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Fast-moving floodwaters surrounding High River Hospital
three-feet deep at 3 pm on June 20 (Photo: Marian Bryan, AHS)

Alberta Floods: Crisis at High River



Situational report meeting at High River EOC
(Photo: Dann St-Pierre, VE6TD)



High River EOC Incident Commander Ross Shapka briefs
Alberta Premier Alison Redford (Photo: Ian Willumsen, VA6IAB)



Ray Bourne, VE6LG (centre) updates Vince d'Eon,
VE6LK (right) on EOC status prior to shift change
while Charles Nalder, VA6BCB listens in (left)
Photo: Tom Cox, VE6TOX (AEMA)



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Hamilton ARC
Hosts RAC Annual
General Meeting
on October 5

PUBLIC SERVICE / ARES

HOW FIELD DAY BECAME A REALITY: THE STORY OF THE HIGH RIVER, ALBERTA FLOOD OF 2013



Fast-moving floodwaters three-feet deep at 3 pm on June 20, taken from the 2nd floor of the High River Hospital (Photo: Marian Bryan, AHS)

Vince d'Eon, VE6LK – Foothills Amateur Radio Society/ARES, Okotoks, Alberta
With contributions from Kerry Atkinson, VE6GG and Ian Burgess, VA6EMS

What follows are three first-person reports of the happenings in High River Alberta from June 20 to 22 and the support that Radio Amateurs provided. Unprecedented flooding rapidly struck the area after 100 millimetres of rain and above average temperatures in a 36-hour period. High River is located just east from the Foothills of the Rocky Mountains and is about one hour south of Calgary.

Vince d'Eon, VE6LK, reports:

It was Wednesday night before Field Day about 9 pm. Scott Nalder, VE6OBL, Dann St-Pierre, VE6TD and I were sitting around my dining table and giving some guidance to our Field Day commander Scott, a newer ham in our club (the Foothills Amateur Radio Society) based in Okotoks Alberta, south of Calgary. Scott earned his Radio Amateur operator's certificate about four years ago and is very well prepared and interested in Emergency Communications and all things Amateur Radio. The weather was pretty lousy that night with lots of rain, and the weather forecasters were calling for up to 100 mm of rain and warm temperatures within the next 36 hours. *Of course*, I thought to

myself that *the weatherman is mostly almost wrong with a forecast*, but I really hoped for bad forecasting skills as the rain hit the window and my back deck. Snow in the mountains sticks around until mid or late July but this year would be very different.

Little did we know our Field Day would be one of the largest EmComm events the Province of Alberta had ever seen and testing our limits far beyond our Field Day planning. Just 24 hours after our planning meeting was held, 18 towns and municipalities would be under a State of Local Emergency for the worst flooding ever seen here.

But I'm getting ahead of myself...

The Foothills Amateur Radio Society (FARS) is based in Okotoks, Alberta. It's my hometown, having moved from Ontario in October 2012. Our members commute from 100 kilometres away to attend our social gatherings and meetings. Our repeater network is fully linked, hub and spoke style, and covers an area of approximately 50,000 square kilometres. We've been working with local



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townships for 20+ years helping with floodwatch, providing repeaters for those supporting forest fires, and the more fun events like the local parades and festivals. Within FARS, I'm one of two Assistant Emergency Coordinators (AEC) and Scott, VE6OBL, is the other. Since attaining my Amateur Radio certificate in 2002 I've been heavily involved in public service events in all types of terrain in two different provinces. I enjoy the work and to be of service to others.

Our EC Wally Gardiner, VE6BGL, was out of the country at this time, thus Scott, VE6OBL, and I were on call as his backup. I had met the Town's Incident Commander (IC) over breakfast just a few weeks earlier with Wally and got to know him. We are fortunate in that the Town has been integrated with FARS and ARES for a number of years and we are a key part of their plans. Thus I was happy to have that opportunity to meet the Town's IC and I thought *it's always nice to know someone you may need to work closely with*.

The next morning, 12 hours after our Field Day dining table planning session, the Trans-Canada highway was closed in Canmore, washed out by Cougar Creek. Highways in other areas were also reported to be in poor shape or with landslides from the heavy rain. Flooding was becoming a possibility for the City of Calgary and the Town of High River. At this point I was pretty certain that my weekend volunteering at a public service event in the mountains wouldn't happen. Later, I learned it was cancelled owing to washed out roads and bridges.

Thursday morning I kept an eye on the news and Twitter feeds while at work. For some reason that day I'd packed both of my HTs and spare batteries where I normally carry just one. Maybe I felt something was going to happen as I left home that morning and was hoping that I would be so very wrong. The Twitter feeds were coming in fast and furious with news of road closures, local flooding and all things that heavy rain plus warm temperatures can bring.



Ian Willumsen, VA6IAB, at the High River EOC
(Photo: Tammy Scheirman, VA6TSS)

Ian Burgess, VA6EMS, reports:

When browsing the morning news I read that the Calgary Area was expecting heavy rains with possible localized flooding. Upon reading this I placed a call to Scott Nalder from FARS, as he was the liaison that was established between my unit in Calgary and FARS. I told Scott that if he needed any resources to contact me and I would organize people in Calgary for FARS deployment.

Kerry Atkinson, VE6GG, reports:

I received a call from one of our AECs at about 1230h advising me that the Provincial Operations Centre (POC) had requested ARES to staff the radio room. As he was unable to attend I proceeded to inform my boss that I would be "off for a while due to the flooding" and then proceeded to activate the Edmonton group and drive to the POC. During this drive, one of my newest ARES members Barry, VA6MIA, took the logistics net and began coordinating volunteers for our response. I was then in telephone contact with the Alberta SEC Curtis, VE6AEW, who informed me that he had most of the Southern Alberta Repeater Association (SARA) linked in and was on his way to the POC as well.

On arrival, I started up the radio room, found the Operations Chief and asked what he wanted. His response was that communications were failing into Canmore, High River and Exshaw and asked us to establish RF links with Amateurs in that area.

Curtis, VE6AEW, arrived about that time and after a short briefing he began to plot a way to get repeater coverage into the affected areas. High River became our priority when the Alberta POC lost contact with the High River EOC about 1430h.

Ian, VA6EMT, reports:

Calgary Regional ARES was activated via email and Twitter with a Single Point of Contact for volunteers being Dan, VA6DJK. Dan was taking phone, radio and email traffic sorting out a chart of who was available and for how long. This chart was constantly being updated throughout the deployment. The initial response happened very quickly.

Vince, VE6LK, reports:

I received a phone call from our ARES SEC at the Provincial Operations Centre about 1330h that day. The order was simple: to deploy to High River as the situation was rapidly worsening. There were no other details given about staffing needs overall as all communications with High River EOC were unavailable.

The last time I worked the Emergency Operations Centre in High River was in June 2005 and the EOC was in the Town Hall. The event was flooding then, too. Later that month Calgary had a flooding event. I'd later learn those were only glancing blows compared to what we were about to face.

I arrived at the EOC some 2.5 hours later owing to many road closures from high water, normally a 45-minute drive. En route the cellular networks were so jammed that it was unpredictable if my SMS would get through to anyone let alone a phone call. During my travels I was able to raise Scott, VE6OBL and Dann, VE6TD, on our repeater network. They dropped what they were doing and got home for their go-kits and equipment. Along the way Ian Willumsen, VA6IAB, joined us. Dann, Ian and I would become the core EOC team in High River.

Kerry, VE6GG, reports:

We were in contact with Vince who was having major issues getting to the High River EOC with road closures and, from what we could tell, non-admission to the townsite owing to the evacuation order. I went to the Operations Chief, the Transportation Chief and the RCMP liaison in the POC, and explained the situation and got a spot that Vince could access High River with guaranteed passage. This was relayed to him by Curtis. About 15 minutes or so later Vince advised he was at the EOC in High River.

Shortly after, there came a knock on the radio room door and there was the Ops Chief with a person from Alberta Health. "How soon will you have communication with High River?" Our response was "right now". I don't think he expected us to be fully mobilized that soon! Over the next 17 hours we would pass messages between High River and the POC since Amateur Radio was the only reliable communication link between these two centres.

Vince, VE6LK, reports:

Mission one was to establish a link to High River, which was previously cut off from the Provincial Capital. We had deployed into one of the worst hit areas in under three hours, and in doing so significantly exceeded expectations of those in the POC.

High River is a small town about a 45-minute drive south of Calgary. It is mostly flat with elevation changes of 100-feet. They have a well-rehearsed Emergency Operations Plan as they activate each spring. They had already activated once this year for flooding.

When I got to the High River area, my cellphone stopped working; the Telus network had failed. Traffic lights were out almost everywhere, stores were dark and there was lots of water in parking lots. It was quickly apparent to me that this flood would be much different than in 2005. *The spot where I meet the gang of fellow Radio Amateurs for breakfast each Saturday would likely be closed for a while*, I thought, as I passed by and saw water in the lobby.

From what I saw earlier on Twitter the EOC had been moved from Town Hall to the Firehall a few hours earlier owing to a flash flood surge. As I arrived there was discussion about leaving the Firehall as the waters were still rising at an alarming rate. A mandatory evacuation for the Town of 13,000 residents had been declared. Evacuation centres opened up in nearby towns. Phone lines and one major cellular network were offline. Power was spotty but



High River EOC Incident Commander Ross Shapka (at right, in green) briefs Premier Alison Redford at centre, in red) on Saturday morning June 22, 2013 (Photo: Ian, VA6IAB)

fortunately stable where we were. Helicopters were everywhere flying a variety of missions. It was like a scene from a movie.

Mission two was to get an operator into the Hospital, which was surrounded by four feet of fast-moving water. We talked of helicopter and boat deployment, but in the very early stages the flights weren't coordinated by the Town and the flight never happened. Waters were moving too fast to safely explore the option of a boat; this was confirmed by a quick trip in a loader truck by two operators with handheld radios. This operator was needed to support the upcoming evacuation of the hospital; we'd later get the two operators in on Friday morning when waters had receded from the building.

With floodwaters threatening our temporary EOC at the High River Firehall, we moved down the highway to the Nanton Firehall; normally a 25-minute drive but now complicated by road closures, it took us an hour. Scott, VE6OBL, had begun the recruitment of field operators along with Doug Howard, VE6CID and Andrea Howard, VE6SEV. When I started driving to Nanton it was apparent that I could not manage the entire situation so I transferred Net Control and Scheduling to Scott. I told him it was called a field promotion and gave him some general guidelines on what we needed and when. He quickly assembled five other people to work from his home – our to-be Field Day site, already equipped with food and drink for 15 people. Like myself, they'd go around the clock for a lot of hours with few breaks.

The decision to split off Net Control from the High River EOC happened out of logistical need but turned out to be the best thing we did to help the Town of High River and Alberta Health Services (AHS). It allowed those of us in the High River EOC to focus purely on the job at hand. To Net Control, we were just one of seven field sites for which they were handling traffic. We will follow this approach again to better manage traffic.

Upon arrival at Nanton we established our radio links and a provincial teleconference via landline was starting in 10 minutes as the POC was urgently seeking an update. They hadn't heard from us formally in an hour; it could be because we were on the highway, a bit busy to take a phone call. With the teleconference over and the danger passed, we returned to the High River firehall some seven hours after I first set foot on the ground. We breathed a collective sigh of relief, but now the real work was starting.

Scott, VE6OBL, reported to me that we didn't have enough available people for Saturday's shifts at about this time. It's time for a call to a neighbouring ARES unit to see if they can help out.

Ian, VA6EMT, reports:

Late on Friday night Vince contacted me to request nine members for 0800h. With the list we were maintaining we had all members confirmed within the hour.

Vince, VE6LK, reports:

At 0030h on Friday I'm taking stock of the situation. At 1030h on Thursday the EOC moved. At 1800h we moved again. Then at 2130h a third time – back to High River Firehall. This is unprecedented. Sewer systems are down, water is coming from the reservoir, 90% of electricity is gone, phone systems are offline/overheating, the Town's website and IT infrastructure are offline and there is one working phone in the EOC. Some neighbourhoods are under 11 feet of water yet others are untouched. And my team and I are in the middle of all of this and keeping the Town connected to the outside world.

"When all else fails, Ham Radio keeps working", I think to myself. I placed a call to my Net Control headquarters and spoke with Scott, VE6OBL, about staffing, telling him what we needed and where. He'd decide the shift schedule and take care of it. But, he was short-handed for people tomorrow afternoon. I told him I'd arranged for Amateurs from the Calgary Area to help us – and they sent lots of people over the course of the next 48 hours. It's nice to know that you can rely on your neighbours! Keep in mind that during this time Calgary ARES is also supporting radio operators in Calgary, Canmore and Medicine Hat as a part of the Provincial response.

Our two missions were simple: to keep messages flowing between evacuation centres in nearby towns; and between the two hospitals in Black Diamond and High River back and forth to Alberta Health Services. At 0800h on Friday we deployed two resources into the High River Hospital which was beginning an evacuation owing to failed Town infrastructure. Our guys kept AHS informed of progress by the only method we had – Ham Radio – with radio operators at AHS' own EOC in Calgary. We pulled out of that Hospital at 0100h on Saturday after the last patient was evacuated. The Black Diamond Hospital was also evacuated owing to failing Town infrastructure. Keeping in mind that many communities were hit hard, hospitals in a few areas were under consideration for evacuation and the communications link was vital in making those decisions.

As integrated members of the Town's Emergency response program, we were active participants in the Situational Report meetings held through the day. We gave reports on our status as did those from Public Works, the Police, the Military, Alberta Health Services, Alberta

Emergency Management Agency and all others. We are honoured to be at that table and to serve.

Operations in an EOC are controlled chaos. We are privy to very much information that is highly confidential. We hear about everything yet see nothing so it's sometimes hard to grasp the reality of the situation. We worked shoulder to shoulder with those that had lost their homes yet soldiered on with much professionalism. I was greatly moved by this. Our temporary EOC was one-third the space of the normal area and, owing to the magnitude of the event, the EOC team was three times its normal size. It's hot, cramped and very noisy. We saw politicians from the Local, Provincial and Federal levels come in for meetings.

It's a place that only level-headed and well-trained operators should work in, yet we still managed to have a few less-experienced folks by our sides as message runners so they can learn for the next big event.

It's now Saturday morning and the sun is rising. Thanks to a satellite services provider, we now have Internet, laptops and some VOIP phones in the EOC. Up until now, everything's been done with pen and paper. Telus has delivered a mobile Cellsite-On-Wheels in the area. Cellphones are available for all EOC team members. I finally get a few minutes early that morning to catch up on the news with my iPad and to plan our de-transition from the EOC.

When the phone lines and Internet were stable, we had completed our missions and we stood down at 1330h. We were no longer required, we did what needed to be done and when it needed to be done. We left for the site of Net Control, Scott, VE6OBL's house, for a meal and a debrief meeting. We needed to just unwind and share our experiences. Any discussion of continuing with our Field Day plans were met with friendly objection – after all, we were pretty tired and emotionally tapped. I returned home at 1800h, some 52 hours after I picked up my gear from my home at the start of the event.

Our winning edge was our ability to deploy rapidly and establish net quickly and professionally. It was also key that we have an excellent ARES organization in Alberta that is well-organized. We regularly communicate as ECs and AECs, and have a well-documented and up-to-date resource guide outlining repeaters and phone numbers thanks to Curtis, VE6AEW and his provincial team.



Vince d'Eon, VE6LK, (left) waiting to give status report at Saturday morning situational report meeting at High River EOC alongside Canadian Military (centre) and Ross Shapka, Town of High River Incident Commander (right) (Photo: Dann, VE6TD)

We quickly built bridges with all those we were there to serve and established with them what we could do for them and what we could not. And we proved that a group of Radio Amateurs are really Professional Radio Operators. The difference is that we receive no pay – and isn't that the only difference between a Professional and an Amateur?

Kerry, VE6GG, reports:

I need to praise the small group of very dedicated people in Edmonton. 95% of us are working full time. These people stepped up, rotated on 12-hour shifts to keep the Provincial Operations Centre manned and communications open from Thursday until Monday. Curtis, VE6AEW and Kiernan, VA6IP, drove on Sunday to southeastern Alberta to set up a link to Medicine Hat, a 900-kilometre roundtrip. We used D-Star and HF with actual messages passed in this disaster. Everyone that was involved in Edmonton put forth an effort to support the southern areas and continued right up until the POC stood us down on Monday at 1200h, almost four full days later.

On leaving, the on duty Incident Commander came by, stuck out his hand, and said Thank you, to the Edmonton Team, and all those that worked in Southern Alberta, especially High River. For a group of Amateurs, you guys truly are professionals.

Vince, VE6LK, reports:

I can't be more proud of the entire FARS and ARES teams from all areas. We had a team that exceeded 50 Radio Amateurs working around the clock delivering almost 700 hours of effort in providing a critical service – communications – when an entire town needed us the most. We are a blend of new-ish Hams that were well-prepared along with number of very experienced Hams.

I started this story about Field Day and I will end it the same way. I'm very pleased to say that Field Day exercises plus regular Net participation gave us the skills we needed. I encourage everyone reading this article to do these simple things if they wish to help in times of need.

Of course if I did file a contest entry with the ARRL, our exchange would be 5 Foxtrot Alberta for the number of control stations we had on-air and operating from an EOC. We'll probably win something for the sheer volume of traffic combined with interactions with governmental agencies alone! Ya know, I think I'll petition the ARRL for a new category: operating from an EOC during Field Day under actual Emergency Conditions. Hmmm...

