Renaissance Activities: DART Medical





# Op Renaissance Activities: Engineers





## Op Renaissance Activities: Air Force



## Op Renaissance Activities: Liaison Officers



- “Because our liaison officers were born here, speak Tagalog and are very familiar with the country’s culture, they are helping us build relationships based on trust, whether it is the local population or municipal authorities of small remote communities.... Without the usual cultural filters, people feel better understood, which allows us to reach them much more easily and adequately evaluate their needs with the objective of providing them with maximum support.” (Lt-Cdr Robert Brunner CO DART CIMIC team)





## Op Renaissance Activities: Co-Location



- “This is the most effective civil-military coordination we have ever seen at the field level and should be used as a model for future disaster response operations.”  
(Baroness Valerie Amos, UN Under Secretary General for Humanitarian Affairs)





# Mission Challenges and Lessons Learned

- Distance
- Communications
- Situational Awareness
- ROWPU
- Heavy Equipment
- Loading Priorities



## Redeployment and End of Mission

### ■ Accomplishments

- 6525 patients treated
- 2,688 Water/Wash/Hygiene kits delivered
- Helicopters (three CH-146 Griffons)
  - 828 passengers, 184 individual flights, 347 flying hours, 10,325 lbs shelter/building material delivered
- Air Lift Assets (CC-130 Hercules, CC-177 Globemasters, Charters)
  - 230,485 lbs food and 59,536 lbs humanitarian assistance delivered
- DART
  - Purified over 519,000L water, cleared 131km road, conducted 14 construction projects, 2500 person evacuation camp built, repaired 8 generators for hospitals



# Anticipatory Trends Analysis

- **Aim:** To highlight strategic trends that may affect the frequency, indicate the type of disaster, and identify the potential locations, of future humanitarian assistance missions outside of Canada.

## ■ **Natural Disasters:**

- Climate Change (extreme weather, drought)
- Resource Scarcity (food and water shortages)
- Unstable Geography (volcanoes, earthquakes, coastal flooding)

## ■ **Man-Made Disasters:**

- States, Ethnic, Religious Conflict
- Population Growth
- Youth Bulges
- Urbanization



# Capability Gaps Analysis

- Aim: Based on the results of the Projected Trends Analysis, create a scenario set that includes every type of disaster, operation, and regional location that was determined to be probable.
- Approach: Populate each scenario with the required amount of
  - Supplies;
  - Equipment;
  - Personnel;
  - Effectiveness;
  - Time period.
- Aim: Conduct analysis on the validity of proposed solutions
- Approaches:
  - Working Groups;
  - Red Teams;
  - War Games;
  - Exercises.

## Conclusion: Lessons Learned for Future Missions

- Need for good civil-military cooperation relationships
- Need to continue the headquarters co-location concept
- Need to continue the Cultural Liaison Officers concept
- Need for metrics for ending humanitarian assistance missions
- Need to always be assessing HADR capabilities and areas for improvement





**Questions?**





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