



LAKE OKAREKA FIRE FORCE

Quick Reference Manual for Firefighters Equipment and Procedures

INSIDE YOU WILL FIND:

Call Out Procedure

K-Codes

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Local Maps at Rear

LOFF Quick Ref Guide – Call Out Procedure

1	First Driver - Pull Out Appliance/s
2	Put in K1 (Press 1 SEND)
3	K35 to clarify situation and address (Press R then wait for response, say “Firecom this is 6571 (or 6575) K35”)
4	<p>If outside immediate call out area;</p> <ul style="list-style-type: none"> • Put incident address or GPS co-ord into Navigation System • At Tarawera roundabout put Routine Call with ETA arrival time (Press R then wait for response then “Firecom this is 6571 (or 6575), ETA to incident 15 min”)
5	On route: brief firefighters on likely roles and hazards
6	<p>Arrival Code (Press ARR ##) if first appliance, else K2 (Press 2 SEND and report to command vehicle)</p> <ol style="list-style-type: none"> 1. Brief firefighters, with action plan “PRIOR TO LEAVING APPLIANCE” 2. Site rep, when appropriate (after initial view of scene from cab) put in SITREP (Press R wait response and say “Firecom this is 6571, SIT REP ...”) <p>E.g. “... vegetation fire 50x100m, going to work with 1 high pressure and 2 forestry lines, location GPS East1234567 North1234567, K11 RFO and request RFO to put helicopter on standby” “... MVA 2 light vehicles, K41 1, 3 other casualties, going to work with first aid and road control, K11 ambulance, police and 2 light tow vehicles” “... slip and tree down across road, going to work with 1 chainsaw and road control, K11 road crew request digger to clear slip from road, K28 1 811” “... car fire, vegetation under threat, going to work with 2 high pressure lines, K11 rural fire 6575” “... purple medical response, entering residence with AED and oxygen”</p>
7	<p>Decide what other services are needed, or not needed? (Press R (non-urgent request or to cancel services) or P (for priority request of urgent backup services) wait response, say to request “Firecom this is 6571, K11 (appliances or services)” or say to cancel “K28 1 (appliances or services)”</p>
8	Continue to radio in SITREP’s as required to firecom
9	<p>Leaving the incident <u>(only do this once you are in vehicle and leaving scene).</u></p> <ul style="list-style-type: none"> • Put a stop message (Press R and say “Firecom this is 6571, K4#” for example K48 details to follow) if you are the last to leave the incident. • If you’re a secondary appliance put in a K3 ## based on the region you are now available in.

LOFF Quick Ref Guide – K Incident Codes Sent Via Tone

K Code	Message	Display
0	Not available	NOTAVAIL
1	Proceeding to incident	RESPONDG
2	In attendance at incident	AT INCDT
3**	On radio available outside area	AV IN**
4	On radio available in own area	AV OWN
5	At incident available for further call	AV INCDT
7	On station	ON STN
8	At residence	AT HOME
9**	Off radio (state location)	OFF AT**
55	Special Service Incident (e.g. MVA, storm event, medical)	
66	Non-property Fire (e.g. vehicle, veg, etc.)	
77	No Sign of Smoke / Fire / Emergency	
88	Property (Building) Fire (apparently small)	
99	Property (Building) Fire (well involved)	
First Appliance To Arrive Broadcasts Verbal Site Rep Message Soon After Arrival So Responding Appliances Are Aware Of Incident Status		

FIRECOM PHONE NUMBER: 09 486 7948 (Northern)

Bay of Plenty Coast - Area 8		Central Lakes - Area 9	
Town/City	Area	Town/City	Area
Athenree	68	Kaingaroa	61
Edgecumbe	93	Kinloch	22
Greerton	75	Lake Tarawera	66
Katikati	76	Mamaku	84
Kawerau	91	Mangakino	88
Maketu	74	Murupara	89
Matata	94	Ngongotaha	82
Mt Maunganui	72	Putaruru	86
Ohope	97	Rotoma	83
Omokoroa	77	Rotorua	81
Opotiki	96	Taupo	21
Papamoa	73	Tirau	85
Pukehina	78	Tokoroa	87
Taneatua	95	Turangi	23
Tauranga	71	West Rotoiti	69
Te Puke	79		
Waihi	60	East Waikato - Area 7	
Waihi Beach	67	Town/City	Area
Whakatane	92	Matamata	38

LOFF Quick Ref Guide – K Incident Codes Sent Via Voice

K Code	Message	
0	Not available (for appliances only)	Status
6	On pager away from appliance	
E(echo)	Unable to proceed (state reason)	
11	Support service require (state service)	Support Services
11--1	Police required (confidential)	
22	Is your appliance available for a further call?	Appliance Movement
22--2	Have you any appliances that can be released	
25	Proceed to and standby at (location)	
25--1	Appliance standing by awaiting instructions at (location)	
26	Appliance will be engaged at incident for (time)	
26--1	Appliance still engaged, no developments	
28	Appliance is to return to station	
28--1	Return other responding appliances	
31	Request permission to go off radio	Radio Procedure
32	On radio test - how do you receive	
33	Radio test received satisfactorily	
34	Repeat your message	
35	Verify address of call	
35-1	Request map reference	
36	Contact Comms Centre by phone	
38	Associate this call sign to incident (state incident address)	
39	Re-transmit your current status	
41	Fatality (indicate number with suffix)	Fire Ground Command
42	Rescue effected or hazardous substance contained	
43	All available manpower utilized	
44	Command or control point established	
45	Command responsibility change (name)	
46	Stop - False Alarm	Stop Message
46-1	Stop - False Alarm: Good Intent	
46-2	Stop - False Alarm: Accidental	
46-3	Stop - False Alarm: Defective Apparatus	
46-4	Stop - False Alarm: Malicious	
46-5	Stop - Alarm agent in attendance	
46-6	Stop - Nothing showing on indicator panel	
47	Stop message - situation as per previous informative	
48	Stop message - details to follow	
51	Trial evac to be held at (state location and time)	Trial Evacuations
52	Re Trial Evac - was a 111 call received from (state location)	
53	Evacuation was successful	

LOFF Quick Ref Guide – Okareka Contact List

Name	Rank	Drivers		Home Phone	Mobile	Email	Committee
		6571	6575				
Philip Muldoon	CRFO	Y	Y				CRFO
Dave Herries	DRFO	Y	Y				Chairman
Ray Doyle	SFF						Committee
Stu Lyall	SFF	Y	Y				Treasurer
Phil Rennie	SFF	Y	Y				Committee
Bill Fisher	FF	Y	Y				Committee
Alan Jones	FF	Y	Y				
Dave Eddy	FF						
Amber Muldoon	FF						
Lewis Shaw	FF						Secretary
Rasmus Andersen	FF						
Julian Smith	FF						
Stu Pinfeld	FF	Y	Y				
Hans Laven	FF						
Irene Ferguson	FF						
Kate Huxford	FF						
Mark Jenssen	FF						
Thomas Firth	FF						
Out of district (back over summer / intermittently)							
Kierin Oppatt	SFF	Y	Y	Overseas			Committee
Chelsea Muldoon	FF						
Jesse Oppatt	FF						
Blair Gilbert	SFF	Y	Y				Training Coordinator
Callum Gilmour	SFF	Y		Auckland			

6571 Mobile Phone

North Comm
LOFF Station

Richard Horn (DPRFO)

Andi Uhl (RFO Rotoiti)

Ray Shields

Des Chan (NZFS)

Rotorua NZFS Station
Paul Wright (PRFO)

****If you arrive on station and no driver arrives within 5 minutes, call drivers before calling North Comm to inform them of an estimated time of response.**

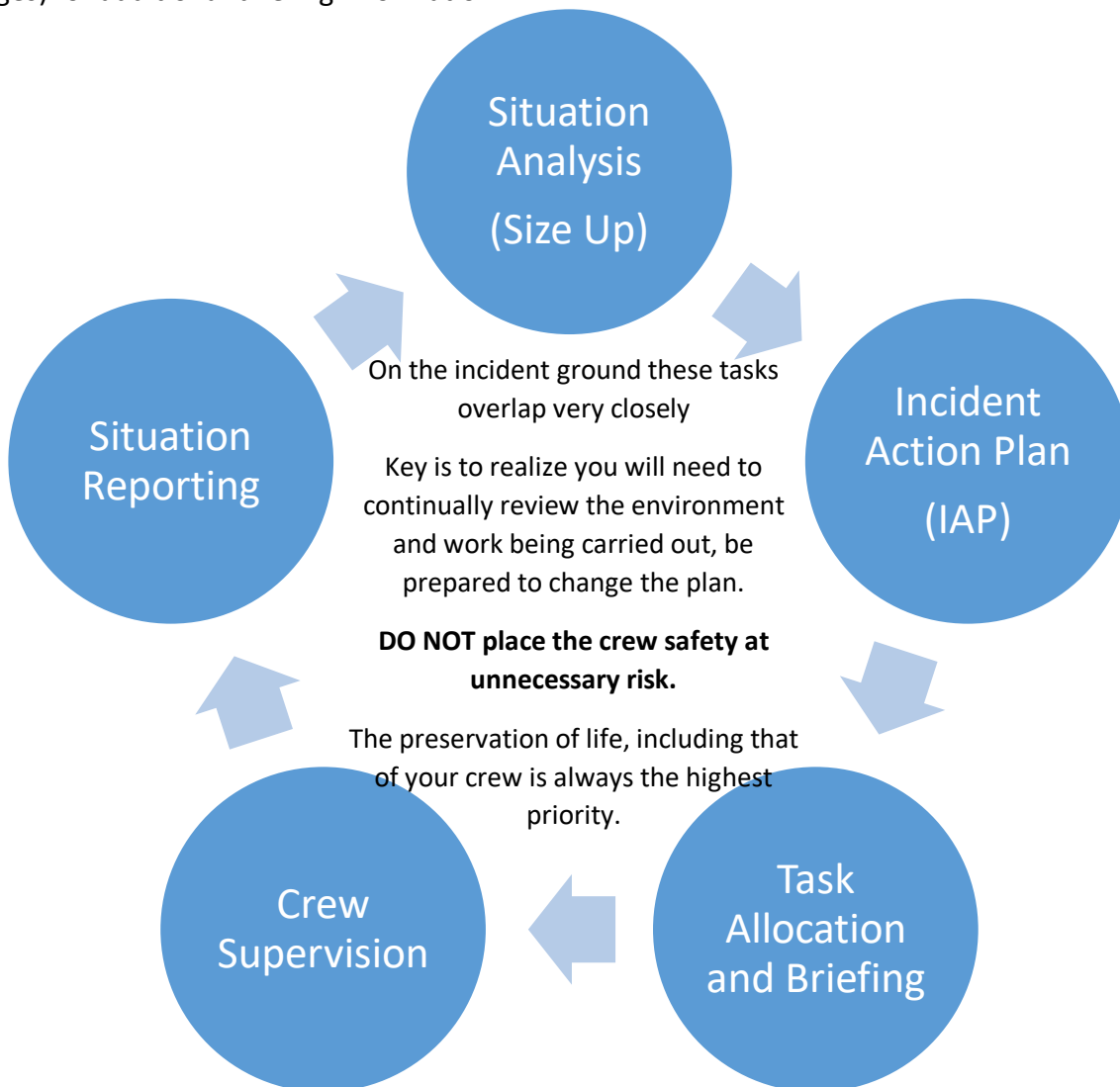
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LOFF Quick Ref Guide – Crew Supervision

Refer to the Green *Rural Fire Management Handbook* (Section 2) & the Orange *Air Operations Manual* (Yellow Pages) for additional briefing information.



LOFF Quick Ref Guide – 6571 Equipment

* (start) denotes items purchased by LOFF through fundraising.



Left Through Locker		Left Center Locker	
1	Wajax	2	45mm x 25m Non-Percolating Hose
1	Wajax Suction and Basket	5	70mm x 25m Non-Percolating Hose
On Roof Under Dam		1	First Aid Response Kit*
1	Ferno Straight Basket*	1	Pelican 9430 LED Lighting System*
1	Ferno EXL Scoop*	1	Defibrillator (AED)*
		2	Accident Signs*
		2	Patient Sheets / Blankets

Left Rear Locker		Waterway Peg Board	
1	Axe*	1	B-Type Ejector Suction
1	Pickaxe*	1	70mm Male to 41mm Male
1	70mm Ctrl.Dividing Breech	1	70mm Female to 41mm Female
1	ToolBox*	1	70mm Nozzle Gun
2	Hydroblender	1	70mm Nozzle
4	Soap Capsules	2	41mm Foam Aspiration
1	Bolt Cutters*	1	41mm Ctrl.Dividing Breech
1	Spotlight (24V)*	2	41mm Nozzles
2	Suction Wrenches		
1	Rag / Cloth		
1	Spade*		
1	Crowbar		

Left Front Lower Locker		Left Lower Rear Locker	
1	Wajax	12	Highway Cones*
1	Wajax Suction and Basket		

Left Lower Rear Back Locker	
2	Aluminum Hose Ramps*
1	Heavy Duty Tow Strop + D's 7m*
2	Wheel Chocks
1	Hazard Tape Roll

LOFF Quick Ref Guide – 6571 Equipment



Right Through Locker



1	STIHL MS391Z Chainsaw*
1	STIHL MS201T Chainsaw*
3	100mm x 2m Suction Hose
1	50mm x 2m Suction Hose Exten. for Wajax
1	100mm Suction Basket
1	Chainsaw Fuel x6L Chain Oil x2.25L* (25:1 2-Stroke Oil or 50:1 Stihl Oil)
1	2 Stroke Stihl Oil (in measure container) x1L
2	Wajax Fuel Mix x9L (25:1 2-Stroke Oil or 50:1 Stihl Oil)
1	Chainsaw Operator Kit (see detail below)
4	McCloud Rakes
3	Shovels
2	Brooms
1	Slasher

Right Locker



1	Pelican 9430 LED Lighting System*
2	Tarpaulins
2	Fire Blankets
1	Rope and Climbing Kit (see detail below)
1	Inclement Weather Pack + 6 Dust Masks (Side Pocket) (3 Raincoats + Overpants + Warm Hats)
1	Drinking Water Bag (min 6x750ml)
4	41mm x 90m Percolating Hose Packs (Green)
1	41mm x 90m Non Percolating Hose Pack (Blue)

Work Platform



1	Dry Powder 9kg Extinguisher
5	CO2 9kg Extinguisher
1	Spotlight (24V)*

Lower Wheel Locker



2	Wajax Kits
1	Kitty Litter 15L*
1	Snake dam

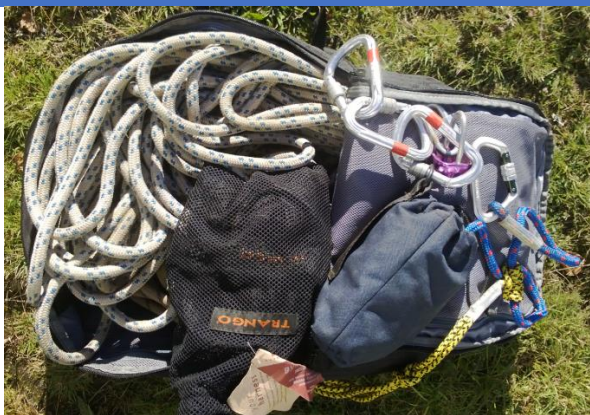
Lower Rear Locker



2	Scotty Backpacks*
1	70mm Goose Neck

LOFF Quick Ref Guide – 6571 Equipment

ROPE KIT



3	Locking Screw Gate Carabiners
1	ATC Belay / Abseil Device
1	Rescue Throw Rope Bag + Carabiner
1	Climbing Harness
2	25m 11mm Static Line Ropes

WAJAX KIT



1	41mm x 8m Non Percolating Hose
1	41mm x 2m Non Percolating Hose
2	41mm Controlled Dividing Breech
2	41mm Nozzles
1	41mm Camlock Adaptor (Rely Pumping)
1	41mm Return Spreader
1	Spanner 10mm and 12mm
1	Sparkplug Wench and Bar (in bag)
1	Sparkplug (in bag)
3	Earplug Packs (in bag)
1	Earmuffs
1	Hose Bandage

CHAINSAW OPERATOR KIT BOX

2	Helmets / Visor / Muffs Kit
2	Chainsaw Chaps
2	Chainsaw Spanners (In Belt)
4	Wedges (In Belt)
1	Stihl Sharpening Kit (5.5mm & 4mm files)
1	Wedge Hammer (In Belt)
1	Felling Belt
1	Immediate Medical Wound Kit (in Belt)

TOOL KIT



1	10 Tonne IZUZU Jack
5	Spanners 7,8,10,12,14,17,19,22,24, 27mm
1	Hammer
4	Crescents (small to large)
1	IZUZU Wheel Brace and Bar
..	6,10,15,20A Fuses and 4x 175A Mega-Fuse
1	Manhole cover removal key
7	Flathead and Philips Screwdrivers
1	Socket Set
1	Pliers
1	Adjustable Wrench
..	Scissor Snips*1 & Small Knife*1
3	Tape Roll (1*Duct, *Electrical, 1*Plumbers)
1	Solid Metal Bar (Bull Bar Eye Removal)
1	6571 Pump Panel Access Key

CABIN

6	HiVis Vests*
..	Dolphin Torches*6
5	ICOM Handheld Radios
6	Ear Plugs Packets
1	1Kg Powder Extinguisher*
1	Medical Oxygen Cylinder*
..	Sunblock + Toilet Roll
1	Electronic Surface Detection Thermometer
6	L.A.C.E.S Cards
1	Rural Fire Green Handbook
1	Rural Fire Air Operations Handbook
1	LOFF Quick Ref Guides Folder
1	Rotorua Rural and Town Road Map*
1	Rotorua City Council District Map
1	Kaingaroa Timberlands Forest Map (Waka etc)
1	Garmin Map60CSX GPS* (With NZTM Maps)
1	Medical Gloves (Box of)
..	Min 40x AAA + 1 Dolphin Battery
2	Snack Packs
1	IZUZU Operating Manual

LOFF Quick Ref Guide – 6571 First Aid – First Response Pack

Outer Front Pocket (Upper)			
1	x	Stethoscope	
1	x	Blood Glucose Meter & Test Strips	
1	x	Hand Held Pulse Oximeter	
1	x	Tympanic Thermometer & Covers	
1	x	Blood Pressure Cuff Adult	
1	x	Clothing Shears	
Outer Front Pocket (Lower)			
1	x	Water Jel Critical Burn Injury Kit	2017
Left Side Pocket			
1	x	Aeroplast Finger & Knuckle Plaster Box	
1	x	Fabric Dressing Strip	
1	x	Waterproof Plaster Box	
3	x	Emergency Blanket	
4	x	Swedish Field Dressing	
4	pairs	Latex Gloves	
1	ea.	Scissors, Tweezers, Pins & Splinter Probe	
Right Side Pocket			
3	x	Combine Dressings (20 x 20 cm)	
6	x	Sterile Gauze Squares (75mm x 75mm)	
6	x	30ml Saline (Irrigation)	4/15
1	ea.	Crepe Bandage 75, 100, 150mm	
1	ea.	2.5 & 5cm Transpore Tape	
2	x	Steristrips	
2	x	Triangular Bandages	
Inside Pocket (Upper)			
10	x	Paracetamol 500mg Tablets	4/15
12	x	Ibuprofen 200mg Tablets	7/15
5	x	Loratadine 10mg (Antihistamine) Tablets	6/15
10	x	Aspirin 300mg Tablets	5/15
1	x	Anthisan Cream 25g	1/15
1	x	Voltaren Emulgel 50g	5/15
1	x	Burn Aid 25g	2/14
Automatic External Defibrillator AED			
1	x	Physio-Control LIFEPAK 500 – Battery OK	
1	x	LIFEPAK 500 Defibrillator Pads	1/14

Inside Pocket (Middle)			
1	ea.	Oropharyngeal Airways 00, 0, 1, 2, 3, 4, 5	
1	ea.	Nasopharyngeal Airways 6.5, 7.5 & 8.5	
2	x	Lubricant	
1	x	Biohazard Bag	
Inside Pocket (Lower Left)			
1	x	Adult Acute Mask	
1	x	Oxygen Tubing	
1	x	Nasal Cannula	
Inside Pocket (Lower Right)			
1	x	Child Acute Mask	
1	x	Oxygen Tubing	
1	x	Nasal Cannula	
Base			
1	x	Laerdal Stiff Neck Collar	
1	x	Laerdal Stiff Neck Pedi-Collar	
1	x	Folder with St John Patient Report Forms	
1	x	Automatic Blood Pressure Unit	
Base - Manual Bag Ventilator Kit Adult (Red)			
1	x	Manual Ventilation Bag & Filter	
1	ea.	Adult Resus Mask Sizes 4 & 6	
1	x	Adult Reservoir Mask	
Base - Manual Bag Ventilator Kit Child (Blue)			
1	x	Manual Ventilation Bag & Filter	
1	ea.	Child Resus Masks Child Sizes 1, 2, 3	
1	x	Child Reservoir Mask	
Base - Manual Bag Ventilator Kit Infant (Yellow)			
1	x	Manual Ventilation Bag & Filter	
1	ea.	Child Resus Masks Child Sizes 00, 1, 2	
1	x	Child Reservoir Mask	
Oxygen Cylinder			
1	x	Oxygen Bottle "Size A"	3/15
1	x	Oxygen Regulator	

Comments:

<p>Comments:</p>			
Date of Check	Vehicle Number	Name	Signature of Fire Fighter
	Lake 6571		

LOFF Quick Ref Guide – 6575 Equipment

* (start) denotes items purchased by LOFF through fundraising.

Behind Drivers Seat	
1	41mm x 90m Percolating Hose Packs
2	41mm Nozzles
1	70mm Ctrl.Dividing Breech
1	70mm to 41mm Dividing Breech
0	70mm to Suction Adapter for Inline Pumping (needed)
1	100mm Suction Basket and Metal Strainer
2	Dolphin Torches
Behind Passenger Seat	
6	Road cones (collapsible)
1	First Aid Kit
2	Blankets
2	Raincoats
Center Console	
1	Sunscreen
2	Handheld ICOM RT's (rechargeable units)
1	LOFF Firefighters Quick Ref Guide
1	TomTom GPS Navigation Device
2	L.A.C.E.S Cards
1	Rural Fire Green Handbook
1	Rural Fire Air Operations Handbook
1	LOFF Quick Ref Guides Folder
1	Rotorua Rural and Town Road Map*
1	Rotorua City Council District Map
20	AA Batteries
1	Dolphin Torch Battery
Cab Miscellaneous	
1	Garage Door Remote (sun visor driver's seat)
2	Hi-vis Vests (on seats)
1	Chemical Gloves (under driver's seat)*
1	Jumper Leads (under driver's seat)
1	Fuel Card
2	Snack Packs (top dash glovebox)
4	750mm Bottled Water (top dash glovebox)
1	Toilet Roll (top dash glovebox)
1	Rope length 25m (under drivers seats)

On Roof of Tanker	
1	Shovel
1	70mm Goose Neck
1	Tanker (Camlock) to Fixed Pump 100mm Hose and Fitting (green flexible hose).
5	100mm 2.5m Suction Hose
1	Broom
1	70mm x25m Hose Non Percolating
1	45mm x25m Hose Non Percolating
Chassis + Side Box's	
3	5L Petrol Fuel Containers (Petrol)
1	Camlock to male 70mm Adapter
1	Camlock to female 70mm Adapter
2	Wheel Chocks
4	70mm x25m Hose Non Percolating
1	Standpipe and key
2	Suction Hose Spanners
1	70mm x10m Hose Non Percolating
2	70mm Camlock 4m Suction Hose (PTO)

LOFF Quick Ref Guide – Fire Ground Briefing Checklist

S	Situation
M	Mission/Objectives
E	Execution
A	Administration
C	Command and Control
C	Communications
Q	Any questions?

Fire Management: Refer to the Green *Rural Fire Management Handbook* (Section 2) & the Orange *Air Operations Manual* (Yellow Pages) for additional briefing information.

All tasks should be preceded by a safety briefing relevant to the task being undertaken. This briefing may be delivered by a dedicated safety officer or by the person supervising the assignment, ie Crew Leader. The **SMEACC** format should be used to deliver all briefings:

Consider and check off the following	✓	Consider and check off the following	✓
1. PPE - appropriate to the task <ul style="list-style-type: none"> - Firefighters - overalls, leather safety boots, helmet, ear muffs/plugs, goggles, leather gloves, (rubber safety boots and gloves for water additives use) - NO SYNTHETIC CLOTHING - Power tool use - chainsaw s/mark safety trousers/chaps, ear muffs, safety boots, helmet, harness for scrub bars - Wet Weather - wet weather coveralls, goggles and possibly rubber safety boots for those handling foam or retardant or filling aircraft with water 		5. Vehicles and Road Signs/Barriers <ul style="list-style-type: none"> - Traffic regulations are observed - Travel at a safe speed - Must be able to stop in 1/2 the visible distance - Lights are on and flashing lights used on fireline if fitted - Windows are up - Park off road facing out of fire area - Leave keys in ignition - Don't rest or lie on roads - Road signs/barriers/cones are in place 	
2. Training <ul style="list-style-type: none"> - Firefighters are trained or experienced to FRSITO unit standard 3285 'protect personal safety at vegetation fires' or are under the direct supervision of someone who is - People filling the position of Crew Leader and above are trained or experienced to FRSITO unit standard 3291 'command a vegetation fire crew' - People using power tools are trained or experienced in their safe operation and hold the appropriate unit standard - Discuss firefighter health and safety issues <ul style="list-style-type: none"> - Supervised rest breaks - Drinking regularly @ 0.5 - 1 (l/hr) 		6. Command and Control <ul style="list-style-type: none"> - All personnel have been checked into the incident and recorded on the resource form - A safety plan is developed - All fire suppression operations are to be supervised - Dedicated personnel are appointed to supervise aerial operations - All crews are allocated a defined task - Pilots are allocated a defined task, supervision and communications prior to commencing operations - Machinery operators are allocated a defined task, supervision and communications prior to commencing operations - Reporting lines of communication are identified and known by all personnel 	
3. Allocation of tasks is undertaken on physical ability, competence and training		7. Communications <ul style="list-style-type: none"> - A communications plan is developed and understood by everyone - There is communications with all crews, aircraft and heavy machinery - Maintain visual line of communication when visibility deteriorate 	
4. Equipment <ul style="list-style-type: none"> - Hand tools are in a safe working condition and are secure for transporting - Do not transport tools inside crew vehicles - Use the right tool for the job - Work 3 metres apart - Carry tools at the point of balance horizontally next to your body with the blade forward - Remove overhanging limbs that may interfere when swinging tools - Make sure equipment is secure in frames - Use fire retardant dispenser when applying fire retardant 		8. Other General Hazards <ul style="list-style-type: none"> - Power lines are isolated before any work is undertaken near them - CONFIRM POWER IS OFF - Burn-offs and patrolling firebreak in steep country 	

Consider and check off the following	✓
9. Working around aircraft	
<ul style="list-style-type: none"> - An air operations plan is developed - All Aircraft management at incidents require a dedicated controller (Aerial Operations Boss) to be appointed in the CIMS structure - Pilots have been advised of the reporting procedures - Communications are in place with all aircraft before operations commence - Pilots are allocated a defined task before commencing operations - A safety briefing is given to everyone before any flying operations commence - Remain well clear of landing/takeoff areas when aircraft are operating unless you have a task that requires you to be there - Keep the public well clear of approach and takeoff paths - Secure helmet with a chin strap - Remove any caps/hats and hold onto them - Firmly hold any other hand carried loose items - Keep crews and equipment together upwind and to one side of landing area - Make each person responsible for their own gear and equipment they carry - Plan where people will sit and the order of loading - Board on a signal from the pilot or loading supervisor - Stay in the pilots vision at all times - Only load tools or equipment with the pilots approval - Sit where instructed - Fasten seatbelt - Secure any loose objects in cabin from moving around - Uncouple the seatbelt and leave when indicated by the pilot or loading supervisor - Recouple seatbelt behind you as you exit if possible - Follow all directions or instructions from the pilot 	
-	
-	

Consider and check off the following	✓
10. Helicopters	
<ul style="list-style-type: none"> - Keep well clear of the main and tail rotors and engine exhaust at all times - Approach from the front in pilots view - Approach from the downhill side on sloping ground - Carry all tools and equipment at or below waist height - Enter and leave in a smooth steady motion - Don't make sudden movements 	
11. Fixed Wings	
<ul style="list-style-type: none"> - Do not approach until the aircraft is stationary - Only approach from the side and stay in bodily contact with either the leading or trailing edge of the wing - NEVER APPROACH FROM THE FRONT - Establish a safe working zone with the pilot and ensure all personnel are familiar with it - Stay away from the turbine exhaust when engine is running (Cresco on the front left hand side) 	
12. Working with Heavy Machinery	
<ul style="list-style-type: none"> - Operators have been advised of the reporting procedures - Communications are in place with all machinery before operations commence - Operators are allocated a defined task before commencing operations - Operators are fully briefed on any hazards and safety issues - Machines working at night are equipped with suitable flood lighting equipment - People working near machinery operations have high viz clothing - Keep away from the downhill side of an operating machine - Keep at least two tree lengths away from an operating machine - Attract the operators attention before approaching - Watch out for rapid and erratic movement of machine - Never mount or dismount a moving machine 	
13. Identify Specific Hazards for this incident	
<ul style="list-style-type: none"> - For each hazard, discuss the danger signs and identify the avoidance and mitigation measures to be followed to minimise the risk 	

Wind strength *Wind strength (as with slope) has a significant influence on the direction in which the fire will travel, the rate of fire spread (ROS), and fire intensity.*

Beaufort	Average Speed kms/hr	10	20	30	40	50	60	70	80	90	100	110	120	Observable
0 = calm	<1													Calm, smoke rises vertically
1 = light air	1-5													Direction of wind indicated by smoke drift, but not by wind vanes
2 = slight breeze	6-11													Wind felt on face; leave rustle; ordinary vane moved by wind
3 = gentle breeze	12-19													Leaves and small twigs in constant motion; wind extends light flag
4 = moderate breeze	20-28													Raises dust and loose paper; small branches moved
5 = fresh breeze	29-38													Small trees in leaf begin to sway; wavelets form on inland waters
6 = strong breeze	39-49													Large branches in motion; whistling heard in telegraph wire; umbrellas used with difficulty
7 = near gale	50-61													Whole trees in motion; inconvenience felt when walking against the wind
8 = gale	62-74													Breaks twigs off trees; generally impedes progress
9 = strong gale	75-88													Slight structural damage (TV aerials and tiles removed)
10 = storm	89-102													Trees uprooted; considerable structural damage occurs
11 = violent storm	103-117													Widespread damage
12 = hurricane	118+													
Beaufort	kms/hr	10	20	30	40	50	60	70	80	90	100	110	120	

SMEACCS-Q BRIEFING SHEET – For Use During Briefing

BRIEFING BY:

BRIEFING TO:

DATE:

TIME:

Introduce personnel conducting briefing and explain purpose of briefing	
<p>SITUATION</p> <ul style="list-style-type: none"> • Overview of Incident • Current /expected - <ul style="list-style-type: none"> ○ Weather ○ Behaviour • Life and Property at risk • Resources deployed summary 	<ol style="list-style-type: none"> 1. Location of Fire/Incident 2. Cause of Fire/Incident 3. What has been burnt/damaged 4. Factors affecting fire/incident behaviour (fuels, weather, topography) 5. Factors affecting suppression (safety, environmental, resources) 6. Brief Resources overview 7. What is likely to happen 8. Relevant resource movements
<p>MISSION</p> <ul style="list-style-type: none"> • Incident Objectives 	<ol style="list-style-type: none"> 1. What we are trying to protect? What we are prepared to lose? 2. Strategies and relevant tactics 3. Tasking details (Include Division/Sector tasks if appropriate)
<p>EXECUTION</p> <ul style="list-style-type: none"> • Create work sectors • Strategies and tactics • Constraints • Task and Resource allocation • Access to incident • Times - arrive/depart • Immediate tasks after briefing 	<ol style="list-style-type: none"> 1. Details of handover of control to incoming personnel 2. Details of work sector allocation 3. Relevant strategies and tactics 4. Resources available 5. Time frames 6. Constraints 7. Implications of not achieving objectives
<p>ADMINISTRATION</p> <ul style="list-style-type: none"> • Logistics of Operation • Key support locations/roles - • Ops points, ICC, staging area • Catering • Supply • Ground/medical support 	<ol style="list-style-type: none"> 1. ICC (incident control center) location 2. Operations/control point 3. Staging areas 4. Sectors 5. Water points 6. Recording U Card requirements 7. Time keeping (Personnel and machinery) 8. Catering/Accommodation 9. Maps/Traffic Plans 10. Support (first aid, Mechanics, Radio Techs, Fuel, Supplies)
<p>COMMAND/COMMS</p> <ul style="list-style-type: none"> • Incident Management • Structure • Communications Plan • Strategic Telephone Numbers 	<ol style="list-style-type: none"> 1. Who is performing Key 1MT roles 2. Reporting links including how often and content 3. Outline Communications plan 4. Provide copies of communication plan, sector plans and other relevant documents
<p>SAFETY</p> <ul style="list-style-type: none"> • Weather • Known/Anticipated Hazards • Watchout Situations • Safety equipment/PPE • Welfare - hydration/first aid 	<ol style="list-style-type: none"> 1. Known or anticipated hazards including Fuels, Weather, Topography 2. Equipment i.e. Bulldozers, Aerial attack, powerlines, private equipment 3. WATCHOUTS 4. Red Flag Warnings including acknowledgement requirements 5. Escape Routes 6. Welfare issues 7. Fire Ground information updates 8. Include O.H. and S, Incident Report Card info and reporting processes
<p>QUESTIONS</p>	<ol style="list-style-type: none"> 1. Recipients are invited to ask questions for clarification of briefing 2. Presenter may ask questions to clarify understandings

LOFF Quick Ref Guide – Medical Incident Response DRSABCD

Key to all first responder based first aid is DRSABCD followed by “General Care”. The below information is as a quick reference to review on route to incident of things to consider. It is no way a complete list and uses a car accident as an example but can apply for most medical incidents.

D	DANGERS	OIC MUST conduct a scene oversight > setup controls for hazards: <ul style="list-style-type: none"> Blood: Medical gloves in pocket or on hands now! take a spare set in your pocket 😊 Isolate Electricity: Request Power Company ASAP. Fire: Water or Extinguishers at hand and beside vehicle. Road Control: Park appliance for protection of scene, hi vis vests, radios for road control and OIC, don't get out until a plan is made, use bystanders to help road control, CLOSE ROAD. ByStanders/Family: Use other bystanders if necessary to help with control of crowd/family
R	RESPONSE	Conduct an initial response assessment to the conscious state of the patients AVPU <ul style="list-style-type: none"> A Alert: is the patient alert and <u>responding to you</u>, and questions. V Voice: does the patient response to voice P Painful: does the patient respond to painful stimulus U Unresponsive: patient unresponsive
S	SEND FOR HELP	<ol style="list-style-type: none"> 1. Radio FIRECOM with initial SITREP while OIC review scene. 2. As soon as R is complete, put in SITREP of patients status 3. Ask for Ambulance ETA and rely this back to OIC and first aiders.
	PRIORTISE RESOURCES	Assign patient priority, use bystanders to assist for general care patients until further resources arrive.
A	AIR WAY	Clear Airway, open airway by pushing jaw bone forward.
B	BREATHING	Look, Listen and Feel for 10 sec for breathing. >> If Breathing start General Care
C	CPR	If not breathing, Give 30 compressions (at rate of 100 beats per min) to 2 breathes
D	DEFIBRILLATOR (AED)	Attach AED while conducting CPR, follow voice prompts.
	GENERAL CARE	
	Bleeding	Direct Pressure, Elevate if possible, Pressure points on limb
	Neck Support	Position assistant to minimize movement of neck, install neck brace
	Shock	Reassurance, put on blankets, assign someone to sit with them and monitor AVPU.
	Monitor and Oxygen	Take Patient Names Monitor oxygen levels, if <95% supply oxygen Monitor Blood Pressure

BREATHING

LOFF Quick Ref Guide – LMR Fire Service RT

The fire service LMR (Land Mobile Radio) units uses VHF A Band. It is used as it is the most extensive network in NZ. 6575 and 6571 have two different versions of the Fire Service LMR as shown below. However the button layout is the same.



If Tone Call Successful
 DISPLAY STOP FLASHING AND DISPLAYS CURRENT STATUS e.g. "ON STN"

If Tone Call Unsuccessful
 FIVE BEEPS, DISPLAY STAYS FLASHING.

See K code and call out procedure for example of use.

SPKR = ON or OFF EXTERNAL SPEAKER, **R or P** = ROUTINE or PRIORITY CALL TO FIRECOM

LOFF Quick Ref Guide – ICOM Portable Handheld RT

These are incident ground radios. Do not use Duplex channels for local within crew communication. Programmed same as RDC VHF Radio in 6571

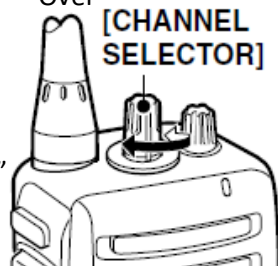
Turning on / off: Turn small knob to full volume, Use **Channel 4 or 5** for Okareka SIMPLEX

Example Calls:

"OIC, OIC this is Wajax 1, radio check (or K32)"
 ↳ "Wajax 1 this is OIC, message received (or K33)"

"6571 Pump, 6571 Pump, this is Nozzle 1, Water OFF -- Over"
 ↳ "Nozzle 1 this is 6571 Pump, Water OFF"

"OIC, OIC, this is 6571 Pump"
 ↳ "6571 Pump, this is OIC – Go Ahead"
 ↳ "Firecom advise ETA Ambulance 15mins"
 ↳ "Message Received"



Standard Words Used and Meaning

Acknowledge	Let me know you have understood message
Affirmative	Yes, or permission granted (often "YES" can be misheard so this is a better alternative)
Correction	Used where part of a message is sent or received wrongly
Go Ahead	Proceed with message
I Say Again	I am repeating the message
Message Received	Message received and understood
Negative	No, or permission denied (often "NO" can be misheard so this is a better alternative)
Out	My message has ended and I do not expect a reply
Over	My message has ended and I do expect a reply
Repeat	Repeat your message
Say Again	Repeat your message

CH	Name (TX)	Use (RX(Tone))
1	RDC 1 Duplex	Council Ops
	141.512500	138.512500 (103.5)
2	RDC 2 Duplex	Council Ops
	141.512500	138.512500 (110.9)
3	RDC 3 Duplex	Council Ops
	141.512500	138.512500 (118.8)
4	RDC Simplex	Okareka Local Use
		143.550000
5	RDC Simplex	duplicate of above
		143.550000
6	Fire 1 Simplex	Fire Ground
		143.825000
7	Fire 2 Simplex	Fire Ground
		143.787500
8	Fire 3 Simplex	Fire Ground
		140.925000
9	Fire 4 Simplex	Fire Air Operations
		140.612500
10	National Emerg. Serv. Liaison Simplex and All Regional Rescue Helicopters	
		140.987500
11	Marine CH16	Distress / Alerts
	156.800000	156.800000
12	Marine CH64	Boat to Boat
	156.225000	160.825000
13	Marine CH81 Coastguard	Rotorua Lakes Trip Intention Reports
	157.075000	161.675000
14	Marine CH86 Coastguard	Rotorua Lakes Search and Rescue
	157.325000	161.925000
15	National Emerg. Serv. Liaison Duplex	
	140.050000	143.050000
16	Rural Fire Repeater Duplex	
	140.250000	143.250000

LOFF Quick Ref Guide - Using RDC VHF Radio in 6571

VHF Radio same as ICOM units but with high transmit power (25W).
Radio Channels are setup same as ICOM units. Simplex channels are radio to radio, duplex use a repeater to forward signal on and cover large distances.

Turning on / off **LOFF RDC Call sign is "Okareka Fire 6571"**

1. Give a long press of the on/off key to turn the radio either on or off.

To Call RDC RFO

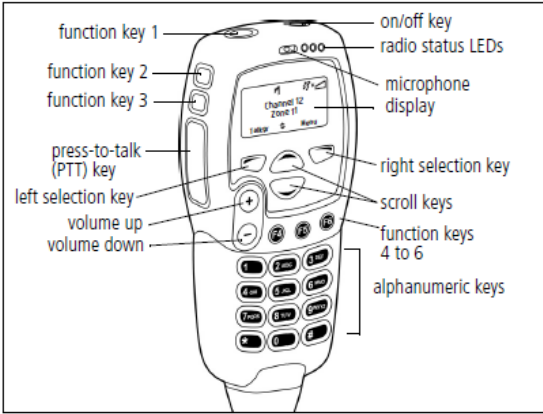
1. Use Channel 1
2. Hold down PTT key and speak clearly "RDC RFO from Okareka 6571"

Within Crew Communication on RDC Simplex (Okareka Local Crew Use)

1. **RDC VHF Radio** : Use Channel 4 or 5
2. **ICOM VHF Radio**: Use Channel 4 or 5
3. Hold down PTT key and speak clearly "XXXX from 6571 Pump"

Other Services Communication

- As per CIMS principals all communication must be passed through Firecom or Incident Control for communication with other services such as LANDSAR, USAR, CIVIL DEFENCE, POLICE, ST JOHNS etc.



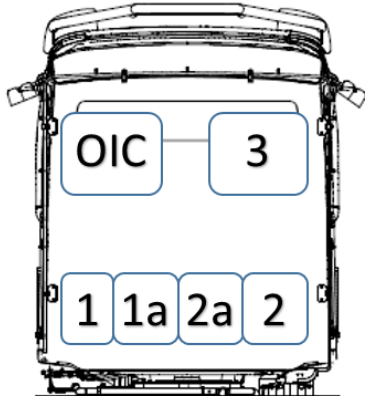
Symbol	Name	Function
	PTT key	Press and hold to transmit and release to listen
+	Volume up	Press to increase the speaker volume
-	Volume down	Press to decrease the speaker volume
⏻	On/off key	Turn the radio on or off with a long press
⏪	Left selection key	Action determined by the text above the left selection key, or deletes a dialled character from the display
⏩	Right selection key	Action determined by the text above the right selection key
⏴	Scroll keys	Scroll up and down through a list of menu options or scroll left and right in messages, or select your Quick Access menu

LOFF Quick Ref Guide – Firefighter Roles

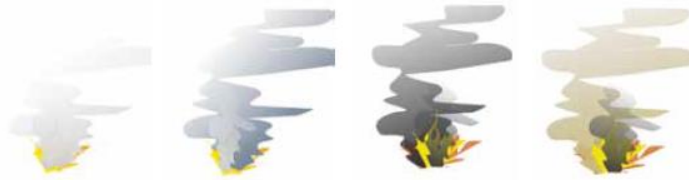
WARNING: Every incident is different and the OIC will direct you to a role suitable for your skills and capability.

However to aid speed of understanding the general principals of firefighter’s roles apply.






Seat	Name	E.g. Fire	E.g. MVA	E.g. Tree Down
OIC	Officer in Charge	OIC	OIC	OIC
1	Fire Control 1	Firefighter	Firefighter	Chainsaw
1a	Fire Control 2	Firefighter assistant	First Aid	Chainsaw assistant
2	Water Supply / Road Control 1	Establish water supply or Firefighter	Road Control Zone R1 (behind appliance)	Road Control Zone R1 (behind appliance)
2a	Water Supply / Road Control 2	Establish water supply	Road Control Zone R2 (in front of appliance)	Road Control Zone R2 (in front of appliance)
3	Driver and Pump Operator	Pump – lighting – LMR comms rely	Pump – lighting – LMR comms rely	Lighting – radio LMR comms rely



LOFF Quick Ref Guide – Vegetation Fire Fighting



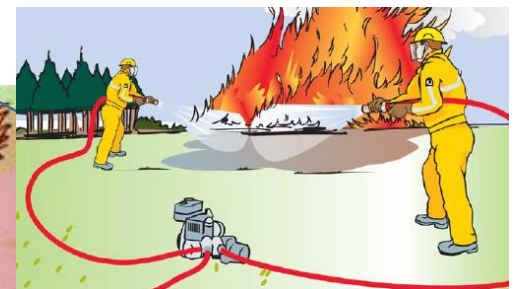
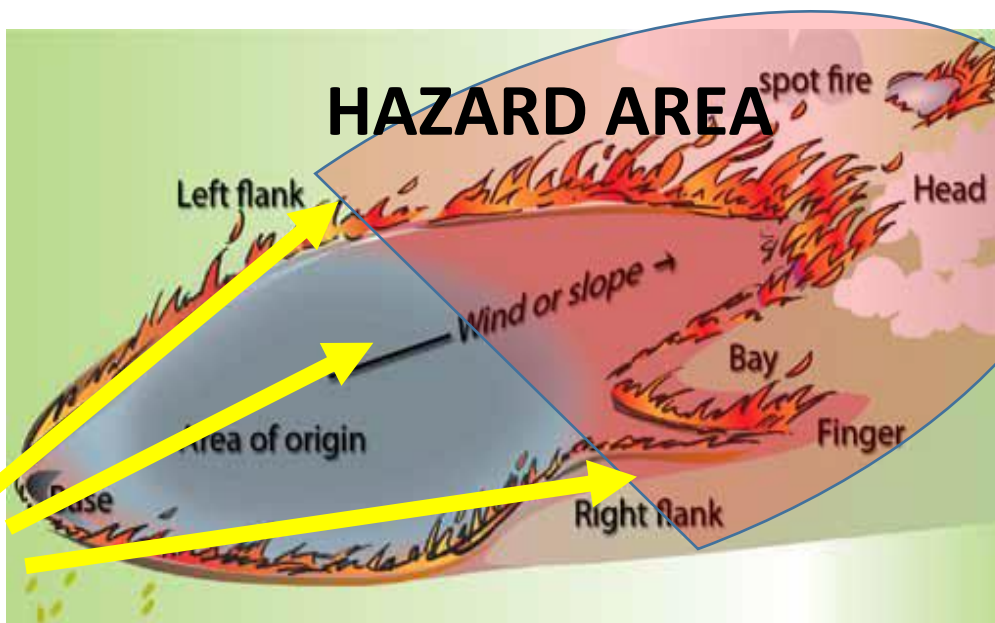
Smoke colour	Dense white	Grey	Black	Copper-bronze
Fuel moisture	Very moist fuel	Moist fuel	Dry fuel	Very dry fuel
Fire heat	LOW	MODERATE to HIGH	HIGH to VERY HIGH	EXTREME

Flame Length			AIRCRAFT NEEDED	
Less than 0.3 Metres	0.3 Metres to 1 Metre	1 Metre to 2.5 Metres	2.5 Metres to 3.5 Metres	3.5 Metres +
				
Low Danger Fire does not spread much and is easy to control	Moderate Danger Direct manual attack is possible	High Danger Water under pressure and heavy machinery for effective firefighting	Very High Danger The head should only be attacked with aircraft	Extreme Danger The only safe action is at the back and along the flanks



On ground, attack fire from base, through black / burnt area and along flanks.

Be extremely cautious when working around stump and root systems to avoid stepping into pits of hot ashes or embers!



Fight head and fingers with jet nozzle from flank / burnt area
do not move across the head of the fire or into bay areas

Do not advance to and along the fire edge without water pressure at the nozzle

READ YOUR L.A.C.E.S CARD

LOFF Quick Ref Guide – Road Control and Safety

You and your crew will do several things to protect yourselves while working on or near roads. These include:

PROTECT YOURSELF

1. Wear your uniform correctly and use high-visibility vests to make yourself more visible.
2. Always carry a torch
3. Always get out of the appliance on the side away from traffic
4. Stand to the side of road at all times during road control and give yourself a safe zone to run away from oncoming traffic.

CREATE A SAFE ZONE

1. Parking the appliance in a position that will protect the scene (min 30m between incident and appliance)
2. Using the beacons and warning lights on the appliance to make it visible and warn traffic
3. Setting up lighting to illuminate the scene
4. the OIC can decide to close the road
5. the OIC can request the Police or OpSupport to control traffic.

ROAD CONTROL PROCEDURE

1. Road1 (Road control Firefighter 1) flick up light tower (minimize time behind vehicle, but illuminate vehicle and firefighters to reduce hazard), **take 3 cones and incident sign** and walk down the road to setup a road control area 50, 70 or 100m from appliance.
2. Road2 (Road control Firefighter 2) **will take 3 cones and incident sign** and walk up the road and setup a road control area 30, 50 or 100m from incident.
3. To allow vehicles through use the following example calling procedure:

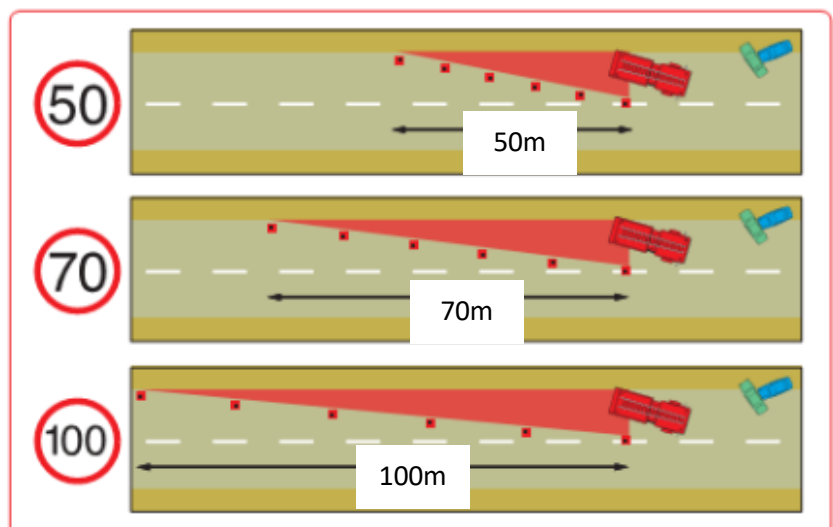
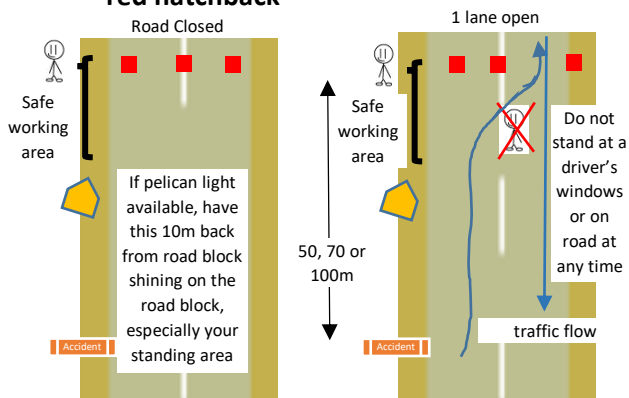
“Road2, this is Road1 (can use first names if easier)

“Road1, go ahead”

“Road2, I have 3 cars waiting, can I send these through, over”

“Road1, send them through”

“Road2, 3 cars coming through, last car red hatchback”



TIPS: If talking to a driver, ask them to wind down the passenger window and talk to them from the roadside. At night shine a torch waving it from side to side, the moving light will attract more attention than a static light shining directly at them. If pelican light available, use this about 10m up the road from the road closure and shine this back towards the cones and your position (this will help illuminate you)

TREAT THIS JOB WITH UPMOST CARE – STANDING ON THE ROAD AT NIGHT IS A SERIOUS DEADLY HAZARD

step out

measure distance by counting the number of long steps you take (one long step usually covers 1 m)



- You should extend the line of cones if there is less visibility because of bad weather or it is dark.
- Stay within the coned area to lower your chances of being hit by passing traffic.



Wherever possible, place cones to create a work space next to the appliance.

LOFF Quick Ref Guide – Hydrant Locations in Okareka



Street Index For Hydrants

Acacia Road	3↔5	Loop Road	8	Ridge Road	5
	15↔17		17↔19		17
	56↔58		32	Steep Street	12
	75		46		22
	85		49	Summit Road	1
101	61	7↔9			
Benn Road Crn Okareka Loop Road	1	70	19		
Benn Road	6↔8	82	27		
Branch Road	13↔15	Millar Road Crn Okareka Loop Road	1	39	
Calder Road	1	Millar Road	9	53	
	12		21	Tarawera Road (Blue Lake Camp)	723
		Pryce Road	60↔62	Wattle Grove	6↔8

Every year around October, complete a flush out, check condition and access to all hydrants

LOFF Quick Ref Guide - Using 6571 Rear Pump Unit

Starting and turning off

1. Turn on TANK TO PUMP (should be left ON under normal conditions during storage)
2. Hold out primer for 2-3 seconds just to allow some water to come out of overflow from primer pump
3. Switch pump ON
4. Press starter (if needed in colder conditions give a little throttle).
5. Open outlets as required. All pipe work and hoses can handle full throttle ~1500-1700 kPa, delivery should target ~700 kPa at Nozzle for 70mm and ~500 kPa at Nozzle for 41mm forestry, with friction loss factored in.
6. Turn OFF by holding OFF switch for 2 seconds

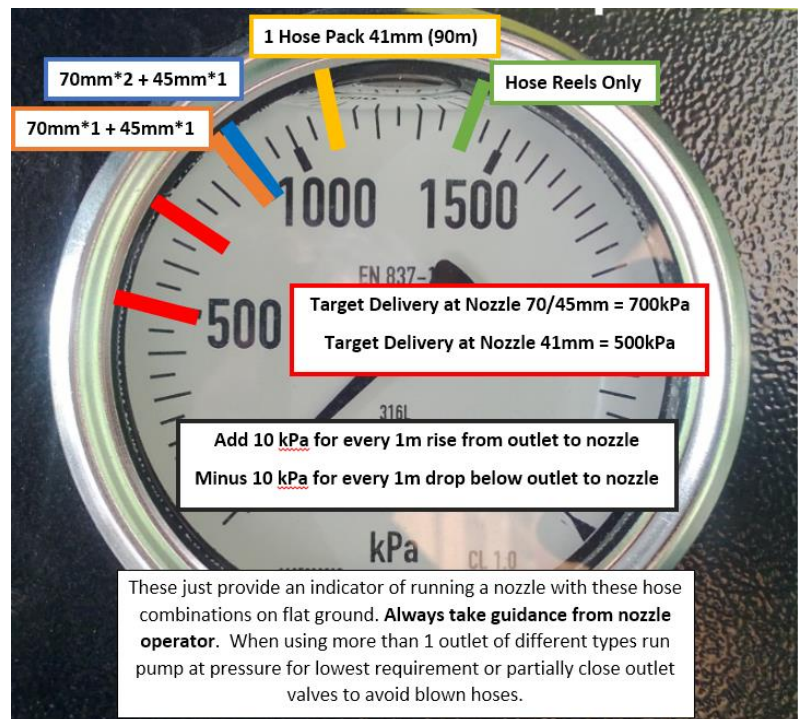


Drafting

1. Turn off TANK TO PUMP
2. Turn on PUMP to TANK (this is the only time you would use this)
3. Turn on SUCTION
4. Start pump as above
5. Hold out primer for 10-30 seconds while giving a little throttle.
6. Balance out throttle to around -60 PSI on compound pressure gauge to fill tank.

Foam

1. Spike shaft of wand through foam container cap.
2. Start pump as above
3. Select foam type A (LOFF only carry type A foam).
4. Select 0.1%, 0.5% or 1% for one or two deliveries as per foam guideline sticker beside storage containers.
5. Turn BYPASS to FOAM to switch coolant water supply to be used for induction system for foam (no need to turn coolant tap off).
6. Use any outlet including monitor to supply foam. Optimal pressure 1000-1200 kPa
7. ALWAYS FLUSH OUT SYSTEM AFTER FOAM USE
 - a. Just put foam puncher wand into a container of water
 - b. Use as above and run all outlets used including both hose reels, including Monitor (even if not used).

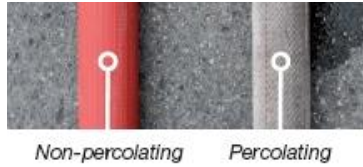


General Notes

- Pump can be started immediately prior to heading to incident from station if suitable (warms engine prior to use).
- Leave TANK to PUMP on during storage in all but freezing conditions (never likely in Okareka).
- Leave hose reels charged and ready for use (only close valve for servicing).
- Put hose reels break ¼ on when pulling out hose, this reduces chance of hose overrun and entanglement.
- Only turn coolant tap off in last resort to get suction pressure if drafting a large height above water source. Once pressure turn back on and leave on. No other time requires this to be closed.
- To practice using foam, use dye coloured water or buy “practice foam from supplier / environmental friendly foam”
- Avoid water hammer where possible especially on Monitor use (start with low throttle and throttle up only once branches and monitor on, throttle down before completely closing all outlets)
- **READ THE FULL MANUAL FOR MORE DETAIL AS THIS IS DESIGNED AS A QUICK GUIDE ONLY**

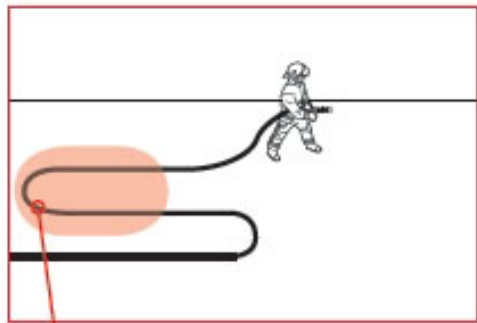
LOFF Quick Ref Guide – Hoses / Nozzles

41mm	forestry (threaded couplings)
45mm	branchman's length
70mm	main feeder / delivery hose



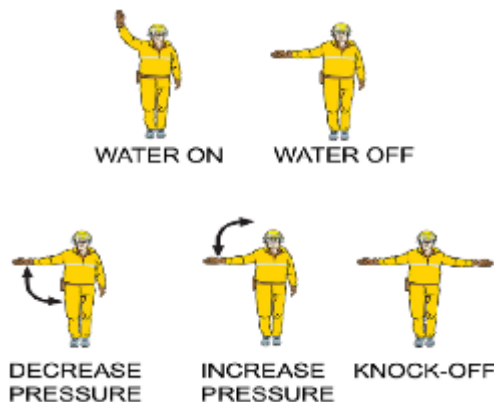
Branch Firefighters Bight

When running out a delivery, it is important to include a branch operator's bight, **whether you are using a forestry hose pack, hosereels, or main 70mm-45mm lengths**. This provides a branch operator with a lighter length of hose laid out in a bight, making it easier for them to move towards the fire.



Nozzle Use: **Straight Jet** (hit flame ups from a dist. or to penetrate into deep seated fire (watch out for blow back))
Medium Spray (general fire attack, along fire edge, remove heat from fuels) **Full Fog Spray** (heat protection)
Closed Down (practice water conservation, when not firefighting)

Signals



At night use torch to show movement e.g. WATER ON would be vertical movement of torch from shoulder to full arms reach vertical above head, repeat up and down.

Water Use Scenarios: Time Your Water Will Lasts

Pump / Outlet	LPM	Volume	Time
Medium Portable Pumps or 6575 PTO, 70mm Outlet x1	900	14,000	15m
		10,000	10m
		5,000	5m
		500	30s
Wajax / Forestry Nozzle x1	100	14,000	2h20m
		10,000	1h40m
		5000	50m
6571 Pump 70mm Outlet x1	1300	3000	3m
6571 Pump 70mm Nozzle x1	475	3000	6m
6571 Hose Reel x1	230	3000	13m
6571 Hose Reel x2	460	3000	6m
6571 Monitor	230	3000	13m

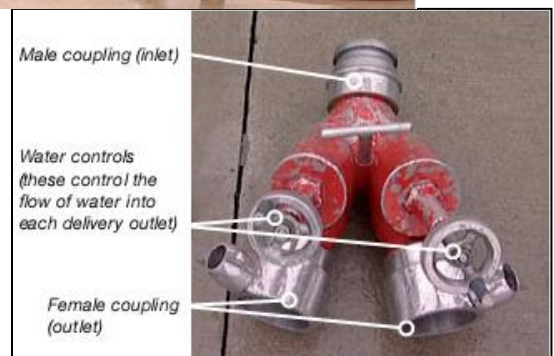
USE FOAM TO CONSERVE WATER as it will make fire attack more effective.

LOFF Quick Ref Guide – Working with Deliveries

Extending a delivery is when an additional length of hose is added to allow the branch operator to advance or change position. The branch operator will give the order to extend the delivery. The back-up firefighter is responsible for extending the delivery. The same principals apply for 41mm, 45mm, 70mm hoses.



1. No.1a will run out a length of hose in a large bight to where you want to join the old length.
2. No.1a tell the branch operator the water will be shut off.
3. No.1a order the pump operator to shut down the supply.
4. The branch operator should select maximum flow on the branch to reduce the water pressure.
5. Connect new hose and let branch know water will come back on.
6. Make sure the new length of hose has no kinks.
7. Rejoin the branch operator.



Second branch operator (No. 1) and their No. 2

Adding a dividing breeching follows the same method



Couplings

Couplings

Dividing breeching

1. No.1a places a dividing breeching alongside the set of couplings it is to be set into.
2. No.1a tell the branch operator the water will be shut off.
3. No.1a order the pump operator to shut down the supply.
4. The branch operator should select maximum flow on the branch to reduce the water pressure.
5. Connect breech and open valve to allow water to flow to branch.
6. Tell the branch operator the water is about to come back on.
7. Rejoin the branch operator.
8. Allow second team setup their branch on the second outlet of the breech.

LOFF Quick Ref Guide – Using CLASS A Foam

Class A foam is used on Class A fuels such as wood, paper, and vegetation. It can also be used on vehicle fires and structure fires.



Applying Class A foam

USE FOAM TO CONSERVE WATER as it will make fire attack more effective.

- **Direct Attack**
 - Use Class A **foam solution** and **wet foam** for direct attack using standard nozzles in the same way as water, sprayed directly onto the fuel.
 - To make **wet foam using a standard nozzle**, you may need to use the pattern control to help aerate the foam solution. Turn the pattern control very slightly towards spray to break up the water stream and help aeration.
- **Fire Break Blanketing and Covering Exposed Unburnt Vegetation**
 - To apply **dripping and dry foam as a protective blanket** in the most effective way, apply the stream indirectly by letting the stream bounce off a surface or fall onto vegetation using aspiration nozzles.
- **General Mop Up or Deep Seating Fires** (thick vegetation / duff / peat layers, stumps)
 - Apply foam solution using standard nozzles in a targeting manner at hot spots or soak down wider areas.



Foam Aspiration Nozzle

Pumping Class A Foam

- For pump instructions for 6571 and using Class A Foam, see pump quick reference sheet.

CLASS A FOAM APPLICATION GUIDE			
%	Description	Nozzle Type	Application
0.1	Foam Solution (similar to soap)	Standard Nozzles	Deep Seated Fires or Mop up
0.5	Wet Foam	Standard Nozzles	Direct Attack
0.5	Dripping Foam	Aspiration Nozzles	Fire Break Blanketing
1	Dry Foam Aspirated	Aspiration Nozzles Only	Exposure Protection

CAUTION

Foam spilled into waterways may cause environmental damage, care should be taken to prevent this

When using / handling Class A Foam appropriate PPE shall be worn (overalls, gloves, safety glasses / goggles)

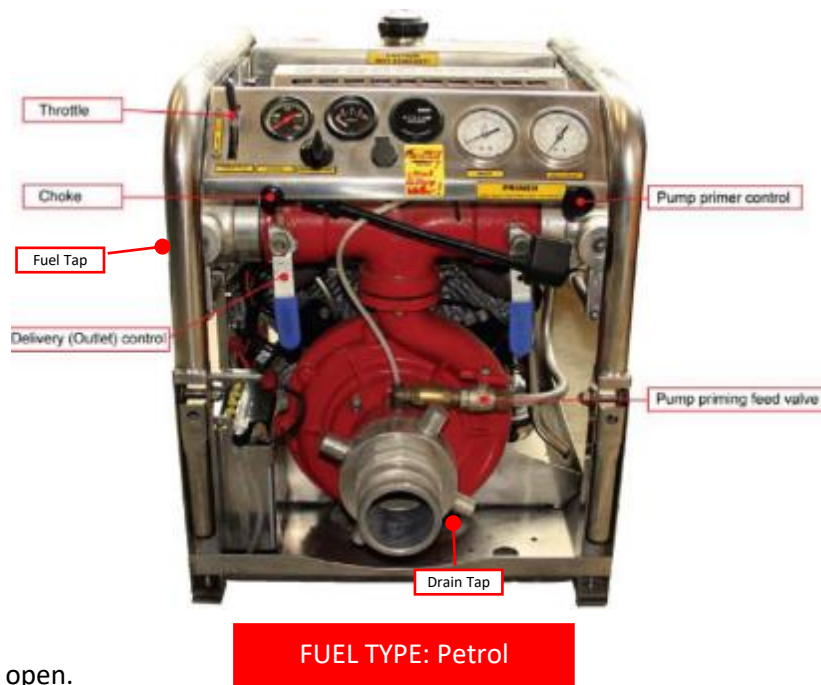


LOFF Quick Ref Guide – Medium Portable Pump



Operating Pump

1. Open fuel tap
2. **Ensure drain tap is closed (screwing out is OFF)**
3. Give 1/3 throttle, pull choke and start
4. Allow to warm up slowly returning choke.
5. If priming required (**not required if water source is tanker**):
 - a. Close all outlets
 - b. Open priming feed valve
 - c. Run up throttle, while pulling primer, until water comes out of primer outlet.
6. Open 70mm outlet, and close priming feed value if open.



Close priming feed value (tap at right angles) at all times unless using primer.

How far can you pump? Rule of thumb; flat ground = 8 x25m lengths, steep terrain = 4-6 x25m lengths (70mm)

LOFF Quick Ref Guide – 6575 Tanker PTO Pump

Discharge

1. Set tank value to “DISCHARGE” prior to engaging PTO
2. Open tank lids and tank valves
3. Engage PTO (depress clutch and press PTO button)
4. Set RPM 800-1000 with idle control knob

Do not run PTO Pump while tank value in Gravity Position

Suction

1. Set tank value to “SUCTION” prior to engaging PTO
2. Open tank lids
3. Engage PTO (depress clutch and press PTO)
4. Set RPM 800-1000 with idle control knob

Gravity Discharge or Hydrant Fill

1. Set tank value to “GRAVITY”
2. Open tank lids

LOFF Quick Ref Guide – Wajax Pump

Ensure suction clear of mud, small gravel, silt, use basket, shovels, hose pack



FUEL MIX: 25:1 Petrol / 2 Stroke Oil
Shut Down While Refueling

Starting Pump

1. Check that all necessary equipment is connected, e.g. controlled dividing breeching, bypass hose.
2. **Prime** pump.
3. Open the **air vent** on the fuel tank.
4. Turn **fuel on**.
5. Turn on the **choke**.
6. Set the **throttle to 1/3**.
7. Turn the **ignition** (cut-out switch) to on.
8. Grip the starter handle firmly and **pull until you feel resistance. Let the handle retract** (ensures the piston is at the top of the compression stroke when you pull the starter. This avoids the jerking and 'rebounding' that sometimes occurs)
9. Then **pull the handle vigorously**. Keep pulling until the motor fires.
10. When the motor fires, **slowly turn OFF choke**.

Troubleshooting

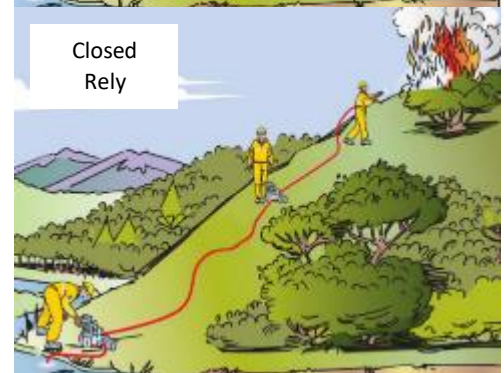
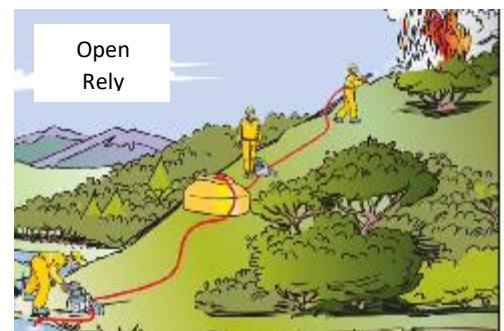
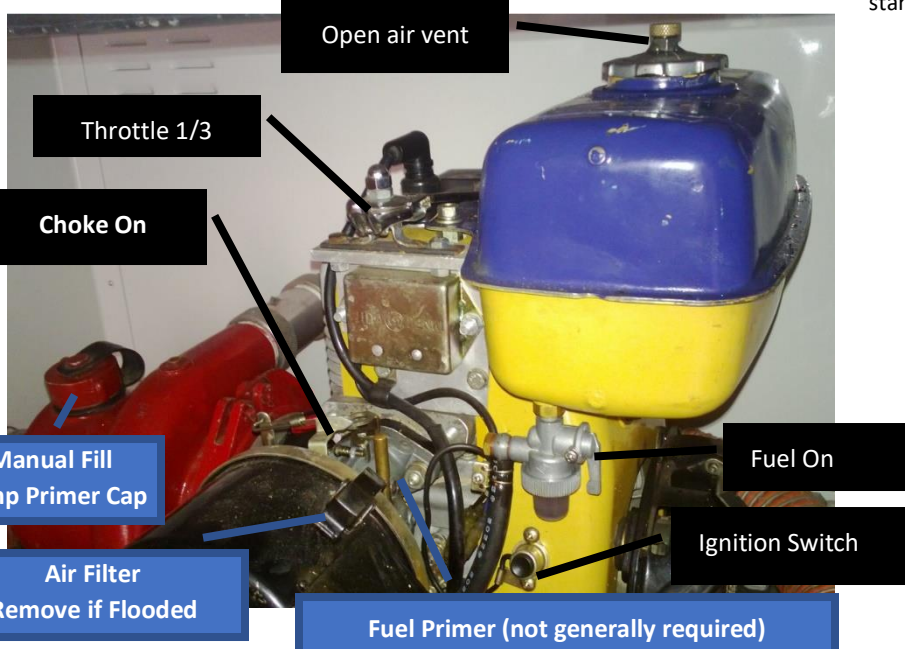
If the engine fails to start or is not running properly, check the following:

1. Ignition switch, set to ON.
2. Fuel tap, turned to ON.
3. Fuel tank vent, set to OPEN.
4. Fuel level, tank full.
5. Choke, closed for cold starting or flooding, open for hot starting.
6. Air intake, clean and unobstructed.
7. Spark plug, is it clean?
8. Is the engine flooded?

Engine Flooded

Repeated attempts to start an engine can cause excess fuel to 'flood' the engine. Different engines have different procedures for dealing with flooding. This is the procedure for a Wajax pump:

1. Remove the air filter.
2. Turn off the fuel.
3. Open the throttle fully.
4. Attempt to start engine – when engine starts, turn fuel on and replace the air filter.
5. Choke, closed for cold starting or flooding, open for hot starting.



How far can you pump? Rule of thumb; flat ground = 12-18 x30m lengths, steep terrain = 4-6 x30m lengths (41mm)

LOFF Quick Ref Guide – Using B-Type Ejector Suction

Primary design of this for removing water from confined spaces (unsafe to operate portable pump) or shallow flooded areas. Can also be used a water source. The principal is more water is returned from the ejector than put in, through venturi pressure effect.

1. FF1 (Firefighter 1) Takes B-type and 70mm hose to water supply or flooded area.
2. FF2 runs a 45mm or 70-mm hose from the appliance outlet to the B-type ejector pump.
 - Selection of 45 or 70mm input hose is based on water available to prime pump (the tank must have enough water to fill hoses all the way back to appliance). A 70 hose uses 4L/m and a 45mm 1.5L/m to fill.
 - i. 1x45mmx25m + 1x70mmx25m = Min 140L
 - ii. 2x70mmx25 = Min 200L
 - A 70mm infeed is preferred if water available to maximize venturi effect and net return water.
3. At the same time FF1 runs 70-mm hose from the B-type ejector pump to the appliance hydrant fill inlet.
4. FF2 connects the female hose coupling to the B-type ejector pump inlet and then connects the male hose coupling to the B-type ejector pump outlet.
5. To stop the B-type ejector pump from sucking up loose material, such as stones and other debris, do one of the following:
 - Put a basket strainer over it, Place it on its side
 - Put a shovel blade or hose tray under it, Tie it up off the bottom (e.g. to jetty)
6. Ensure on TANK to PUMP is ON,
7. Run pump between 800 to 1000kPa, to provide >700kPa at B-Type (taking into either 150kPa and 15kPa friction loss for each length 45 or 70mm respectively)
8. Net (Additional) Water Return is based on lift and kPa at B-Type.
 - **2 Metre Lift** - Input 4.1 litres/sec (300l/min) based on 70mm input hose @ **735 kPa at Nozzle** = 8.9 litres/sec (**530l/min**) net pick up. Enough to run maybe 1-2 hose reels, or a monitor and hose reel while maintaining water level in tank.
 - **8 Metre Lift** – Input 4.1 litres/sec (300l/min) based on 70mm input hose @ **735 kPa at Nozzle** = 7.6 litres/sec (**450l/min**) net pick up. Enough to run 1 hose reels, or a monitor + trickle fill



B-type
ejector
pump inlet

B-type
ejector
pump outlet



No. 1

No. 2



LOFF Quick Ref Guide – Making up Hose

41mm Forestry, often done using pineapple technique.



1. Start at the uphill end and drain the hose by walking with the hose over a shoulder.
2. Start at MALE end, fold the hose over about 300 mm from the end, and continue folding about six times to form a solid core (or backbone).
3. As the core is rotated, twist it a quarter turn so the hose crosses on each end.
4. Tuck the female end under one of the folds to secure.

45 and 70mm, drain as above, and roll starting from FEMALE END.

LOFF Quick Ref Guide – Mop Up After Fire Attack

Prompt and complete mop-up is just as important as fast initial attack. Sloppy mop-up and inadequate patrol can waste all the hard work and expense of containment.

Small fires: extinguish all smoldering fuels.

Large fires: extinguish the perimeter first. Then, work inwards concentrating on hot spots that could send sparks out of the fire area if the wind increases.



MOP-UP

1. establish a fire line or wet down around the fire perimeter
2. make sure that no roots cross under the fire line
3. deal with burning spars that could spread wind-blown hot embers. Keep other personnel at least two tree lengths away from dangerous spars, fell if needed
4. dig out and extinguish burning material
5. use a piping (duff probe) extension on the hose line to penetrate into deep-laying burning materials
6. use hand tools to turn over and expose burning material to spray with water
7. look for spot fires outside the main fire

PATROL

1. using all the senses to find burning embers – look, listen, smell and touch.
2. cold-trailing or using the back of the hand to feel for heat in the ground.
3. work across the area systematically as a group in a line.

Be extremely cautious when working around stump and root systems to avoid stepping into pits of hot ashes or embers!

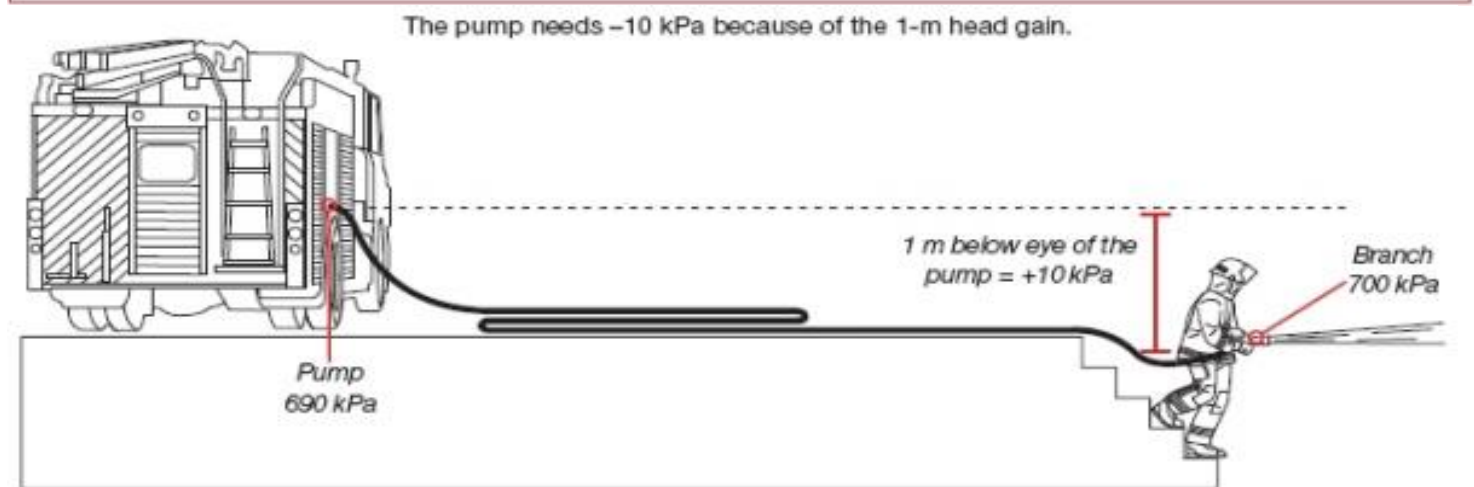
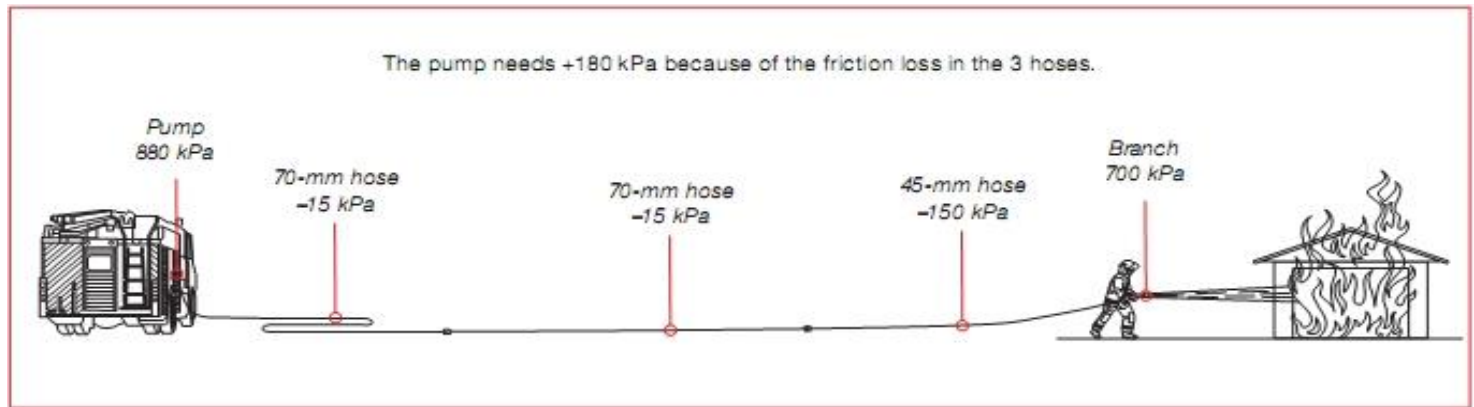
ALWAYS REFER TO YOUR L.A.C.E.S Card prior to entering the Fireground, even during mop-up and patrol

ALWAYS POST A LOOKOUT

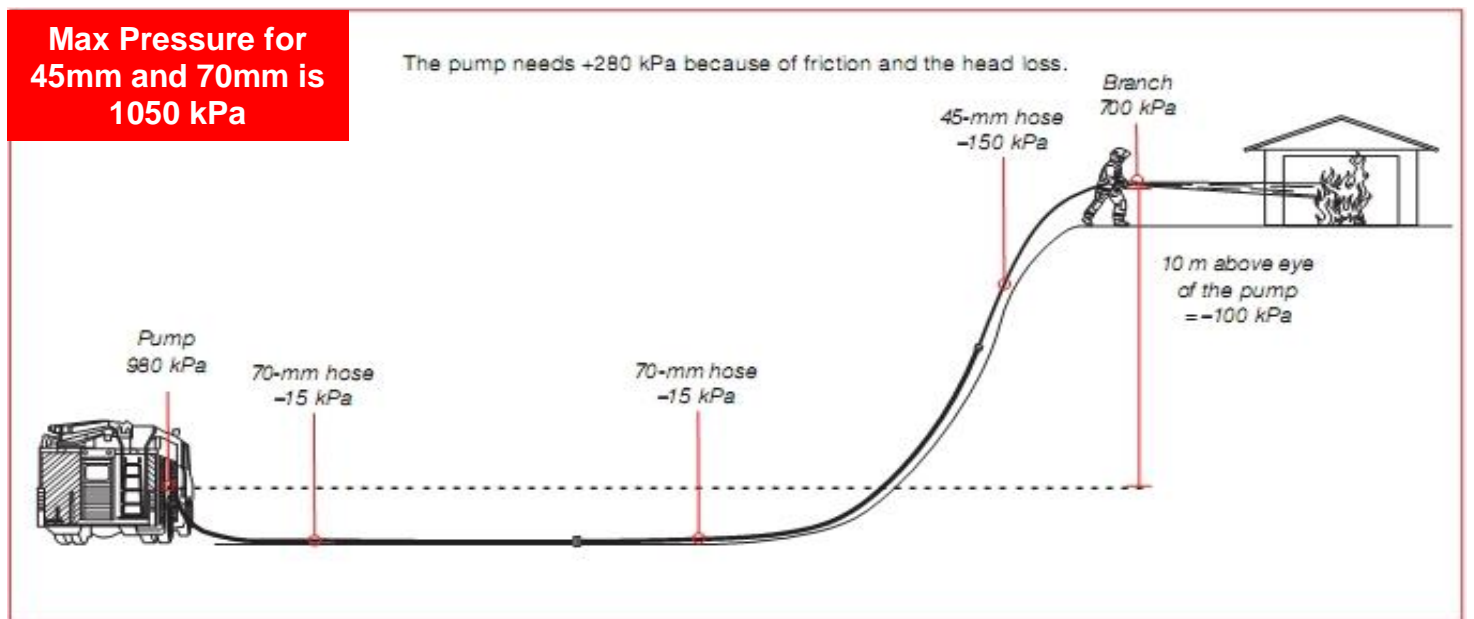
LOFF Quick Ref Guide – Branch and Pump Pressures

Branch and Pump Operating Pressures				
Hose Diameter	Hose Reel	41 mm	45 mm	70 mm
Hose Length	60 m	30 m	25 m	25 m
Friction Loss 1 Length	700 kPa	200 kPa	150 kPa	15 kPa
Head Loss / Gain 1 Meter	10 kPa	10 kPa	10 kPa	10 kPa

**Pump Pressure =
Nozzle Pressure (700)
+ Friction Pressure
+ Height Pressure**



**Max Pressure for
45mm and 70mm is
1050 kPa**



LOFF Quick Ref Guide – Using Ladder

Always use two people where possible to remove ladder from appliance and put into place.



No. 1

No. 2



<p>Ladder</p>	<ul style="list-style-type: none"> • Keep your fingers away from all moving parts. • Ensure the pawls are engaged properly. • Keep your arms straight when climbing, so that your body is well away from the ladder. • Grasp the rounds with your thumbs underneath. • Maintain a minimum of two points of contact with the ladder. • Test your footing before stepping off the ladder.
<p>PPE</p>	<ul style="list-style-type: none"> • Always wear a helmet and gloves.
<p>Positioning</p>	<ul style="list-style-type: none"> • If possible, pitch ladders to the right-hand side of a window and have three to four rounds above the window sill.
<p>Electricity</p>	<ul style="list-style-type: none"> • Beware of overhead wires, especially with metal ladders.
<p>Stability</p>	<ul style="list-style-type: none"> • Ensure stable before climbing. • Foot the ladder whenever anyone is on it (second person foot secures ladder base, while being raised).
<p>Obstacles</p>	<ul style="list-style-type: none"> • Avoid obstacles (for example, tree branches) that could cause the head of the ladder to become unstable when it is pitched against a wall. • Avoid confined spaces (for example, building overhangs), especially when under-running the ladder. • Avoid obstacles (for example, chimneys, trees, TV aerials) that will make mounting or dismounting at the head or foot of the ladder difficult.
<p>Heat transfer</p>	<ul style="list-style-type: none"> • Keep ladders away from sources of heat. Aluminum ladders can heat up and become difficult to use.

LOFF Quick Ref Guide – Hazardous Materials / HAZCHEM Codes

	Hazardous Materials		Hazardous Materials		Hazardous Materials
Class 1: Explosives	Explosion Hazard	Class 1.1: Explosives	Mass Explosion Hazard	Class 1.2: Explosives	Blast/Projection Hazard
	Hazardous Materials		Hazardous Materials		Hazardous Materials
Class 1.3: Explosives	Minor Blast Hazard	Class 1.4: Explosives	Major Fire Hazard	Class 1.5: Blasting Agent	Blasting Agent
	Hazardous Materials		Hazardous Materials		Hazardous Materials
Class 1.6: Explosives	Extremely Insensitive Explosives	Class 2.1: Flammable Gas		Class 2.2: Nonflammable Gas	
	Hazardous Materials		Hazardous Materials		Hazardous Materials
Class 2.3: Poisonous Gas		Class 3: Flammable Liquids		Class 3: Combustible	
	Hazardous Materials		Hazardous Materials		Hazardous Materials
Class 3: Fuel Oil		Class 4.1: Flammable Solids		Class 4.2: Spontaneously Combustible Solids	
	Hazardous Materials		Hazardous Materials		Hazardous Materials
Class 4.3: Dangerous when Wet		Class 5.1: Oxidizing Agent		Class 5.2: Organic Peroxide Oxidizing Agent	
	Hazardous Materials		Hazardous Materials		
Class 6.1: Poison		Class 6.2: Biohazard			
	Hazardous Materials		Hazardous Materials		Hazardous Materials
Class 7: Radioactive		Class 8: Corrosive		Class 9: Miscellaneous	

OKAREKA FIRE RESPONSIBILITY

For Hazardous Materials and HAZCHEM Materials, LOFF Response is to understand what we are dealing with and control the scene and request / inform FIRE SERVICE to control. LOFF are not trained or equipped to deal with HAZCHEM fires.

Knowing this code is about understanding our limits and controlling safety of ourselves and our community

HAZCHEM CODES

Emergency action code, commonly known as the "Hazchem Code" is a very simple and effective communication device to enable personnel to know at once what precautions or actions are required to deal with emergencies like spills, leaks or fire.

FIRE FIGHTING RESPONSE

1	Coarse Spray (Jet Spray)
2	Fine Spray (Fog Spray)
3	Foam
4	Dry Agent (Do not allow water)
●	Alcohol Resistant Foam (or number)

ACTION REQUIRED TO FIGHT FIRE

CODE	REACTIVITY	PPE	SPILL RESPONSE
P	V	Chemical Suit (LTS)	DILUTE
R			
S	V		
T		BA & FIRE KIT	
W	V	Chemical Suit (LTS)	CONTAIN
X			
Y	V	BA & FIRE KIT	
Z			
E	PUBLIC SAFETY HAZARD Evacuate, Stay Indoors all Windows and Door Closed		

EXAMPLES

3	Y	E	Use foam or dry agent, substance reacts violently/is explosive, Use BA, evacuate vicinity, contain spill.
2	X		Use fog, foam or dry agent, substance is not violent, use full LTS, contain spill.
4	R		Use dry agent only, substance is not violent, full LTS essential, dilute spill.
1	S	E	Use jets, fog, foam or dry agent; Use BA; evacuate vicinity; dilute spill.

LOFF Quick Ref Guide – Using Chainsaw

Only staff that have completed basic chainsaw safety and operation are permitted to use chainsaws.

Starting Saw

Always use COLD Start position even when chainsaw is warm (pictured). Due to infrequent use by members of a chainsaw it is advised the warm start position is not used unless experienced user.



1. Prestart checks

- All safety devices work (key to check chain brake)
- Chain is tensioned so only 1 link is clear of bar when pulled upward
- Min 3m away from refueling site
- Level and stable ground position

2. Place chainsaw firmly on ground as pictured.

3. Assume position – use cold start position

4. Chain brake on

5. Open choke (engaging throttle lock) to full choke.

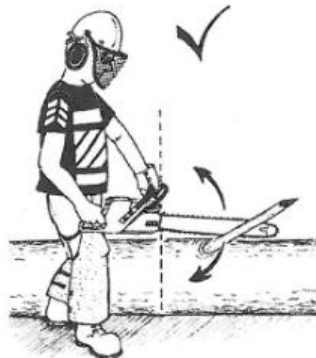
6. Start with short sharp pulls

- Pull to the first motor fire (it will likely not start at this point)
- Then drop choke to half open (one click up)
- Pull till motor fires

7. Release throttle lock, gently warm motor.

Trimming Tree Branches

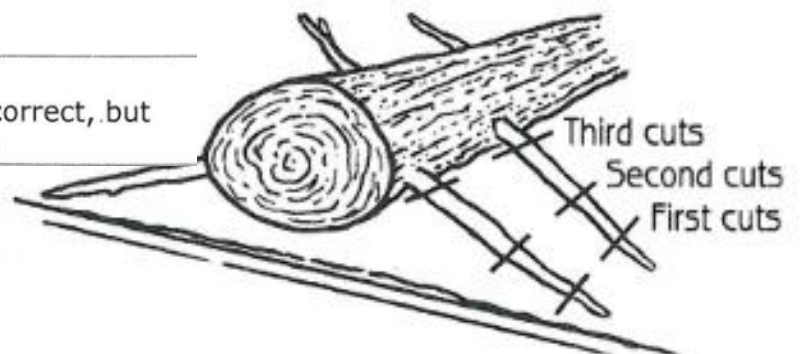
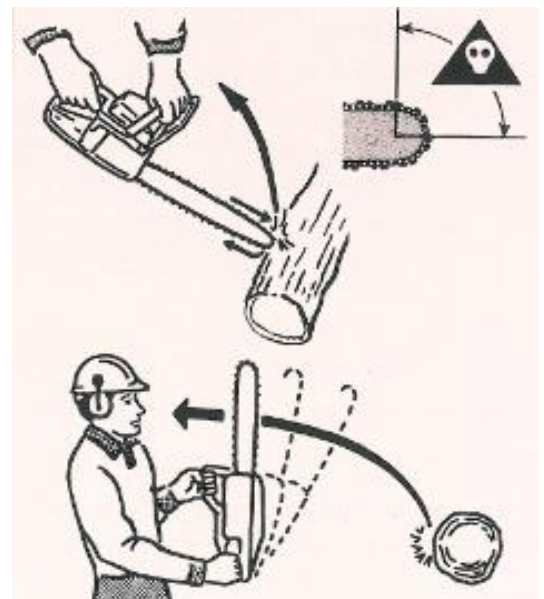
Trim tree branches while standing too left of tree stem, keeping tree between you and saw.



Best practise:

Work on left-hand side of stem with right leg back.

Left leg back – correct, but only if you must



HAZARDS

- Kickback** – do not touch upper tip of bar during cutting
- Being struck by chain** – wear gloves, engage chain brake when not cutting
- Hot muffler**
- Noise / Vibration** – muffs must be worn
- Debris and Dust** – visor must be worn

ADDITIONAL PPE

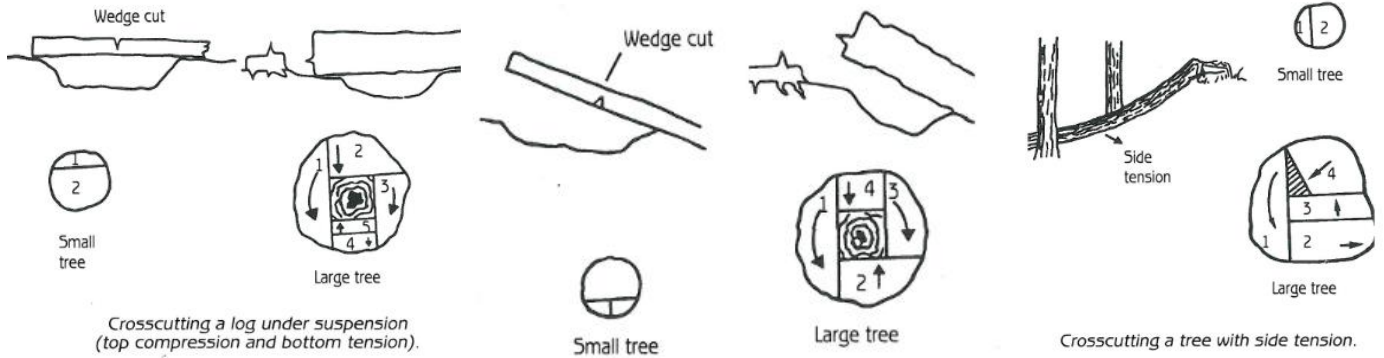
CHAINSAW HELMET
CHAINSAW CHAPS
FELLING BELT (Large Saw)
HANDHELD RADIO

Watch for Contact with Sealed Roadways
Keep a Check on Stability of Tree When Removing Branches

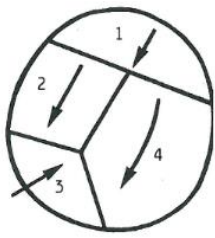
Tension and Compression Cuts

(LOFF Guide – Using Chainsaw ... Continued)

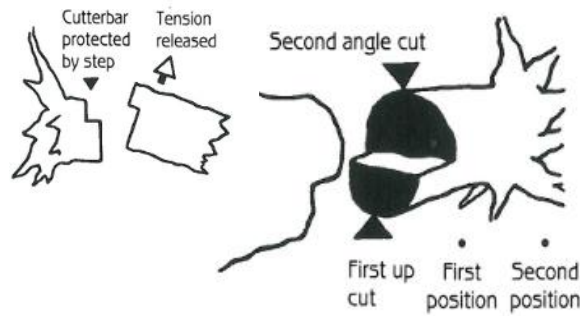
All down trees esp. in storm events will be under extreme tension or compression and must be treated with care. Take the time to assess carefully prior to cuts. **If in doubt leave for machine to clear, + trim just enough for traffic to flow.**



Large Normal Cross Cut

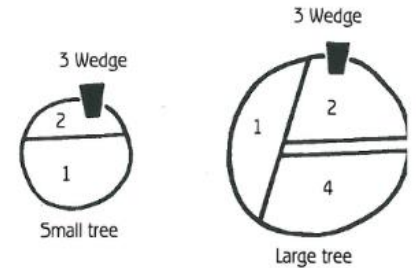


Crosscutting a large tree. Shift sides to make cut no. 3. Return to original side for cut no. 4.



Butting tree under tension

A tree on a slope can create difficulties when it is directly up-slope as its weight tends to close the saw cut.

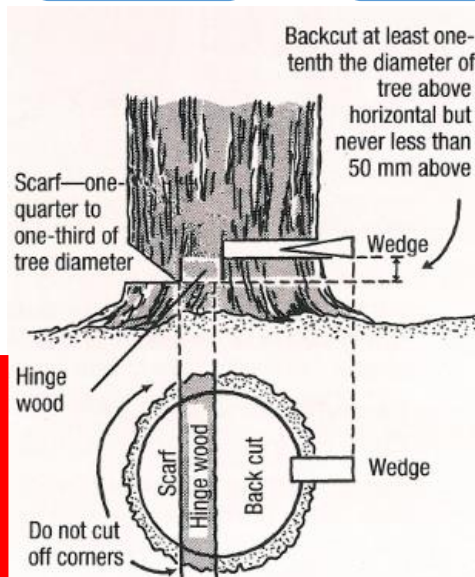
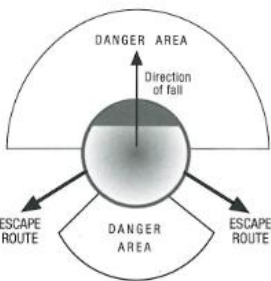


Cutting a tree when end pressure exists.

Felling

Should only be undertaken by trained and experienced tree fellers (extreme danger when trees >20cm in diameter)

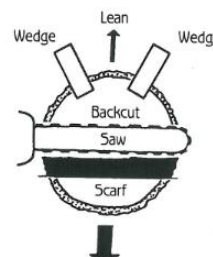
Scarf and back cuts must be used for all trees >20cm Diam. Feller always to have belt kit with min 4 wedges + hammer



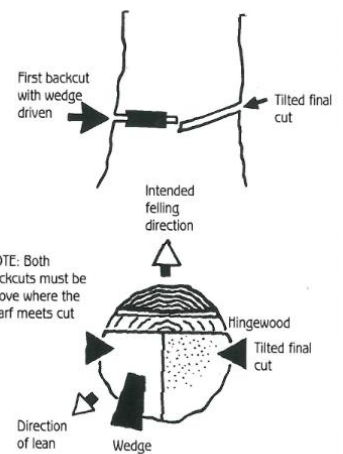
Fell Tree against Lean (Use Split Level on Smaller Trees)

The Standard Method

- Cut the scarf as normal in the desired direction of fall.
- Backcut as normal.
- As soon as there is sufficient solid wood, insert the wedge or wedges in the cut and drive in as the cut progresses.



Felling a tree against the lean.



Split level backcuts.

It is dangerous to fell trees in storm events, isolate scene and do not enter until weather conditions allow

LOFF Quick Ref Guide – Using Garmin Map60 CSX GPS

This unit can be used to record waypoints and work lines during a fire incident. Unit is set to NZTM Topo50 Co-ord.

Using the GPSMAP 60CSx Keypad

POWER Key

- Press and hold to turn the unit on or off.
- Press and release to adjust the backlighting.

IN/OUT Zoom Keys

- Press to zoom in or out on the Map Page.
- Press to scroll up or down a list on any other page.

FIND/MOB Key

- Press and release at any time to view the Find Menu.
- Press and hold for MOB*

MARK Key

- Press and release at any time to mark your current location.

QUIT Key

- Press and release to cancel data entry or exit a page.

ROCKER Key

- Press up, down, left, or right to highlight options and to enter data, or move the map panning arrow.

PAGE/COMPASS Key

- Press and release to cycle through the main pages.
- Press and hold to turn the compass on or off

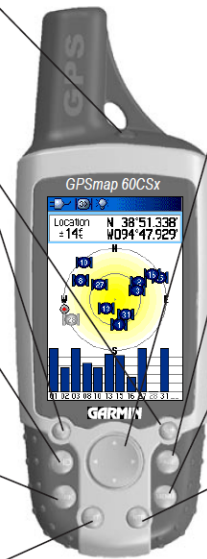
MENU Key

- Press and release to view page options.
- Press twice to view the Main Menu.

ENTER Key

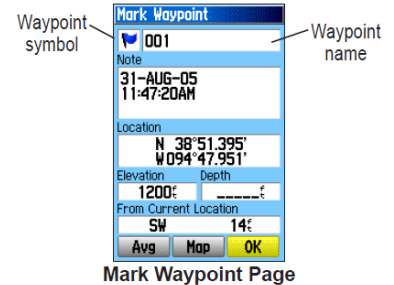
- Press and release to enter highlighted options, data or confirm on-screen messages.

* Man Overboard (MOB) feature stores a waypoint and then navigates back to it.



To mark your current location:

- Press and hold the MARK key until the Mark Waypoint Page appears. A default three-digit name and symbol are assigned to the new waypoint.

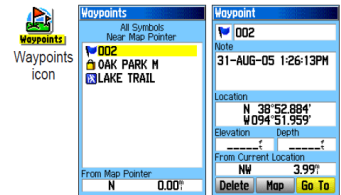


Finding a Waypoint

The Waypoints Page contains a list of all saved waypoints. Waypoints are stored in alphanumeric order and are also identified by a symbol assigned from a list of symbol types.

To find a waypoint:

- Press FIND to open the Find Menu.
- Highlight the Waypoints icon, and press ENTER to open the Waypoints Page.
- Use the ROCKER to select a waypoint, and press ENTER. The Waypoint Page opens.

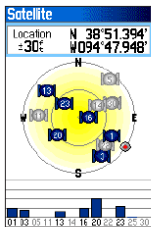
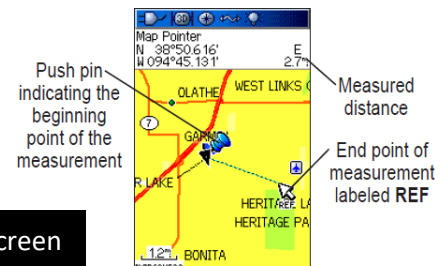


Measuring Distance

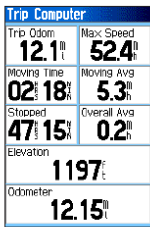
You can measure the distance between two map items.

To measure distance between two points:

- Press MENU to open the Map Page Options Menu.
- Highlight Measure Distance, and press ENTER. An on-screen arrow appears on the map display at your current location with REF below it.
- Move the arrow to the reference point (the starting point you want to measure from), and press ENTER. A push pin icon marks the starting point on the map.
- Move the arrow to the point you want to measure to. The distance between the two points is shown in the upper-right corner of the Map Page.
- Press QUIT to cancel.



Satellite Page Options



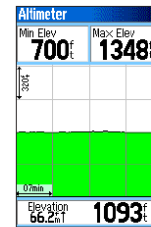
Trip Computer Page Options



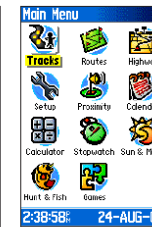
Map Page Options



Compass Page Options



Altimeter Page Options

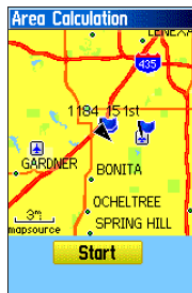


Main Menu

Measuring Area

To calculate the area of a track:

- With the Track Log Page open and the Track Log on, press MENU to open the Options Menu.
- Highlight Area Calculation, and press ENTER to open the Area Calculation Page.
- Press ENTER to start the area calculation. As you begin to move and define the area's boundaries, a Stop button appears at the bottom of the page.
- When finished defining the area, press ENTER to open the Calculated Area Page with a Save button.



Start calculation



Save calculated track

Report Location Using Satellite Page, Record NZTM Northing and Easting at Top of Screen

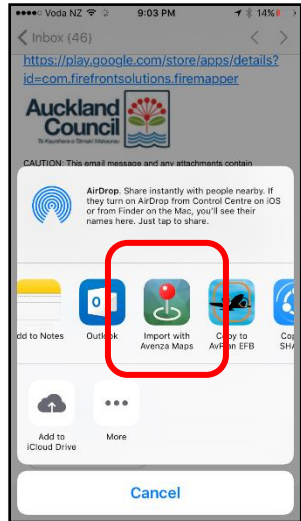
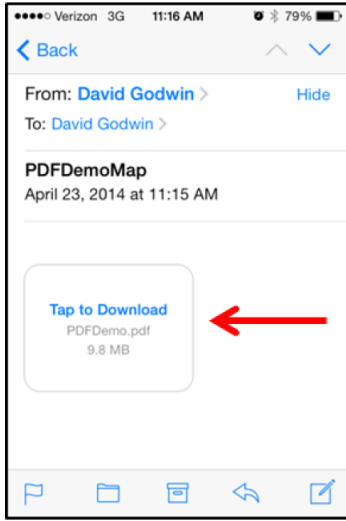
NZTM GPS co-ordinates are 7 figures long, digits 3 to 5 = Topo50 Map Co-ordinates

LOFF Station = E1893198 N5769351 or BE37 (Map) 931693

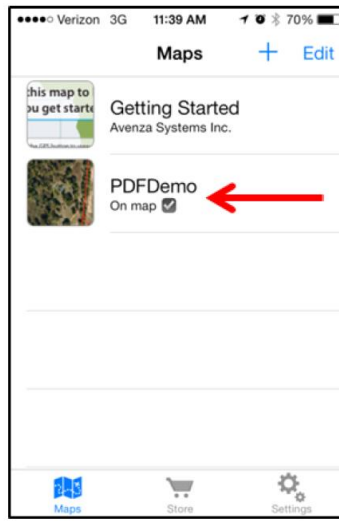
LOFF Quick Ref Guide – Using Avenza Maps for Devices – Pg 1

Download Avenza Maps (PDF Maps) from the iOS, Android or Windows Phone Store (it is also available for Windows 10).

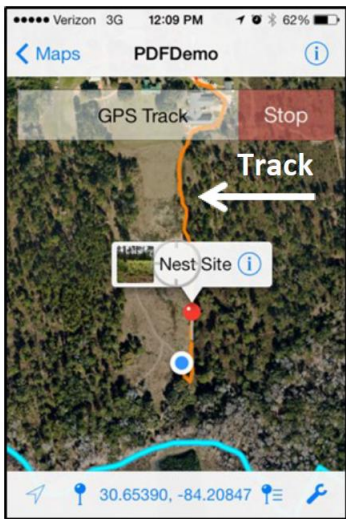
Open a Map (PDF or GeoTIFF)



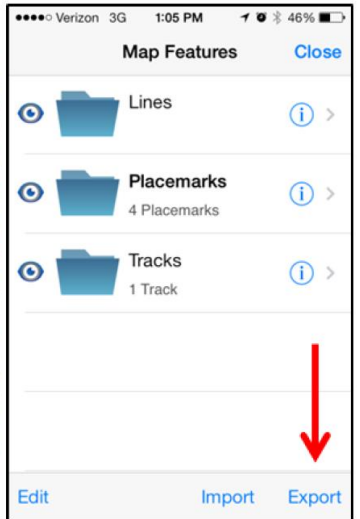
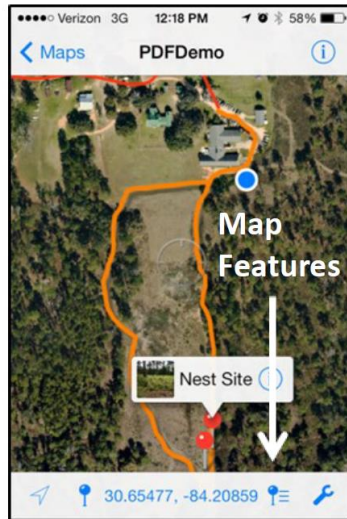
Open Map and Turn on Current Location using GPS Icon



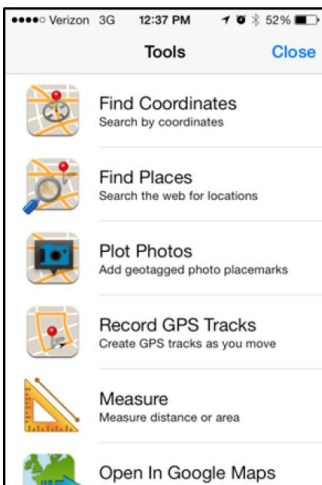
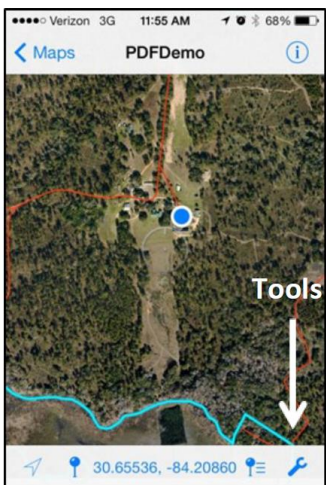
Create Tracks and Placemarks (touch (i) to add and name)



To review / export saved map features (tracks, placemarks)



Use Tools to Measure Area, Find Co-ordinates, Plot Photos Take On SmartPhone on Map, Record GPS Tracks

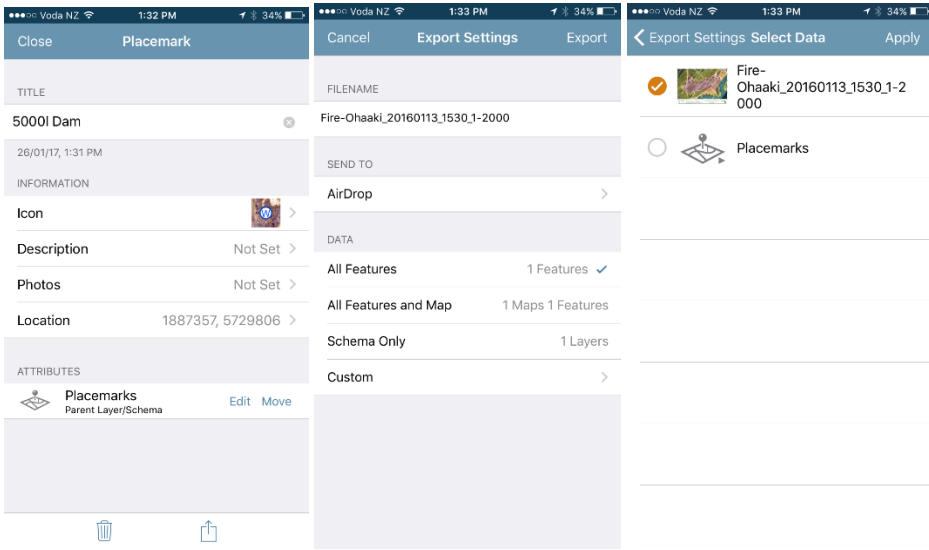


Communication Between Devices:

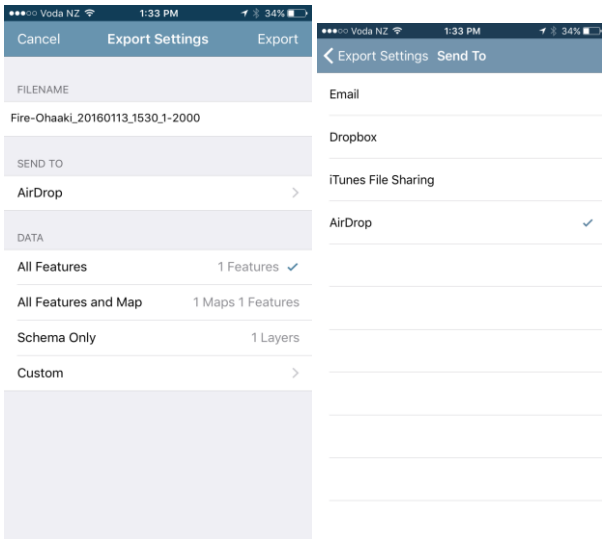
- Use the incident email address
- Use AirDrop between Apple Devices
- Use ShareIt App between Android and iPhone Devices
- Scan a QR Code on a Paper Map

LOFF Quick Ref Guide – Using Avenza Maps for Devices – Pg 2

Editing a Placemark Icon and Details Share a Map via AirDrop



Share a Map and Placemarks using Apple AirDrop (between Apple Device Only)



Share a Map and Placemarks between Android Phones

LOFF Quick Ref Guide – 6571 iPad and SmartPhone

DoXXXX

iPad Access Code [REDACTED]

iPad RLC Apple Account (Administration Account): [REDACTED]

iPad Default Email Account: [REDACTED]

iPad Account Management Administration: Glenda Backhouse @ Rotorua Lakes Council

ESRI ArcMap Explorer, Collector, Navigator: Fire Permit Data Access (Map Name: Fire Permits)

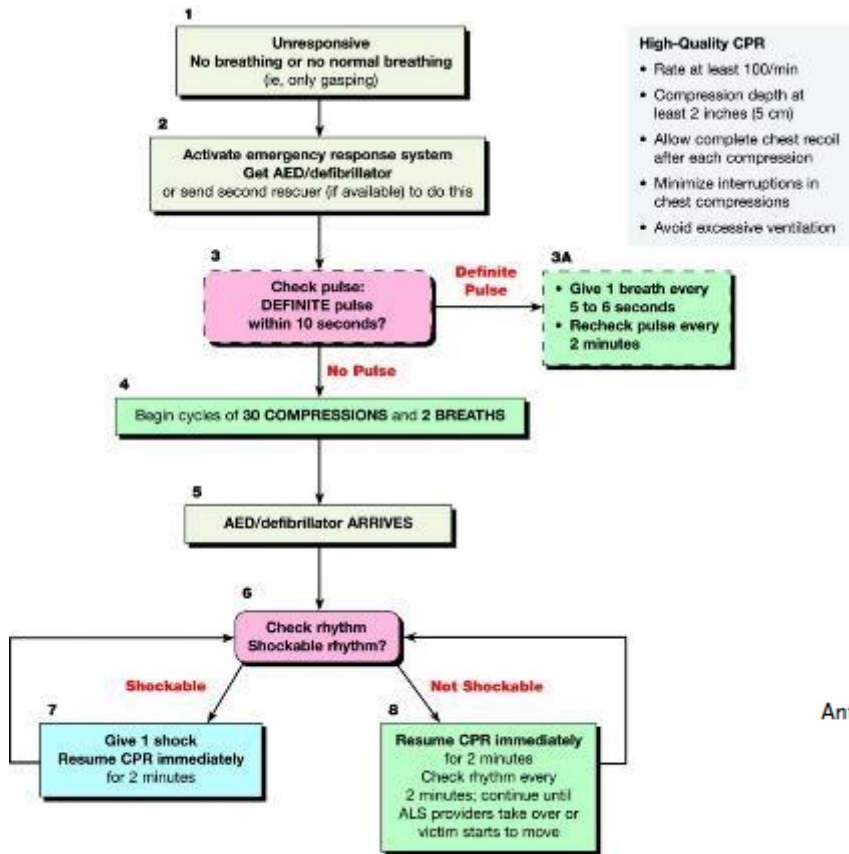
ESRI Account: [REDACTED] ESRI Password: [REDACTED]

Connected Apple Account: [REDACTED] Pwd: [REDACTED]

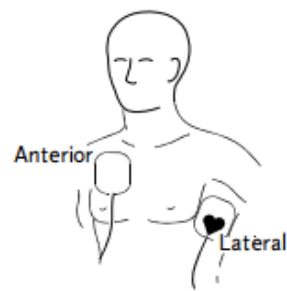
ESRI Account Management Administration: Ralph Price [REDACTED]

LOFF Quick Ref Guide – Using Defibrillator / AED

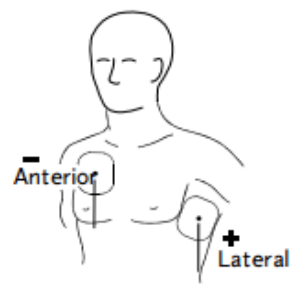
Defibrillation is a recognized means of terminating certain potentially fatal arrhythmias. This direct current defibrillator applies a brief, high-energy pulse of electricity to the heart muscle. Depending on the situation, other supportive measures also include CPR, oxygen, and drug therapy from an ambulance.



Only use when in cardiopulmonary arrest. They must be unconscious, not breathing normally, and showing no signs of circulation (E.g. no pulse, no coughing, no movement)



QUIK-COMBO Electrodes



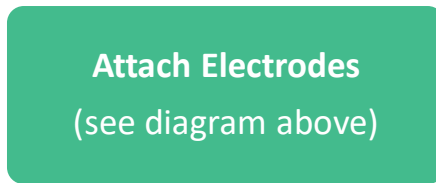
FAST-PATCH Electrodes

Note: The boxes bordered with dashed lines are performed by healthcare providers and not by lay rescuers

© 2010 American Heart Association

Figure 3-1 Anterior-lateral position

STEPS FOR USE OF DEFIBRILLATOR / AED



Analyze process can take 9 to 13 seconds so be prepared to wait.

When prompted to press **SHOCK**, if you do not press it within 15 seconds, the AED disarms the **SHOCK** button, and the **CHARGE REMOVED** message appears.

The AED will provide voice prompts and screen messages suitable for patient. Listen carefully and if in doubt press **ANALYSE** again to recheck patient.

Shock Hazard

This defibrillator delivers up to 360 joules of electrical energy. When discharging the defibrillator, do not touch the electrodes, patient, or any conductive material.

LOFF Quick Ref Guide – Bag Mask

Bag-mask ventilation is an acceptable method of providing ventilation and oxygenation during CPR. **It should only be used when more than 1 person is available. Otherwise use mouth to mouth.** When used at least one person should be dedicated to its use while the other person performs compressions.

Positioning

- Place towels under the patient's head to position the ear level with the notch on the sternum.
- Perform the head-tilt chin-lift manoeuvre or the jaw thrust. In patients with suspected cervical spine injury, do not perform a head-tilt; rather, only perform a chin-lift manoeuvre.

One Handed Operation

1. Create a C-shape with the thumb and index finger over the top of the mask and apply gentle downward pressure.
2. Hook the remaining fingers around the mandible and lift it upward toward the mask, creating the E.



Two Handed Operation

1. Create two opposing semicircles with the thumb and index finger of each hand to form a ring around the mask connector, and hold the mask on the patient's face. Then, lift up on the jaw with the remaining digits.

Ventilate the Patient

- Provide a volume of 6-7 mL/kg per breath (approximately 500 mL for an average adult).
- For a patient with a perfusing rhythm, ventilate at a rate of 10-12 breaths per minute.
- During cardiopulmonary resuscitation (CPR), give 2 breaths after each series of 30 chest compressions until an advanced airway is placed. Then ventilate at a rate of 8-10 breaths per minute. Give each breath over 1 second.

Assess the adequacy of ventilation.

- Observe for chest rise, improving colour and oxygen saturation.
- Monitor for air leak.
- Be aware of increasing gastric distention.



LOFF Quick Ref Guide – Principles of Triage

The aims of triage, wherever it is done, are not only to deliver the right patient to the right place at the right time so that they receive the optimum treatment but also to ‘do the most for the most’, accepting that valuable medical resources are directed to those with the greatest clinical need.

The first triage decision will be made at the scene, likely where the patient is found. This will be done using a primary triage process as outlined in Figure 5. This is a process performed by the designated triage officer at the scene. The Triage Officer should be the highest clinically qualified officer available.

The process is rapid, taking seconds to complete. Triage enables the Triage Officer to prioritize patient treatment and transport. Patients will be labelled and, where appropriate, grouped according to their status.

The principles of triage shall be used whenever:

“The number of casualties exceeds the number of skilled rescuers available”.

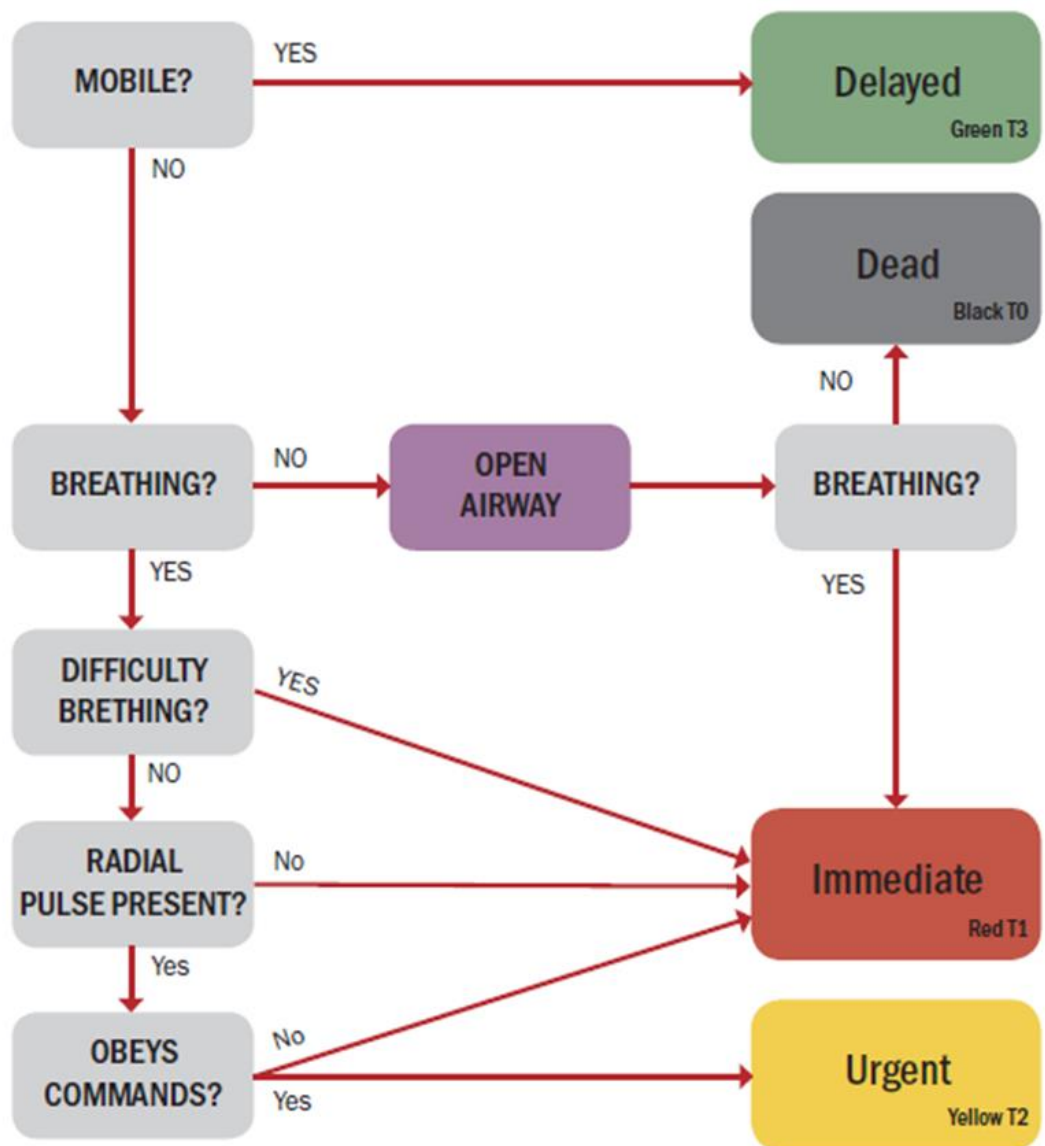


Figure 4 notes a casualty category of ‘Mobile’. This is defined as a person with minor injuries who is able to walk or be moved without assistance from medical personnel to a designated ‘green’ triage area, where they will be reassessed.

It is the responsibility of the Triage Officer to ensure that the appropriate label or tag (black, red, yellow or green) is attached to the patient and that patients are directed to the appropriate location.

LOFF Quick Ref Guide – METHANE Major Incident Report

Standardised communications are required around any notification or status change of major incidents. These communications need to be readily understood and meet the needs of all agencies. A METHANE report is the internationally recognised tool for this and is utilised in this plan.

When communicating, all sections are used in the report. Where information is unknown, that section is stated as being unknown or that an estimate is being provided. ‘Number of patients unknown, but is estimated to be approximately 50’. ‘Hazard identification has not yet been completed, but heavy rain looks imminent’. If any section of the report is missing, the receiver requests the information from the originator.

The recognised status changes affected are:

- Standby notification (warning of a Possible, unconfirmed Major Incident)
- Declaration (Confirmed Major Incident)
- Update to Major Incident Level (A level change)
- Stand-down (Notification that an Agency can stand down or that the ‘whole of incident’ stand-down is given).

Standby: Where the incoming information into Firecom and use of the Major Incident Risk Matrix suggests the possibility of an unconfirmed major incident, a METHANE report is generated to the responding crews, managers and other agencies (including health) in accordance with standard operating procedures.

The First Crew arriving at the incident is required to confirm or stand down the standby after an initial assessment. That confirmation may also be provided by Ambulance Communications on receipt of information from another agency that is in attendance.

If a major incident is confirmed, it is communicated using the METHANE Report and clearly stating at the beginning:

Declaration: Major Incident Declarations are communicated using a METHANE report. The declaration starts the report with words clearly stating, for Example: ‘Major Incident Declared’.

Updates and Level changes: These are communicated using a METHANE report providing the up-to-date information: For example: “Upgrade to Level 3 Major Incident Declared”.

Stand-down: It is important that these are also communicated using a METHANE report to provide a clear understanding of the situation and prevent confusion. For instance, it would cause great confusion to a receiving hospital to receive a stand-down message while patients were still in transit. In-transit patients are covered in the numbers section. Examples of an inclusion in a stand-down METHANE report from the scene: “All patients have departed the scene for Hospital” Or “35 patients have departed the scene for Hospital. 25 non-injured have been moved by bus to the Rembrandt Motel by Police”.

How to use the Response Matrix

1. Estimate the total likely ‘Time’ or duration of the incident for ambulance (travel, triage, treatment and transport) and plot on the Response Matrix.
2. Determine the ‘Type of Incident’ from Figure 2 and plot it on the Response Matrix.
3. Determine the Severity of the Incident by comparing the time estimate to the Type of Incident, and select the greater (i.e. further to the right of the matrix).
4. Determine the likely number of patients and plot against the Severity of the Incident on the Response Matrix.
5. An Initial ‘Possible Major Incident’ notification will be sent (Level 1) to inform those who will be directly impacted by this incident.

Type of Incident	Description				
Complex	Incident that is not routine or it is an infrequently used procedure (e.g. CBR, Airport emergency, major Civil Defence Emergency Management (CDEM) event (tsunami))				
Controlled	Incident that has a lead agency (e.g. Police, Fire, Health, CDEM etc) or comprehensive CIMS structure in place or a large number of personnel are deployed				
Restricted	Where access to patients is difficult owing to hazardous, environmental or security factors				
Open	Where there are no issues regarding the access to or egress from patients				
Simple	Incident where normal or routine Ambulance procedures apply				
>21	Level 2	Level 2	Level 2	Level 3	Level 3
11–20	Level 2	Level 2	Level 2	Level 3	Level 3
6–10	Level 1	Level 1	Level 2	Level 2	Level 2
3–5	Normal Operations	Level 1	Level 1	Level 2	Level 2
0–2	Normal Operations	Normal Operations	Level 1	Level 1	Level 2
Numbers of Patients	Simple/ Open	Simple/ Restricted	Simple/ Restricted/ Controlled	Complex/ Controlled	
Time	<1hr	1–2hr	2–4hr	4–8hr	>8hr

M

Major incident status. Standby / declared / confirmed / stand-down
It is important that each phase or change is communicated immediately through the command and communication chain

E

Exact location of the incident
GPS / grid references and / or known landmarks can be helpful to other parties and agencies

T

Type of incident involved

H

Hazards that have been identified or the potential for them

A

Access and egress pathway to the scene is advised
This should also apply for a Safe Forward Point, Staging Area, or Assembly Area.

N

Number and approximate status of patients

E

Emergency Services already present, and those needed
Extra Ambulance resources needed

LOFF Quick Ref Guide – Reversing Appliances

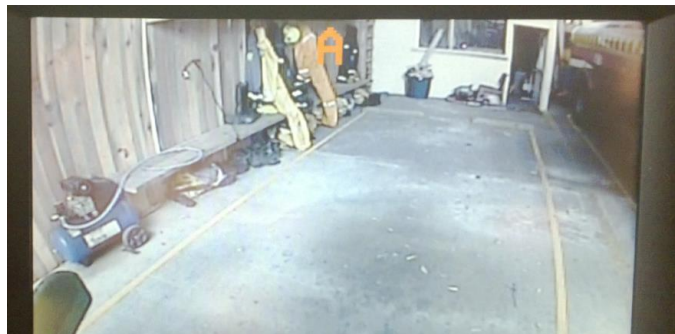
Whether it is at the station or at an incident always take care when reversing appliances.

USE HAZARD LIGHTS / BEACONS WHEN REVERSING

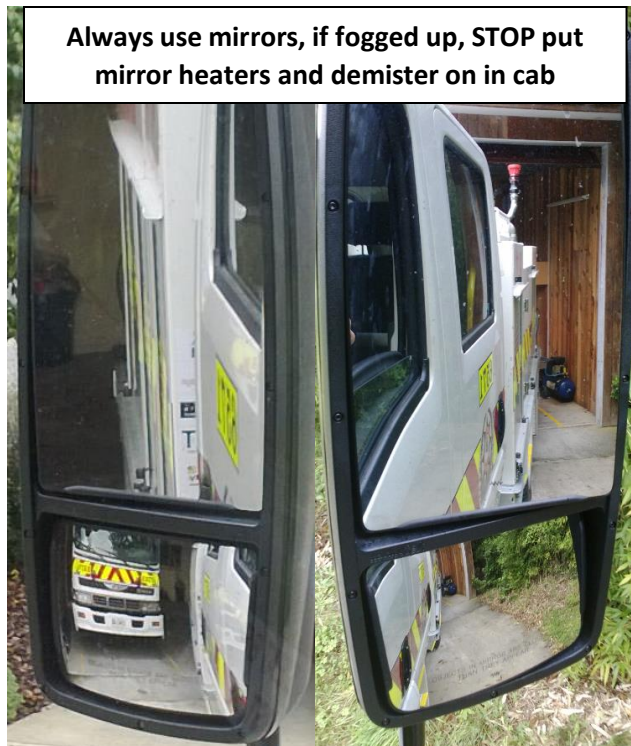
this ensures vehicles and bystanders are aware especially during winter outside the station on loop road.

ALWAYS USE A PERSON TO HELP GUIDE

they can talk to you through 6571 reversing camera, or use a person standing on back corner of appliance and use hand signals visible in mirrors



Reversing Camera on 6571 also has microphone



Always use mirrors, if fogged up, STOP put mirror heaters and demister on in cab



Wheels line up on yellow lines



6571 is very tight on east side of station

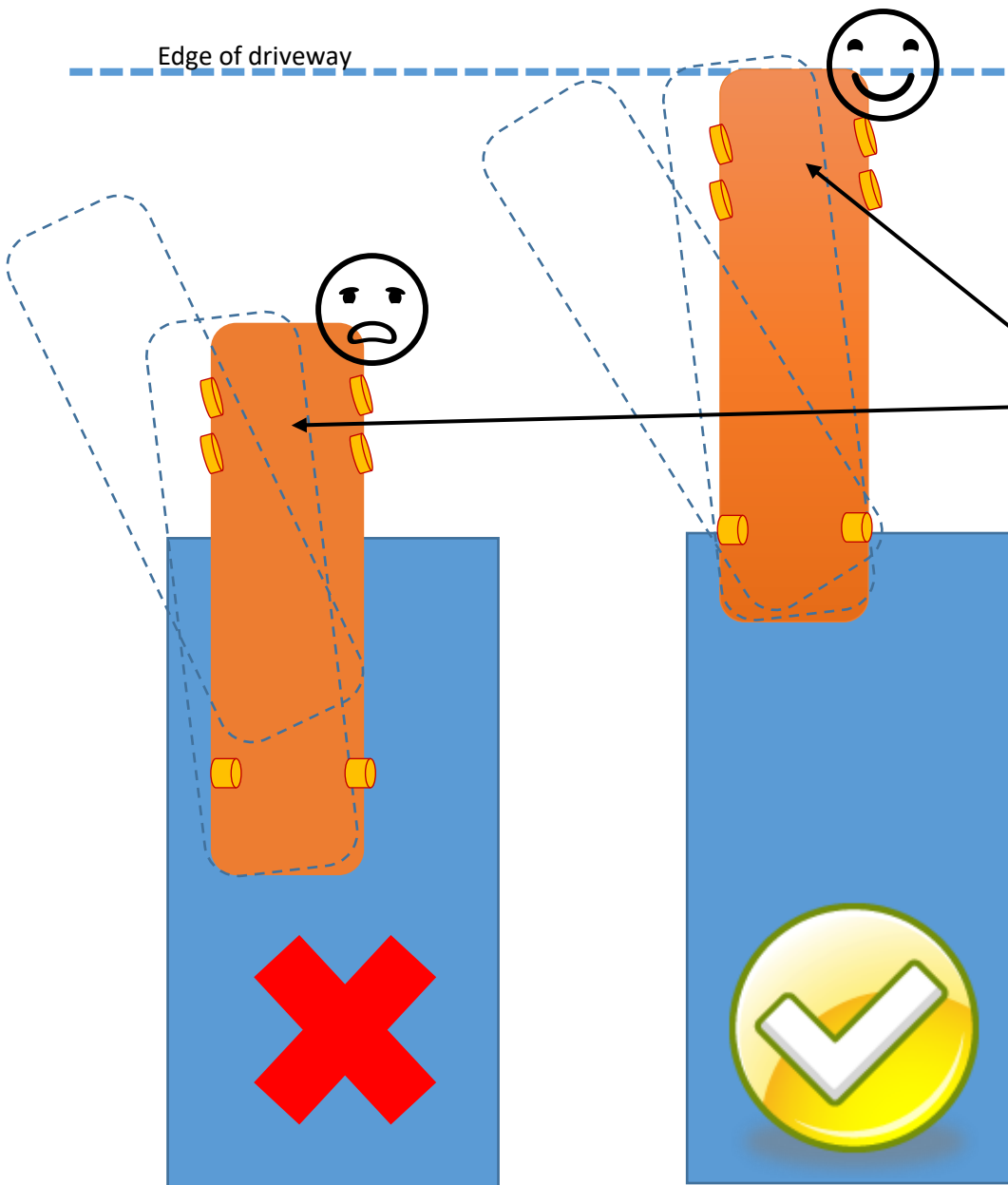
LOOKUP WHEN CLOSING GARAGE DOOR TO ENSURE APPLIANCES ARE CLEAR OF DOOR

when appliances are parked on an angle only one rear tyre will touch wheel chocks which means garage door may not be able to close.

Be aware of 6575 pivots on rear axle very fast due to dual-axle steering, when reversing put rear axle inside station prior to turning sharply, also when pulling out do not turn until rear axle almost clear of station.

LOFF Quick Ref Guide – Driving 6575 Out of Station

If your reading this and thinking why was this written its because you will not be the last or the first person to take out the corner post of the garage door with 6575. It has happened at least 4 times at writing this userguide causing damage to both station and the appliance, so take care, read this carefully, and make all drivers aware of this guide.



**Station Shown in Blue
6575 Shown in Orange**

Be aware 6575 pivots on rear axle very fast due to dual-axle front steering which puts the steering pivot point well behind the driver's seat unlike 6571 and a normal vehicle.

When pulling out do not turn until rear axle is almost clear of station, and the nose of truck is just over the far side of the driveway.

THIS WARNING MUST BE PLACED ON DRIVERS STEERING WHEEL DURING STORAGE

LOFF Quick Ref Guide – Driving 6571 Offroad

All drivers using 6571 offroad must have completed their 4WD training.

- **Whenever in an offroad situation, engage DIFF-LOCK at all times**

You cannot generally engage this once your stuck, so doing this immediately when off road is your best chance of not getting the vehicle in trouble.

- **Always consider the use of LOW range early on** better to have it rather than want it later, once stuck or on a hill it can be hard to engage.

- **Disengage DIFF-LOCK when turning tightly** this will improve the turning circle, but re-engage as soon as possible.

- **If in doubt walk the track or ground prior to driving it, and use a spotter on tight or off-chamber tracks**

It is possible to get 6571 stuck, it is a very heavy vehicle and in soft ground you have potential to bog the vehicle down. Ensure you even walk the ground prior to driving if in doubt. Also, watch for off camber tracks, trying to stay to the inside at all times and using a spotter to check for track conditions such as washouts, slippery surfaces.



Entry and exit angles of 6571 are better than most 4WD utes

Nothing is urgent enough not to assess the situation correctly ensuring you do not get the vehicles stuck

USE A SPOTTER

WALK A ROUTE PRIOR

FAILED HILL CLIMB PROCEEDURE:

1. **YOU MUST PUT THE VEHICLE INTO REVERSE GEAR – DO NOT USE NEUTRAL (you should already be in LOW 4WD).**
2. **If stalled start the vehicle while in reverse gear (foot off the clutch), this is possible!**
3. **If you find you are sliding down the hill, gentle application of the accelerator pedal can give you the needed traction to steer the vehicle.**

WARNING: Using the brakes will just increase the slide.

Often people will jump straight onto the brakes once they realise they're not going to make it all the way up the hill. As it is dangerous to try to turn the vehicle around whilst on top of the hill, they will then attempt to leave the vehicle in neutral and use the brakes all the way back down the hill. What you don't realise is that this is very similar to descending a hill forwards. In all circumstances you will want to do this in gear and in control of the vehicle using the engine compression to brake the vehicle back down the descent. Place the vehicle in reverse gear, leave the transfer in low range and let the engine compression do the braking for you. Do not be tempted to touch the brake pedal or clutch pedal.

RIVER CROSSINGS:

1. Always Walk the River Bed prior to crossing if not familiar. Check entry and exit points.
2. Always ensure DIFF LOCK and LOW 4WD is engaged

LOFF Quick Ref Guide – Towing / Ropes

All drivers using 6571 offroad must have completed their 4WD training.

LOFF Quick Ref Guide – Appliance Maintenance Schedule 20_____

Bi-Monthly	May	Jul	Sep	Nov	Jan	Mar
6571						
Izuzu Oil and Water & Fluids						
Tire Pressure						
Wajax Fuel Tank Filled x2						
Chainsaw Fuel + Chain Oil Tank Filled						
2 Stroke Stihl Chainsaw Oil Filled						
Run Chainsaws						
Run Wajax's						
Replace AA+AAA Batteries Supply						
Silicon Spray Ladder and Locker Runners						
Handheld Radios (operating)						
Recharge Portable LED Lights						
Torch Batteries						
Darley Gear Oil Check (25hrs or 3 mths)						
6575						
Hino Oil and Water & Fluids						
Check Batteries Terminals						
Mounted and Portable Pump Oil						
Additional Pump Fuel Tanks Filled						
Rotate and move tank valve						
Tire Pressures						
Replace AA Batteries Supply						
Torch Batteries						
Station						
Rubbish Bin						

6 Monthly	May	Nov
6571		
Inspect Inside Water Tank (baffles balls)		
Tank Restraining Straps (tight)		
Check Battery Terminals (not loose or corroded)		
Hose Reel Grease		
Pump Fuel Filter Water Trap cleared		
Full gear list inspection and check		
Deutz Oil Level (25hrs or 3-6 mth)		
Darley Gear Oil Change (50hrs or 6 mths)		
Check all wheel nuts tight		
Check most screws around appliance tight		
First aid kit inspection		
Replace Chainsaw Fuel (if not used)		
COF / Registration Check / RUC Current		
6575		
Check all Wheel Nuts tight		
First aid kit inspection		
Full gear inspection and check		
COF / Registration Check / RUC Current		

12 Months	May
6571	
Deutz Pump Oil Change (50hrs or 12 mths) (Shorland)	
Check Drinking Water + Food Supplies	
Oxygen Bottle Serviced (BOC)	
Extinguisher Certification (Ray S.)	
AED Operation and Battery Test	
Wajax Annual Pump Test / Inspection (Ray S.)	
6571 Pump Test / Inspection (Protech)	
IZUZU Annual Service (Shorland)	
6575	
Check Drinking Water Supplies	
Extinguisher Cert (Ray S.)	
Annual Pump Test / Inspection (Ray S.)	
Hino Annual Service (Truckstops)	
Station	
Upstairs Storage Cleanup	
General sweep out and locker tidy-up	

LOFF Quick Ref Guide – Post Callout Checks

COMPLETE CALL OUT LOG BOOK

- Date, Event ID, Names, Time Involved, Short Incident Description.
- Update white board.

REPLACE CONSUMABLES

- Fill Fuel Cans + Appliances min ½ tank (do on way home from fire)
- Recharge LED Lights (place on extension cord in middle of station)
- AA and AAA Batteries
- Drinking Water
- Soap Capsules
- Class A Foam
- Sharpen Saws
- First Aid Supplies
- Toilet Paper 😊

HOSE CLEANING AND REPLACEMENT

- **Used 41mm hose should be placed behind 6575**
Call Ray Shields and notify it is available for pickup for cleaning (phone list)
- **Replace all hose packs used immediately**
if none available on station get immediate replacements with 12hrs by calling Ray Shields and if needed from the RDC store via Richard Horn.

REPAIR / REPLACEMENT EQUIPMENT

- **Repair it or Replace it before leaving station**
- **If not possible write up on white board and place on table**
call Phil Muldoon for next steps, if critical need prior to next call out.

INCIDENT / INJURY AT CALLOUT

- **Any property damage / injuries need a short report to Phil Muldoon ASAP**
after incident (call immediately).

LOFF Quick Ref Guide – Tank Cleaning For Potable Water

Delivered water should be safe for human consumption and obtained from an approved source. It is necessary to clean and disinfect the tank if water has been taken from another source other than a fire hydrant or when water sits longer than a month. This is to remove algae, silt, and bacteria which may be harmful i.e. meningococcal meningitis.

WARNING: To avoid severe personal injury when using corrosive chemicals, observe all safety precautions recommended by the chemical manufacturer/ supplier. Read attached MSDS (Material Safety Data Sheet) prior to handling if container is not labeled.

PROTECTIVE EQUIPMENT: Use PVC GLOVES, SAFETY GLASSES / GOGGLES / FACE SHIELD, FULL COVERAGE OVERALLS, and BOOTS at all times when handling.

STORAGE: STORE ONLY IN APPROVED / ORIGINAL CONTAINERS THAT ARE CLEARLY LABELLED

Step 1: Empty the tank if full of water from any other source except hydrant supply.

Step 2: Fill the tank

Step 4: Add chlorine to each tank at the following concentrations:

4000L 560ml	2000L 280ml	2000L 280ml	2000L 280ml	4000L 560ml
----------------	----------------	----------------	----------------	----------------

140ml per 1,000L water

280ml per 2,000L water

560ml per 4,000L water

1400ml per 10,000L water

2000ml per 14,000L water



Step 5: Leave chlorine to stand for a minimum of two hours.

Step 6: Drain chlorinated water into waste management drain (avoid direct skin contact)

Step 7: Fill all tanks.

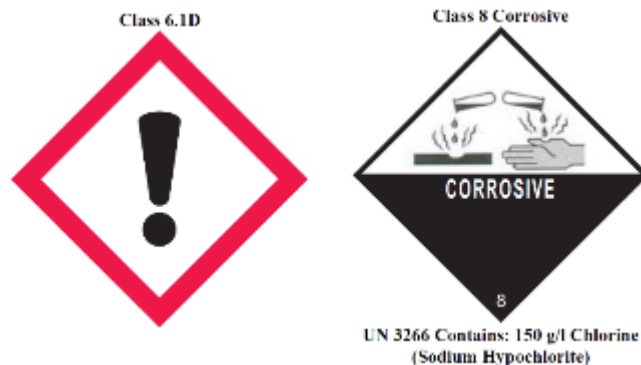
Step 8: Empty all tanks.

Step 9: Fill the tanks and water is safe for consuming.

Notes on Chlorine

Chlorine is available in various forms, including calcium hypochlorite (Powder), sodium hypochlorite (Liquid).

- LIQUID: Sodium hypochlorite is a solution. **The solution must be stored carefully to prevent deterioration, it can cause burns to skin and severe eye damage.** Sodium hypochlorite is most commonly used for disinfection in the home and in water supplies where transport of the solution is not a problem.



**SODIUM HYPOCHLORITE (SOLUTION, ACTIVE CHLORINE
>10%)**

ICSC: 1119

Peer-Review Status: 19.10.1999 Validated

Sodium oxychloride
Sodium chloride oxide

CAS #: 7681-52-9 RTECS #: Formula: NaClO
NH3486300 Molecular mass: 74.4
UN #: 1791
EC #: 017-011-00-1
EINECS #: 231-668-3

TYPES OF HAZARD / EXPOSURE	ACUTE HAZARDS / SYMPTOMS	PREVENTION	FIRST AID / FIRE FIGHTING
FIRE	Not combustible. Gives off irritating or toxic fumes (or gases) in a fire.		Use water spray, powder, foam, carbon dioxide.
EXPLOSION			In case of fire: keep drums, etc., cool by spraying with water.
EXPOSURE		STRICT HYGIENE!	
Inhalation	Burning sensation. Cough. Laboured breathing. Shortness of breath. Sore throat. Symptoms may be delayed. See Notes.	Use ventilation, local exhaust or breathing protection.	Fresh air, rest. Half-upright position. Refer for medical attention.
Skin	Redness. Skin burns. Pain. Blisters.	Protective gloves. Protective clothing.	First rinse with plenty of water for at least 15 minutes, then remove contaminated clothes and rinse again. Refer for medical attention .
Eyes	Redness. Pain. Severe deep burns.	Wear face shield or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then refer for medical attention.

Ingestion	Abdominal pain. Burning sensation. Shock or collapse. Unconsciousness. Vomiting.	Do not eat, drink, or smoke during work.	Rinse mouth. Do NOT induce vomiting. Refer for medical attention .
SPILLAGE DISPOSAL		PACKAGING & LABELLING	
Ventilation. Collect leaking and spilled liquid in sealable containers as far as possible. Then wash away with plenty of water. Do NOT absorb in sawdust or other combustible absorbents. Personal protection: complete protective clothing including self-contained breathing apparatus. Do NOT let this chemical enter the environment.		Do not transport with food and feedstuffs. EC Classification Symbol: C, N; R: 31-34-50; S: (1/2)-28-45-50-61; Note: B UN Classification UN Hazard Class: 8; UN Pack Group: II, III GHS Classification	
EMERGENCY RESPONSE		SAFE STORAGE	
Transport Emergency Card: TEC (R)-80S1791.		Separated from combustible substances, reducing agents, acids and food and feedstuffs. See Chemical Dangers. Cool. Keep in the dark. Well closed.	
IMPORTANT DATA			
<p>Physical State; Appearance CLEAR SLIGHTLY YELLOW SOLUTION WITH CHARACTERISTIC ODOUR.</p> <p>Physical dangers</p> <p>Chemical dangers Decomposes on heating and on contact with acids. Decomposes under the influence of light. This produces toxic and corrosive gases including chlorine (see ICSC 0126). The substance is a strong oxidant. It reacts violently with combustible and reducing materials. This generates fire and explosion hazard. The solution in water is a strong base. It reacts violently with acid and is corrosive. Attacks many metals.</p> <p>Occupational exposure limits TLV (NOT-ESTABLISHED):.</p>		<p>Routes of exposure The substance can be absorbed into the body by inhalation of its aerosol and by ingestion.</p> <p>Inhalation risk No indication can be given about the rate at which a harmful concentration of this substance in the air is reached on evaporation at 20°C.</p> <p>Effects of short-term exposure The substance is corrosive to the eyes, skin and respiratory tract. Corrosive on ingestion. Inhalation of the aerosol may cause lung oedema. See Notes. The effects may be delayed. Medical observation is indicated.</p> <p>Effects of long-term or repeated exposure Repeated or prolonged contact may cause skin sensitization.</p>	
PHYSICAL PROPERTIES		ENVIRONMENTAL DATA	
Relative density (water = 1): 1.21 (14% aqueous solution)		The substance is toxic to aquatic organisms.	

LOFF Quick Ref Guide – Rural Fire Authority Boundaries

This will determine whom the Principal Rural Fire Officer is whom takes ownership of any fire incidents.

