

BC's marine industries are vulnerable to a range of natural and manmade hazards, but they are also a key emergency resource.

BY TIM LYNCH

Inter-ageny cooperation — from left to right, Mike Andrews from BC's Provincial Emergency Program, Roger McKellar from the Canadian Coast Guard and Capt. Bret Parlee from the Department of National Defense head out to perform facility assessment in Vancouver Harbour.

Facing a potential hazardous situation creates uncertainty for the management of any organization. Is it really an emergency? What is expected of me? Do we have a plan? Where is it? Does it apply in this situation? Who is in charge? The initial management decisions made during an emergency are critical to well-being of the people and communities involved, the environment, and organization itself.

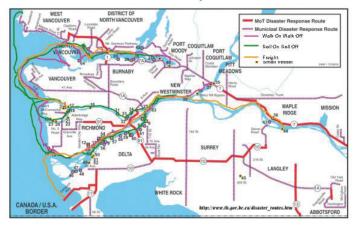
The shipping interests and port authorities that make up the marine communities in BC's Lower Mainland are all vulnerable to hazardous circumstances that can cause loss of life and damaged property as well as threatening the broader community. Furthermore, as demonstrated by SARS and avian influenza, communicable diseases arising in far off lands can spread among local communities. Being prepared for the unexpected these days also includes threats arising from the possibility of deliberate acts of violence through terrorism. Usually when such hazardous events occur, no local entity is spared some impact and the events can often have a regional, provincial and national impact on individuals, property and commerce.

First Response

The vast majority of emergency situations are handled at the local level by "first responders" such as police and fire brigade. Municipalities and regional districts in BC are responsible for planning for, responding to and recovering from emergencies and disasters within their jurisdictions. If the situation threatens broader provincial terrain or assets, or if there is a natural disaster threatening or impacting whole communities, the BC government's Provincial Emergency Program (PEP), which is part of the Solicitor General's office, will become involved in a supporting role. PEP is organized into six regions. During emergencies, these regional offices become known as Provincial Regional Emergency Operation Centres (PREOCs). The Provincial Emergency Coordination Centre (PECC), located at PEP Headquarters in Victoria, coordinates these Centres. The BC Lower Mainland is managed by the South West Regional Office/PREOC located in Surrey.

When a hazardous situation occurs in some part of a region

Lower Mainland-Disaster Response Route Network



To facilitate the movement of equipment, supplies and personnel in the event of an emergency or disaster, the Greater Vancouver Regional District has planned a network of emergency transportation routes, many of which are marine transport routes. Land routes are marked with signs (far right) to keep them clear during emergencies.

there is a need to assess the circumstances and determine what resources are required to address the local scene, respond to the event and prevent (or reduce) its impact from spreading where possible. If necessary, this information is relayed to the PREOC, usually through local fire brigade and police personnel and the jurisdiction's emergency operations centre (EOC). In the case of a marine disaster, the Federal government would have jurisdiction and the Coast Guard and port authorities would have a similar communications role with their PREOC.

The PREOC is mandated to facilitate access to resources and services that will assist local first responders manage the situation and to coordinate any regional/provincial fallout associated with the event. A critical component of emergency management in BC is the obligation of both public and private agencies (which would include marine businesses) to have a plan that will ease the demand and complement the services available through their local PREOC. A PREOC can support planning response actions by assisting with coordination and the provision of resources. The PREOC organization may also provide advice and guidance in the execution of a plan. All provincial ministries and agencies and emergency personnel in BC operate within the criteria set down by the BC Emergency Response Management System (BCERMS), an organizational structure that streamlines emergency response, communication, resource acquisition and more.

Marine Transportation: An Emergency Resource

When the magnitude of the situation is assessed and necessary resources are identified, the challenge is then to ensure appropriate transportation is available to the site. Clear transportation corridors are essential. Daily road traffic gridlock in BC Lower Mainland and the possibility of key transportation infrastructure such as bridges and motorways being weakened or damaged can inhibit efficient transportation.



DISASTER RESPONSE ROUTE

EMERGENCY VEHICLES ONLY DURING A DISASTER

All levels of government within the Lower Mainland are committed

towards having in place a state-of-the-art emergency response capability. This is being accomplished through the eight members Joint Emergency Liaison Committee (JELC). This Committee is a partnership between the Greater Vancouver Regional District (GVRD) and the Province of British Columbia. It is co-chaired by the City Manager of Vancouver and the Deputy Minister, Ministry of Public Safety and Solicitor General. Using a cooperative model it focuses on cross-jurisdictional emergency planning and preparedness through establishment of task focused working groups.

During an emergency, integration of transportation between land and water becomes critical in a region like the BC Lower Mainland. The Disaster Response Route (DRR) system being developed across the Region through JELC serves to take advantage of the land/water interface during a regional emergency. DRRs are not evacuation routes; they consist of a pre-designated network for moving responders and resources. The DRR initiative is focusing on the multi-modal movement of resources and personnel into, out of and around the Lower Mainland using roads, rail, air and marine options. The marine option is particularly attractive as every jurisdiction in the region has some element of waterfront, either on the Fraser River, Burrard Inlet (Vancouver Harbour), Georgia Strait or Howe Sound.

When a disaster occurs key people known, as "first responders" need to get to the site as quickly as possible. A first responder is defined as one whose presence is required in the first 72 hours to provide such services as: transport/treat the sick and injured; transport displaced persons; maintain law and order; extinguish fires and control hazards; control traffic (on DRRs) and evacuations; search and rescue; and assess damage and

restoration of critical infrastructure. These people will serve to restore damaged transportation systems, communications infrastructure, water supplies, gas supplies and electricity supplies as quickly as possible.

Defining the Transportation Grid

The DRR system is still evolving in terms of the plan being fully implemented across the region. It involves municipal and provincial roads as well as rail and airplane routes. This part of the plan is known as the "plains, trains and automobiles" component. The concept of using marine resources during disaster involves three aspects: "Walk On/Walk Off" to get first responders to work and to incident sites; "Roll On/Roll Off" docking facilities to move vehicles and heavy equipment and freight; and lastly, the JELC/DRR Working Group is talking with the three ports in the region that are considering the "Short Sea Shipping" concept of moving freight into, out of and around the region.

Doug Allan, JELC Manager responsible for the DRR Working Group said, "This dynamic system of designated routes can expand and contract as the need of the situation dictates. By adopting a multi-modal approach incorporating marine transportation as one component of emergency planning it enhances public confidence during a disaster. The DRR gives priority access for resources (facilities, staffing and equipment) needed in a disaster to provide life safety and property protection. It will also accelerate business resumption and could provide an economic benefit for participants."

Commenting on the relationship between BC and the neighbouring US states, Mike Andrews, PEP Regional Manager said, "We have strong working relationships with Washington State that are coordinated through PECC. We recently had a cross-border exercise called "Pacific Peril," which was a scenario of a 9magnitude earthquake and tsunami affecting eight hundred miles of the Cascadia fault zone, which impacted Northern California to Vancouver Island. My expectation was that Washington would be our primary source of assistance, certainly they were there but Alaska really rose the occasion, which surprised me. Alaska has a large air command and they have a lot of coast guard resources as well and they have airborne search and rescue team. In the event that they were not directly impacted by the situation they would be able to assist other players in the US and most certainly BC as well. All jurisdictions in the North West have agreed under the Pacific North West Emergency Management Agreement



Anchoring the GVRD's emergency marine transportation routes are designated walk-on/walk-off and roll-on/roll-off loading facilities. This walk-on/walk-off site is located in Cates Park in North Vancouver, and it also includes limited roll-on/roll-off capability thanks to the boat launch, which can accommodate landing craft or ramp barges.

to provide mutual aid should a catastrophe such as a major earthquake hit the area." Andrews had the opportunity to simulate the activation of the multi-modal DRR network during this exercise and concluded, "Though all modes were simulated to some extent, it became apparent fairly quickly that moving resources by water would provide the most effective response. From my perspective, it was a true validation of our efforts to date; the roads and the marine element are the network's backbone, air and rail give us options. We plan for the worst and hope for the best; let's hope we never have to face the ultimate test of this initiative."

Marine Challenges and Solutions

Describing the challenges at the operations level, Doug Moore, emergency management coordinator at Vancouver Port said, "The greatest challenges during an emergency is sorting out all the stakeholders that may be involved. Our port borders eight municipalities, each with their own fire and police departments.

In addition, we have to deal with ships from ninety trading economies. Shipping companies and Captains make decisions that relate to the situation at hand, and at times may require clearance from their headquarters on another continent. In order to identify these potential issues, terminals conduct exercises involving ships that are docked at the time. These exercises pro-

vide valuable planning information." Complementing this sentiment, Murray Day, Director Emergency Management, Justice Institute of BC said, "Marine incidents pose interesting challenges in constructing exercises, as the control of the incident from a site perspective can quickly expand into a larger operation given the diverse conditions associated to such incidents on the water."

The involvement of Department of National Defence (DND) during an emergency is seen as a resource of last resort in aid of the civil power situations. Requests for all federal resources, including the military, are coordinated through PECC. The DND has been proactive in integrating its planning with other agencies and levels of government. DND has representation on the DRR working group, and the military may have a liaison officer present in active PREOCs, if the situation requires. As logistical experts, the military has been consulted regarding capacities and capabilities issues associated with the DRR initiative. Sapper Paladin is a series of exercises where the 1 Combat Engineer Regiment dive team from Edmonton has done assessments of key DRR facilities at nodes for the past three years. The building of relationships at this level and the sharing of capabilities and perspectives are seen as a direct benefit to enhancing response.

The most visible part of marine emergency response at the federal government level is the Canadian Coast Guard (CCG). The CCG is a Special Operating Agency of the Department of Fisheries and Oceans. The Department has a number of existing government-wide, mission-critical mandates in the area of emergency management such as (but not limited to): the maritime component of the federal Search and Rescue System; communications; traffic; and environmental response. CCG Officers at the Joint Rescue Coordination Centre in Victoria are responsible for coordinating the response to maritime Search and Rescue incidents including the tasking of CCG recourses to these incidents.

In a disaster setting, the department's key responsibility is to restore essential client services, such as those listed above. Secondarily to serving these Department priorities, CCG may provide support to other ongoing emergency activities if asked to do so by PEP and private/public agencies. These requests would typically be made through the CCG's Regional Operations Centre. CCG collaborates closely with PEP in its emergency management practices in the Lower Mainland.

Emerging Diseases: Ports and Quarantine

Discussing the possibility of communicable diseases coming ashore in Canada via ports of entry Dr. Perry Kendall, BC's Provincial Health Officer said "The control of communicable diseases at ports of entry is generally the responsibility of the Public Health Agency of Canada, under their Quarantine and Migrations Health Program (QMHP) BC Health officials (Medical Health Officers and Environmental Health Officers) from regional Health Authorities, as well as the BC Ambulance Services, work closely with their federal counterparts in preparing for and management of any potential importations of communicable diseases. Support for such situations is also provided by the BC Centre for Disease Control, and the Office of the BC Provincial Health Officer would be involved in any situations that have provincial or national implications."

At the federal level, the Canadian Public Health Agency (CPHA) oversees the Quarantine and Migrations Health Program, which serves to implement the Canadian Quarantine Act and Regulations. QMHP helps protect Canadians from the importation of dangerous and communicable diseases that might pose a threat to public health, through the international movements of

persons, goods, and conveyances (airplanes, trains, buses, automobiles, ships, boats and such). To safeguard the health of Canadians, QMHP coordinates Canada's response to outbreaks of international disease. Health-related contingency plans and other emergency measures developed with provincial public health programs and private sector partners can implement through QMHP. As a member of the World Health Organization (WHO), Canada has agreed to voluntarily support and implement the International Health Regulations where applicable.

Planning — The Ultimate Defence

Public Safety and Emergency Preparedness Canada (PSEPC) is responsible for coordinating the federal response to emergencies. The Department has 11 regional offices, including a BC office located in Victoria and Vancouver. The BC regional office maintains a close working relationship with PEP. Most incidents or events are managed at the local or provincial levels. In these situations PSEPC monitors and provides advice and support, as required. When an event is complex or impacts several federal mandates, the Department coordinates the federal response to the emergency, including responding to provincial requests for federal assistance. The Department also provides direct support to other federal departments engaged in emergency management (for example, the Canadian Food Inspection Agency in the case of an avian influenza outbreak). Describing the way the process works overall, Wayne Hirlehey, Operations Officer, PSEPC, in Victoria said, "Emergency management works from the bottom up. Companies are initially responsible for managing any unexpected incident they are involved with. They can call on municipal and provincial authorities to help them if they need additional help. The federal government rarely gets involved directly unless of course some act of terrorism happens when the RCMP takes over."

The "bottom up" theme stressed by Hirlehey has been a consistent message relayed by all emergency preparedness professionals interviewed for this article. If an organization has no plan for what needs to be done when something unexpected happens, then the emergency really is an emergency. When there is a well-rehearsed plan in place the situation should be handled professionally, in a more "business as usual" mode of operation.

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For Information

Provincial Emergency Program of BC

http://www.pep.bc.ca

Information on DRRs

http://www.gvrd.bc.ca/services/JELC.htm http://www.th.gov.bc.ca/disaster_routes.htm

Quarantine and Migration Health Program

 $http://www.phac-aspc.gc.ca/cepr-cmiu\\ophs-bssp/quar_e.html$

Public Safety and Emergency Preparedness Canada (PSEPC)

http://www.psepc-sppcc.gc.ca/index-en.asp

Justice Institute of BC

http://www.jibc.ca