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CCRS emergency response activities internationally

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The Emergency Management Team at the Canada Centre for Remote Sensing (CCRS) provides expert support on an international basis similar to that made available for domestic emergencies. For more information, see CCRS Emergency Management Activities in Canada.

International emergency response, 2008

In 2008, CCRS was heavily involved in responding to flooding events for the international community.

Afghanistan

In response to an urgent request from the Department of National Defence (DND), CCRS monitored several areas of Afghanistan throughout March 2008 (see Figure 1). There had been extensive flooding in southern Afghanistan the previous year, so the exercise was conducted as a precautionary measure. The Emergency Response Team at CCRS received an award from the North American Treaty Organization (NATO) and the International Security Assistance Force (ISAF) for its efforts.

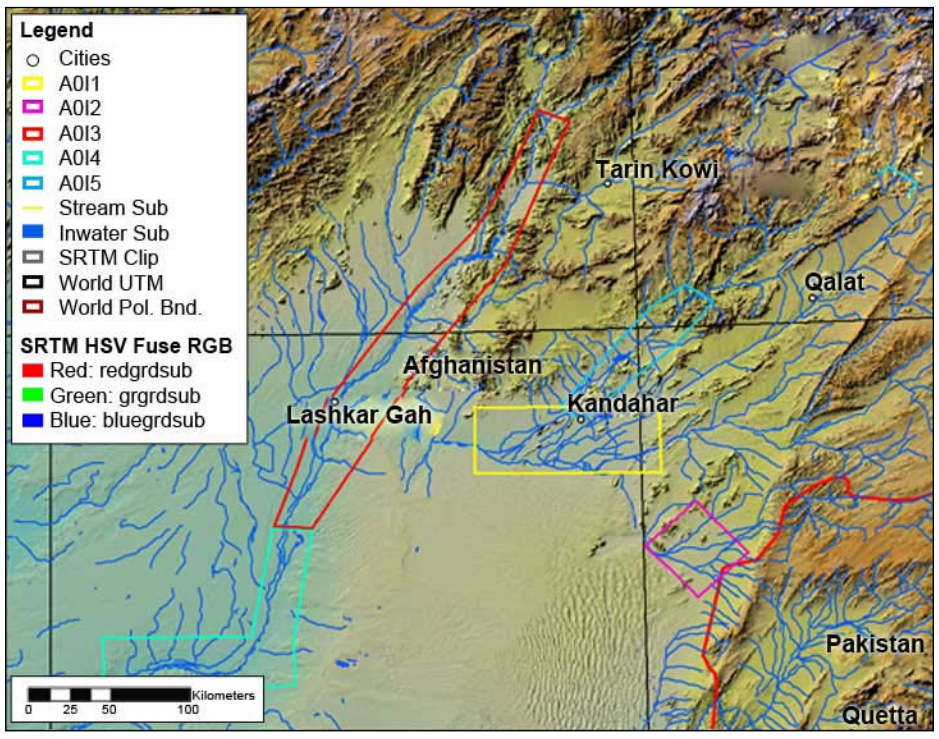

Figure 1. Afghanistan flood monitoring

Figure 1 shows the areas monitored for flooding in support of deployed DND troops and civilians in southern Afghanistan in March 2008.

Haiti

Severe flooding began in Haiti in late August 2008, caused by four major storms hitting the area in less than one month. In late August, tropical storm Fay and Hurricane Gustav pounded the Caribbean country in succession. Hurricane Hanna next hit in the first week of September, and the northern part of the country was then struck by Hurricane Ike on September 7, 2008. CCRS was once again asked to contribute flood mapping expertise.

The levels of flooding were mapped from September 9 to 12, as shown in Figure 2, and the resulting products were made available to DND, humanitarian organizations and the International Charter on Space and Major Disaster. In addition, there were daily communications with USAID, which was coordinating the humanitarian effort in Haiti.

In Figure 2, the BEFORE image (on the left) is an archival ALOS radar scene from February 9, 2008, used as a baseline. The AFTER image (on the right) shows a RADARSAT-2 scene from September 12, 2008, combined with derived multidata geographic information system flood extent products that highlight a recession of water levels from September 9 to 12.

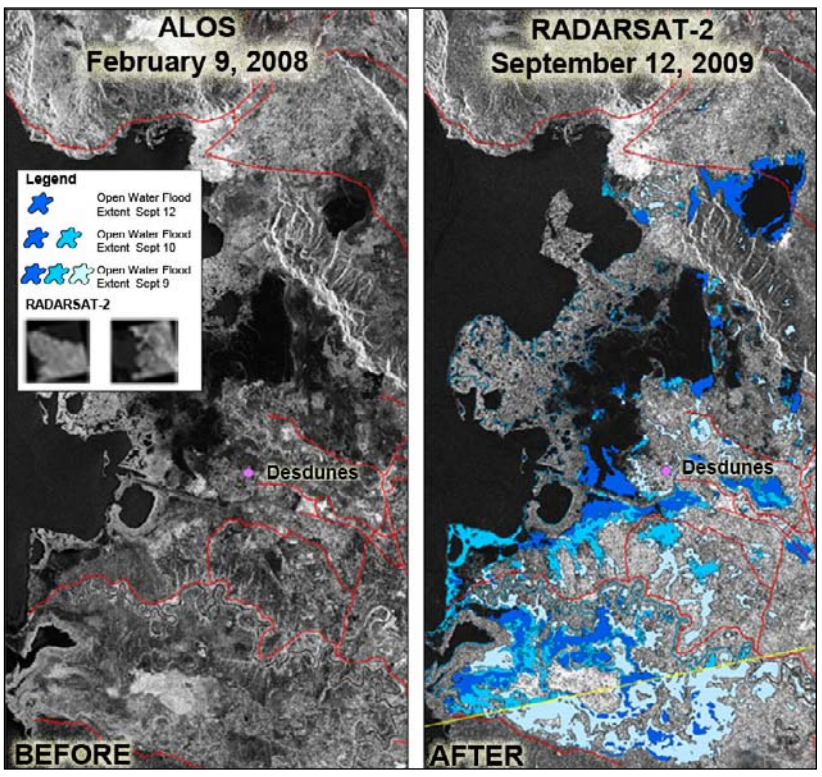

Figure 2. Post-Hurricane Ike Flood Extent – Gonaïves, Haïti;

Myanmar

In early May 2008, cyclone Nargis hit Yangon, Myanmar, causing extensive flooding, severe damage to infrastructure, and significant loss of life (62 000 were estimated as dead). The Canadian military Disaster Assistance Response Team (DART) was on standby to assist the people of Myanmar. CCRS provided up-to-date geo-spatial information to DND on the status of the floods (see Figure 3). A time series of images was processed for May 7, May 10 and May 12.

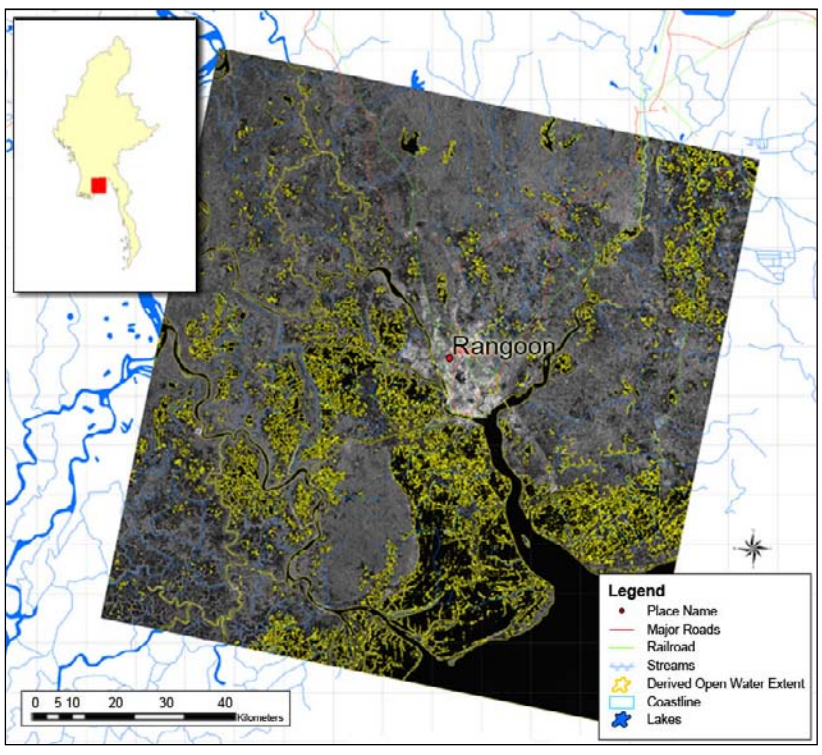

Figure 3. May 7, 2008, RADARSAT-1 derived open water extent – Rangoon, Myanmar

Figure 3 shows the extent of the flooding caused by cyclone Nargis in May 2008.

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