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Operational Efficiency
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Fire and Emergency NZ NHQ

Himatangi Beach Rural Fire

3rd Alarm Rural Fire Debrief



WHAKARATONGA IWI

FIRE
EMERGENCY



Debrief conducted at Foxton Fire Station 25 October 2018

Incident number: F2626104

Incident Date: 8 October 2018

Operational Efficiency and Readiness

The purpose of Operational Efficiency and Readiness (OER) is to support the National Commander Urban and National Manager Rural to achieve their responsibilities for the "Operational Efficiency and Operational Readiness" of Fire and Emergency New Zealand.

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The National Operational Efficiency Manager reports to the Fire and Emergency NZ Audit and Risk Committee to provide an impartial and unbiased ethos across all operational auditing activities.

Purpose of Debrief

OER approached the Area Commander, Whanganui, and requested to conduct a command debrief with Officers of Urban, Rural, and Defense personnel in relation to a rural fire that occurred on 6 October 2018. This was an opportunity to assess the integrated urban, rural and Defense response and subsequent management of a rural incident in the Fire and Emergency New Zealand environment.

The Manager, OER attended and facilitated the command debrief allowing unconstrained conversation to occur and to allow all participants to speak freely.

Methodology

The Manager of OER met with all the personnel who assumed a command role except for the first OIC. It was a facilitated discussion to ensure all command decisions were discussed.

Discussion

At 14:58 hours Central Communications Centre (Comcen) received a 111 call to a scrub fire due to a controlled burn out of control at 615A Himatangi Beach Road, Himatangi Beach. The first alarm response was for Himatangi 381 (HIMA381).

A 2nd alarm and a request for a tanker was made en route.

On arrival there were two fires in pine slash, one was about 200m² and endangering pine trees. The other was some distance away and likely to burn more scrub. HIMA381 completed a size up on the fire on the eastern side which was threatening the pine trees and established a compressed air foam (CAF) delivery on a flank to cut the fire off and prevent it travelling up the hill to the trees. Before the second alarm appliances arrived, the water was exhausted.

A sitrep indicating the above was transmitted at 15:16 hours and a 3rd alarm was transmitted.

Foxton 477 (FOXT477) and Foxton Beach 421 (FOXT421) arrived at the incident at about 15:25 hours. A road cone left at the entrance to the incident assisted both appliances in

locating HIMA381. FOXT421 supplied water to HIMA381 while FOXT477 was directed to contain the western scrub fire. FOXT421 with one driver would ferry water for the duration of the incident while the crew would assist in containing the eastern fire.

FOXT477 was redirected to the paddock with access to the western fire and established a hose to the rear of the eastern fire as well as a hose to the western fire. They ran out of water for about 15 minutes prior to the arrival of the tankers.

A safety officer was established and eventually there would be another appointed, enabling both fires to have their own safety officer.

WANGANUI1 was advised of the incident at 2nd alarm and due to the day being windy immediately responded. En route he heard the 3rd alarm being transmitted. On arrival at 15:29 hours he saw three pumps in attendance. He approached the OIC HIMA381, received a briefing and assumed command. The outgoing OIC was put in charge of operations. An incident ground sitrep was broadcast and an ICP was communicated with a sitrep to Comcen.

Rongatea 251 (RONG251) arrived at 15:41 hours and supplied HIMA381 with water. They refilled from a village hydrant and proceeded to assist at the western fire with FOXT477.

Two rural fire officers (RFOMANAWA1(PRFO), RFOMANAWA2(DPRFO) were also responding. En route two helicopters were put on standby, and at 15:40 hours a sitrep indicated two helicopters were responding. At about 15:46 hours both rural fire officers arrived.

The PRFO and DPRFO were briefed by the IC and the incident was sectorised. The command structure was:

- Incident Commander (WANGANUI1)
- Operations (PRFO)
- Air Operations (DPRFO)
- Eastern Fire (HIMA381 OIC)
- Western fire (RFO)
- Safety Officers one per sector. The reason this structure was chosen was there was an agreed need to have a good command structure and personnel were used where their strength and expertise lay.

A communications plan was established with a separate operations channel for each sector, a command channel and an air ops channel.

The DPRFO identified a helicopter landing site about 2km east of the fire. He went for a quick recce in the helicopter to ascertain the status of the incident and to identify water supplies. It was decided to use the treated clean water at the sewage treatment plant until the second helicopter arrived. The DPRFO assisted with setting up the bucket and foam and the helicopter was sent to work on the western pile and to wet down the slash piles near the village. All personnel working in this sector received notifications that air operations were to begin and moved crews to safety zones. A total of four buckets were initially dropped into this sector using

treatment plant water before the helicopter was redeployed to the eastern pile to prevent escalation to the pine trees. The DPRFO decided to use an alternative water supply for the helicopters from a lake near the fire. There would eventually be two helicopters working in separate areas for about 40 minutes

At 16:30 hours the Command Unit (HCU) arrived and a sitrep indicating a command point had been established was transmitted two minutes later. A sitrep at this time indicated there was a fire involving forestry slash and toi toi approximately 500mx250m. Two sectors were established and multiple deliveries put in place. One helicopter in use and in offensive mode.

At 17:07 hours a phone call was made to mobilise the Palmerston North OSU with hot and cold food for 45 persons.

Linton arrived with three demountable 2000l ultra high pressure (UHP) pods. These pods operate at 11000kPa and, with A Class foam, are specialist rural firefighting equipment. On arrival they reported to the ICP and were assigned the western fire to relieve FOXT477 to enable them to recommission and provide pump rescue response. VRRF volunteers arriving on tankers also assisted in the western sector with establishing dams and firefighting. Two of the UHP pods were set up at the southern and northern sides of the large western sector. The UHP equipment was reported to be extremely effective in extinguishing the fire.

There was concern raised by the IC at about 18:00 hours of the impact on the village due to drawing water from the Himatangi Beach village reservoir.

At 19:27 hours a sitrep indicated the rural fire force were taking over the incident from urban and a K45 was transmitted indicating the DPRFO was in command.

During the evening the fire continued to be dampened down, an excavator was used to assist by breaking down the piles and at 23:54 hours a stop message was transmitted

Findings

The following is a list of findings:

1. Additional tankers were requested en route. Due to three rural tankers failing to meet legal weight restrictions and being unable to respond there is concern there will be a critical gap for larger incidents in this area.
2. The first arriving officer used one of his crew to conduct an initial size up. It was identified there were two distinct fires with one having the potential to escalate into a small pine plantation. The western fire was not assessed. The local knowledge of the area assisted the OIC to decide to attack the fire near the plantation knowing the other wouldn't be posing the same escalation risk.

3. Initial tactics were to work from the flank with a CAF delivery to prevent the eastern fire from reaching the pine plantation. The western fire was sectorised and delegated to later arriving appliances. Subsequent commanders implemented air operations to extinguish the fire followed by ground operations to mop up.
4. Helicopters and additional tankers were requested by the RFO en route.
5. The incident management team was very effective with personnel assigned to roles where their expertise lay, rather than assume roles based on rural/urban principle and firefighters whether urban or rural worked together seamlessly.

The command structure was:

Incident Commander (WANGANUI1)

Operations (PRFO)

Air Operations (DPRFO)

Eastern Fire (HIMA381 OIC)

Western fire (RFO)

Safety Officers one per sector

This structure was reported to have been effective with the personnel with rural knowledge and experience managing Operations, Air Operations, and Sector Commander, and urban officers as Incident Commander, Safety, and Sector Commanders.

6. Army rural fire pods were requested by the RFO. These are not on a predetermined response and there is no MOU governing their use. The Ultra-High Pressure (UHP) pods from defense were extremely effective.
7. An ICP was established at the entrance to the eastern fire. The Command Unit provided a place to brief personnel, allowed for everyone at the incident to be accounted for, and produced an eIAP for incident management.
8. A four-channel communication plan was implemented. Command, Sector east, Sector west, air operations.
9. Two safety officers were appointed, one per sector. They managed all of the hazards within their respective sectors including ensuring ground personnel were in a safe area when air operations were conducted.
10. Although posing no health risk, concern was expressed by some ground crews regarding the use of treated effluent by air operations initially. Subsequently water was located from a more distant water source.

11. Thermal Imaging Cameras were effective in locating hot spots during mop up phase.
12. The new L1 RFF PPE was reported to be comfortable to wear allowing air to circulate, being two-piece, light and sturdy with ample pockets.
13. Rural PDAs had recently been amended and removed RFO from being notified of MIN first alarm vegetation fires. RFOs are resisting this change and feel if they were notified earlier there would be an earlier response of appropriate resource.
14. During work hours it is difficult to get an urban volunteer response in this area.
15. Although crew welfare regarding refreshments was considered after about two hours into the incident, the Operational Support Unit had to stop to buy the food, and then when served the hot food was still frozen. There needs to be a strategy in place to organise quick and effective meals to be delivered to an incident.
16. The replenishment of equipment used by volunteer stations at the incident requires more urgency. Consideration could be given to responding a VSO with hose and equipment on a trailer to enable pumps to be fully recommissioned equipment wise on leaving the incident.
17. Carcinogen management. The removal and bagging of PPE prior to leaving the incident was not fully understood. Rural firefighters have no paper overalls and have had no training regarding the carcinogen management programme.
18. Rural personnel are not supplied APR's, rather they have a vented P2 dust mask. This may stop particulates however might not be so efficient when working in smoky conditions.

Conclusion

Although not a large fire crews from Fire and Emergency rural and urban, as well as NZ Defence personnel attended this incident. These crews operated in a fully integrated and cooperative manner. Personnel were assigned to roles that best suited their attributes which resulted in the urban commander retaining control while rural personnel addressed the operational requirements.

The incident was well managed and the fire was extinguished quickly without causing unavoidable property damage to infrastructure or forest.

TICs were effectively used and NZ Defence provided state of the art UHP equipment which proved to be very effective in supporting strategy and tactics.

Although there were no injuries it was raised during the debrief that carcinogen management in the rural environment needs to be more actively managed, particularly breathing protection and post incident decontamination.

Commanders at this incident are to be commended for managing this incident with seamless integration that contributed to a good outcome.

Doug Bennett

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Fire and Emergency New Zealand

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