



SITUATION REPORT

3. Location

South Western end Chatham Island

4. Vegetation

Tarehinau Scrub / peat /

5. NZTM Grid Ref.

6. Assessment

Vegetation in Tarahinau, (Dracophyllum) bracken and scrub fuels with areas of Peat, started on the 1st Feb and ran until rain stopped the spread of fire late on the night of the 2nd burning a total of around 2440ha, destroying two structures (huts) and burning up to another, both near the southern coastal end of the fire-ground. No further fire spread was experienced during Saturday Sunday. Small flare ups near the perimeter are common, these are easily contained by helicopters. Thermal camera data was gathered yesterday, limited number of hotspots are still visible on the perimeter and crews are currently cold trailing the edge and digging up hotspots. 50 mm of rain has fallen so far this week.

7. Action taken

Public was evacuated from Waitangi Wharf Owenga Road as a precaution on the evening of 2nd Feb, and were allowed back into the area the following day once rain moderated fire behaviour.

Local machinery has mulched fuel breaks in Sector Zulu/Sierra, for protection of structures.

Two medium helicopters are continuing to support ground crews with transport and bucket work.

Ground crews are focusing on blacking out to 50m from the perimeter. All tracks have been marked and helipads cut.

The first Incident Management Team from NZ arrived midday on the 3rd Feb and transitioned on the 10th. The 3rd IMT started on the 16th of Feb.

8. Factors

Access around fire ground difficult due to risk of peat Tomo's meaning access restricted to tracks with assistance of local guides.

Obtaining resources that are not available on the island will take 2-4 days to arrive.

Weather – See separate weather / fire behaviour predictions at back of IAP.

Early thermal camera monitoring revealed a much higher number of hot areas than previously estimated. This led to a revision of the objectives especially the completion time. However the latest thermal run indicated that crews had been making great progress; the completion date has not been adjusted.

9. Predicted Incident Development

There is a high degree of confidence that further fire spread will be prevented and the objectives below will be achieved.

Ex tropical cyclone Gits is expected to reach the Chathams on Wednesday, this could bring significant rain, poor visibility and disruptions to flights, resource arrivals/departures.

10. Prepared by: GLENN THOMPSON

INCIDENT OBJECTIVES AND STRATEGIES

3. INCIDENT OBJECTIVE(S)/AIM MISSION: (SMART, Specific, Measureable, Achievable Relevant, Time bound)

1. Ensure safety of all responders
2. Protect life of residents
3. Minimise loss of property (especially properties along Waitangi Wharf Owenga Road)
4. Minimise loss of other values. (especially Taiko Trust Ecological area, and Tuuta/Rangaika Reserve)
5. To secure the entire perimeter (estimated 50km long) by extinguishing all burning material within 30m of perimeter by the 28th February

4. STRATEGY/ STRATEGIES: (Plan of Action to meet Incident Objectives)

1. Appoint a dedicated safety officer.
2. Continue to liaise with all effected parties/agencies
3. Dedicate resources to the appropriate flank/sector as weather dictates
4. Treatment of all burning material within 30m of perimeter will be achieved by:
 - Targeted extinguishment of all burning material within 30m of perimeter, detected from a helicopter or thermal camera in areas where canopy does not obscure view of the ground and
 - Cold trail and black out perimeter to a width 30m in areas where the canopy obscures the view of the ground from the air.
 - Monitor sectors not being patrolled by helicopter.

Retain at least one aircraft until perimeter is secure.

5. Prepared by: Glenn Thompson

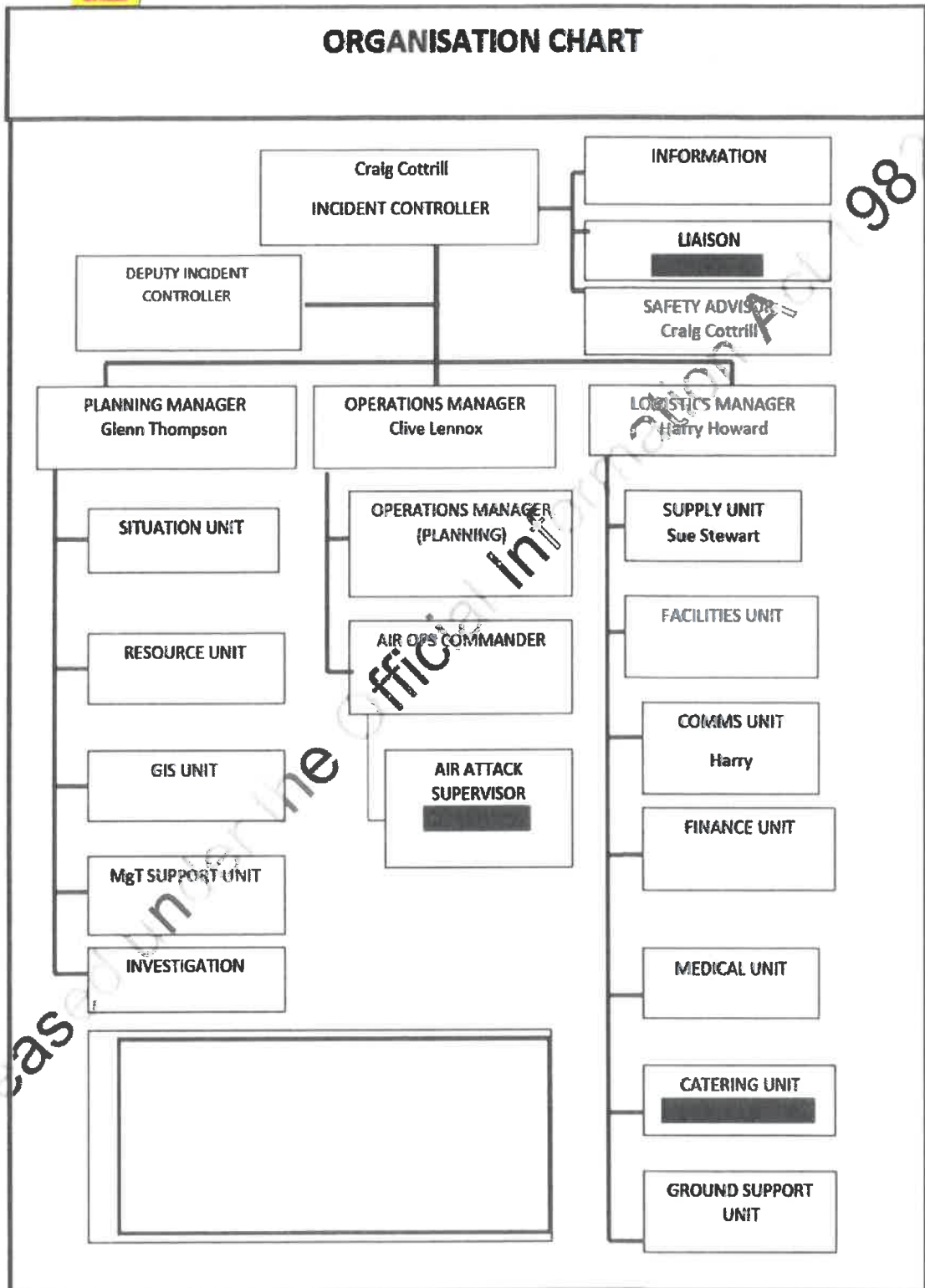


ORGANISATION LIST

3. Incident Control		Phone	Cell Phone	Radio Ch
Incident Controller	Craig Cottrill	██████		Fire RPT 1
Safety Officer	Craig Cottrill	██████		Fire RPT 1
Liaison Officer	██████	██████		Fire RPT 1
4. Agency Representative		Phone	Cell Phone	Radio Ch
Lead Agency	FENZ	██████		Fire RPT 1
Agency	Chatham Islands Council	██████		
Agency	Enterprise Trust	██████		
5. Planning/Intel Section		Phone	Cell Phone	Radio Ch
Planning/Intel Manager	Glenn Thompson	██████		Fire RPT 1
Situations Unit				
Resources Unit	Harry Howard	██████		Fire RPT 1
6. Logistics Section		Phone	Cell Phone	Radio Ch
Logistics Manager	Harry Howard	██████		Fire RPT 1
Supply Unit	Sue Stewart (NZ based)		██████	
Catering Unit	██████	██████		
Facilities Unit				
Finance Unit				
Communications Unit				
Medical Unit				
7. Operations Section		Phone	Cell Phone	Radio Ch
Operations Manager	Clive Lennox	██████		Fire RPT 1
Sector Alpha Supervisor				
Sector Zulu Supervisor				
Sector Sierra Supervisor				
Air Attack Supervisor	██████	██████		Fire RPT 1
8. Prepared by:		Glenn Thompson		

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ORGANISATION CHART





COMMUNICATIONS PLAN

3. Radio Channels				
Assigned To	Function	Channel	Frequency	System
Command	Management	VHF Fire RPT 1		
Tactical	Crew Coms	VHF Fire 1		
Ground to Air	Air Ops	VHF Fire 4		
Air to Air	Pilots	119.1		
Radio channels versus frequency for VHF Fire RPT 1				
Agency	Radio	Channel	Comments	
Pumicelands	ICOM	CH 16		
DOC	Base sets	Ch 30		
FENZ	DUAL Band	Zone A CH 15		
6. Other (e.g. email, Sat phone, etc.)				
7. Prepared by:		Harry Howard		

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AIR OPERATIONS PLAN

3. Personnel and Communications

Position	Name	Affiliation	Phone	Radio Channel
Air Div. Commander				
Air Attack Supervisor	[REDACTED]	GRWC		Fire 4 Fire RPT 1
Air Support Supervisor				
Lead Helicopter Pilot	[REDACTED]	Southern Helicopters		Fire 4 Fire RPT 1
Lead Fixed-Wing Pilot				

4. Air Resource Assignments

Pilot Name/ Company	Aircraft Type	Reg or Call sign	Assignment	Tactical Freq/Chan	Telephone Numbers
[REDACTED] - Southern Helicopters	Squirrel i B3	IRM	Support ground crews	VHF Fire 4	
[REDACTED] - Garden City	BK117	HGU		VHF Fire 4	

5. Location of Filling Points/Service Areas

Name	Grid Reference
Staging Area	Various dipping points within fire ground

6. Safety Notes / Hazards / Radio Coverage Limitations

Power lines running East West on Owenga Road. Small Cessna fixed wing operating from airport from Pitt Island. Normal airport operations domestic from Tuuta airfield.

7. Air Operations Special Equip or Service

All Chatham's staff to transfer fuel from their tanker to Helo's following CAA standards. Landowner has confirmed no stock will be in the staging area until operations finish.

8. Prepared By:

[REDACTED]



SAFETY PLAN

3. General Safety Points

LACES	Fire Orders	Watch out
<p>L - Lookout(s)</p> <p>A – Anchor Point(s)</p> <p>C – Communication(s)</p> <p>E – Escape Route(s)</p> <p>S – Safety Zone(s)</p>	<ol style="list-style-type: none"> 1. Fight fire aggressively but provide for safety first. 2. Initiate all action based upon current and expected fire behaviour. 3. Recognise current weather conditions and obtain forecasts. 4. Ensure instructions are given and understood. 5. Obtain current information on fire status. 6. Remain in Communication with crew members, your supervisor and adjoining forces. 7. Determine safety zones and escape routes. 8. Establish lookouts in potentially hazardous situations. 9. Retain control at all times. 10. Stay alert, keep calm, think clearly, act decisively. 	<ol style="list-style-type: none"> 1. Fire not scouted and sized up. 2. In country not seen in daylight. 3. Safety zones and escape routes not identified. 4. Unfamiliar with weather and local factors influencing fire behaviour. 5. Uninformed in strategy, tactics and hazards. 6. Instructions and assignments not clear. 7. No communications link with crew members or supervisor. 8. Constructing fireline without safe anchor point. 9. Constructing fireline downhill with fire below. 10. Attempting frontal assault on fire. 11. Unburned fuel between you and the fire. 12. Cannot see main fire, not in contact with anyone who can. 13. On hillside where rolling material can ignite fuel below. 14. Weather is getting hotter and drier. 15. Wind increases and/or changes direction. 16. Getting frequent spot fires across the line. 17. Terrain and fuels make escape to safety zones difficult. 18. Taking a nap near the fire line.

4. Specific Safety Points

Weather – Air Ops, pilots and crews briefed and monitoring for rapid change.

Fatigue – Hydrate and Crew Boss to monitor, rest periods.

Slips, Trips and Falls – Crew briefed, made aware "punji sticks", cliffs, deep water and bogs.

Air Operations – Crew briefings, pilots and Air Ops monitoring

Driving – All personnel briefed 60kph speed limit, stock on road.

Dust – Air Crews briefed, ground crews supplied PPE and monitor

Fuels and Foam – Correct handling and storage, crews briefed. Helos now fuelling at staging

Radio communications – Air ops to monitor radio

RLB – RCCNZ notified of Chatham Islands activity

Livestock wild bulls and pigs – Ground crews briefed

Non FENZ resources – Operating on the fire ground. Assistance provided, welfare monitored

Off road driving (4x4 and LUV) – restricted to DOC and other qualified personnel.

Chainsaws- Only to be operated by unit standard qualified personnel, FULL PPE TO BE USED

Hygiene- Wash hands before eating and after toilet breaks

5. Prepared By:

Craig Cottrill

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SECTOR ASSIGNMENTS

NB- All sectors on one page.

6. Operations Manager		Affiliation	Phone	Radio Ch
Steve Joyce		FENZ	[REDACTED]	Fire RPT 1
7. Resource Allocation				
Sector	Crew / Resource	Leader (s)	# Persons	
A	Monitor by helo			
B	Monitor by helo			
C	Taranaki	[REDACTED]	5	
D	Monitor by helo			
S	Wellington	[REDACTED]	5	
X	Pumiclands	[REDACTED]	5	
Z	Monitor by helo			
8. Sector Assignment / Special Instructions				
<p>ALL sectors</p> <ul style="list-style-type: none"> • Dig out hot areas to cold earth and if available mix with water by poking nozzle right into the ground. • Continuation of extinguishment of all hot spots to a width of 30m from perimeter containment • Develop and flag ground access • Maintain reporting schedules, on commencement of work and twice during each day. • Use helicopter for water if necessary. • Use helicopter to recon fire line. • X-Ray requires wajax and 2 hose packs (Sling in). Drop off HP and work hot spot. Dig up and drown 				
9. Sector Communications				
Operations Manager.	Clive Lennox		Phone	Radio Ch
Attack Supervisor	[REDACTED]			Fire 4
Safety Officer	Craig Cottrill			Fire RPT 1
10. Prepared By: Clive Lennox				



MEDICAL PLAN							
3. First Aid Station							
Name	Location	Phone/Radio Channel	Paramedics available at Station				
Point 106	Staging	Fire RPT 1	First Aiders				
Crew Leaders	Various sectors	Fire RPT 1	First Aiders				
4. Transportation							
Ambulance Service		Address	Phone/Radio Channel	Paramedics available with Ambulance			
Air Operations (Emergency Evac only)							
St John Ambulance		1 Hospital Road		Yes			
WestPac Rescue				Yes			
Life Flight							
5. Hospitals							
Hell			Travel Time		Burn		
Hospital Name	Address	Phone	Road	Air	Unit	Ped	
Chatham's Medical Centre	1 Hospital Road		20 min	10 min	No	No	
6. Special Emergency Procedures							
<p>Medical Centre utilised to stabilise patients Life Flight dispatched from Wellington Check with Chatham's Air for Aircraft Movements</p> <p>STAFF WITH KNOWN MEDICAL CONDITIONS: Advise Logistics Manager</p>							
7. Prepared by Logistics							
Manager / Safety Officer:]		Harry Howard					
8. Reviewed by Incident							
Controller:		Craig Cottrill					

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WEATHER AND FIRE BEHAVIOUR PREDICTION										
		Temp	RH	Rain mm	Wind Km/hr	Wind Dir	FFMC	ISI	Grass EROS 75% cured m/hr	Scrub EROS m/hr
Sunday	18/02	20	80	0	20	NW	76	2	60	500 E
Monday	19/02	20	80	0	25	NW	79	3	80	600 E
Tuesday	20/02	18	85	5	25	S	53	1	12	120 E

Prepared By: Glenn Thompson

Updated forecast – 17 February 4:00 pm NZDT

Rest of Today:

- Wind NW, sustained 25-35 km/h. Gusts up to 50 km/h this afternoon and dropping to around 40 km/h this evening.
- Temperature falling to around 18°C by midnight.
- Relative humidity rising to near 100% by about 9 pm.
- No rainfall expected.

Sunday (midnight to midnight):

- WNW wind before sunrise becoming variable for a time in the morning, then tending NNW by late morning and continuing through the day. Sustained wind 10-15 km/h in the morning, increasing to 15-25 km/h thereafter. Gusts 35-40 km/h possible in the afternoon and evening.
 - Morning minimum temperature near 18°C, increasing to 23°C in the afternoon.
 - Morning relative humidity near 100%, falling to near 85% in the afternoon.
 - Slight chance for a pre-dawn shower; otherwise, no rainfall expected.
- Visibility may occasionally drop below 1 km during the afternoon and evening.

Monday (midnight to midnight):

- NW wind becoming WNW in the afternoon. Sustained 20-25 km/h during the morning increasing to 25-35 km/h during the afternoon and evening. Gusts up to 50 km/h possible in the afternoon and evening.
- Morning minimum temperature near 18°C, increasing to 22°C in the afternoon.
- Morning relative humidity near 100%, falling to 85% in the afternoon.

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- No rainfall expected during the day. Showers possibly developing toward midnight.

Tuesday (outlook):

- W wind shifting to S in the morning and then SE-E in the afternoon. Sustained winds 20-30 km/h with gusts up to 50 km/h late in the day.
- The temperature may fall during the day, from near 20°C early in the morning to the mid-teens in the afternoon.
- Morning relative humidity near 100%, falling to 85% in the afternoon.
- Periodic showers possible, with rainfall amounts up to 15 mm.

On the potential impact of Tropical Cyclone Gita

Rain from ex-Tropical Cyclone Gita will most likely peak on Wednesday into Thursday morning, with a chance for a significant rainfall in excess of 50 mm. However, there still exists some uncertainty on the storm's track and placement of heavy rainfall. Wind gusts near or above 80 km/h are possible as well, especially Wednesday and Thursday.

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Makara Fire, Chatham Island.
Shift period: 18th Feb 2018 0700-1900

LOG

Time.	Action

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Incident Action Plan

MAKARA FIRE



1. Approved by Incident Controller:

Name

Signed

Date/Time

Glenn Thompson

18/2/18 19:00



SITUATION REPORT

3. Location South Western end Chatham Island	4. Vegetation Tarehinau Scrub / peat /	5. NZTM Grid Ref.
6. Assessment Vegetation in Tarahinau, (Dracophyllum) bracken and scrub fuels with areas of Peat, started on the 1 st Feb and ran until rain stopped the spread of fire late on the night of the 2 nd burning a total of around 2440ha, destroying two structures (huts) and burning up to another, both near the southern coastal end of the fire-ground. No further fire spread was experienced during Saturday Sunday. Small flare ups near the perimeter are common, these are easily contained by helicopters. Thermal camera data was gathered on Friday, indicated a limited number of hotspots are still visible on the perimeter and crews are currently cold trailing the edge and digging up hotspots. 50 mm of rain fell last week.		
7. Action taken Public was evacuated from Waitangi Wharf Owenga Road as a precaution on the evening of 2nd Feb, and were allowed back into the area the following day once rain moderated fire behaviour. Local machinery has mulched fuel breaks in Sector Zulu/Sierra, for protection of structures. Two medium helicopters are continuing to support ground crews with transport and bucket work. Ground crews are focusing on blacking out to 30m from the perimeter. All tracks have been marked and helipads cut. The first Incident Management Team from NZ arrived midday on the 3rd Feb and transitioned on the 10 th . The 3 rd IMT started on the 16 th of Feb.		
8. Factors Access around fire-ground difficult due to risk of peat Tomo's meaning access restricted to tracks with assistance of local guides. Obtaining resources that are not available on the Island will take 2-4 days to arrive. Weather – See separate weather / fire behaviour predictions at back of IAP. Thermal camera monitoring late last week revealed a much higher number of hot areas than previously estimated. This led to a revision of the objectives especially the completion time. However the last thermal run indicated that crews had been making great progress; the completion date has not been adjusted.		
9. Predicted Incident Development There is a high degree of confidence that further fire spread will be prevented and the objectives below will be achieved. Rain from ex-Tropical Cyclone Gita will most likely peak on Wednesday evening into Thursday morning, with a chance of 35mm of rain. Wind gusts near or above 80 - 90 km/h are possible as well, especially on Thursday.		
10. Prepared by: GLENN THOMPSON		

INCIDENT OBJECTIVES AND STRATEGIES

3. INCIDENT OBJECTIVE(S)/AIM MISSION: (SMART, Specific, Measurable, Achievable Relevant, Time bound)

1. Ensure safety of all responders
2. Protect life of residents
3. Minimise loss of property (especially properties along Waitangi Wharf Owenga Road)
4. Minimise loss of other values. (especially Taiko Trust Ecological area, and Tuuta/Rangaika Reserve)
5. To secure the entire perimeter (estimated 50km long) by extinguishing all burning material within 30m of perimeter by the 28th February

4. STRATEGY/ STRATEGIES: (Plan of Action to meet Incident Objectives)

1. Appoint a dedicated safety officer.
2. Continue to liaise with all effected parties/agencies
3. Dedicate resources to the appropriate flank/sector as weather dictates
4. Treatment of all burning material within 30m of perimeter will be achieved by:
 - Targeted extinguishment of all burning material within 30m of perimeter, detected from a helicopter or thermal camera in areas where canopy does not obscure view of the ground and
 - Cold trail and black out perimeter to a width 30m in areas where the canopy obscures the view of the ground from the air.
 - Monitor sectors not being patrolled by helicopter

Retain at least one aircraft until perimeter is secure.

5. Prepared by: Glenn Thompson

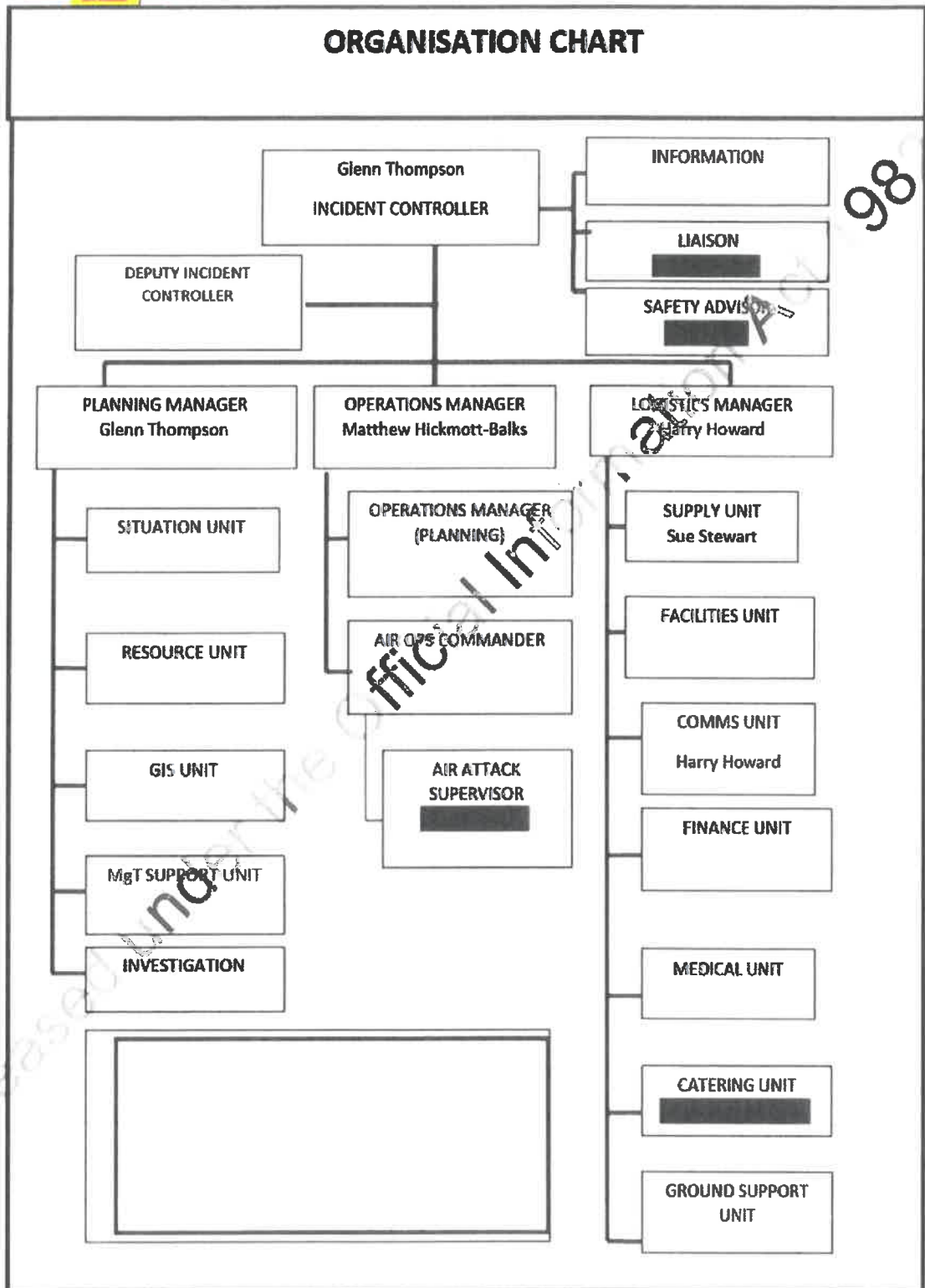


ORGANISATION LIST

3. Incident Control			
		Phone	Cell Phone Radio Ch
Incident Controller	Glenn Thompson	██████	Fire RPT 1
Safety Officer	██████	██████	Fire RPT 1
Liaison Officer	██████	██████	Fire RPT 1
4. Agency Representative			
		Phone	Cell Phone Radio Ch
Lead Agency	FENZ	██████	Fire RPT 1
Agency	Chatham Islands Council	██████	
Agency	Enterprise Trust	██████	
5. Planning/Intel Section			
		Phone	Cell Phone Radio Ch
Planning/Intel Manager	Glenn Thompson	██████	Fire RPT 1
Situations Unit			
Resources Unit	Harry Howard	██████	Fire RPT 1
6. Logistics Section			
		Phone	Cell Phone Radio Ch
Logistics Manager	Harry Howard	██████	Fire RPT 1
Supply Unit	Sue Stewart (NZ based)		██████
Catering Unit	██████	██████	
Facilities Unit			
Finance Unit			
Communications Unit			
Medical Unit			
7. Operations Section			
		Phone	Cell Phone Radio Ch
Operations Manager	Matthew Hickmott-Balks	██████	Fire RPT 1
Sector Alpha Supervisor			
Sector Zulu Supervisor			
Sector Sierra Supervisor			
Air Attack Supervisor	██████	██████	Fire RPT 1
8. Prepared by:		Glenn Thompson	

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ORGANISATION CHART



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Makara Fire, Chatham Island.
Shift period: 19th Feb 2018 0700-1900

COMMUNICATIONS PLAN

3. Radio Channels Assigned To				
Assigned To	Function	Channel	Frequency	System
Command	Management	VHF Fire RPT 1		
Tactical	Crew Coms	VHF Fire 1		
Ground to Air	Air Ops	VHF Fire 4		
Air to Air	Pilots	118.1		
Radio channels versus frequency for VHF Fire RPT 1				
Agency	Radio	Channel		Comments
Pumicelands	ICOM	CH 16		
DOC	Base sets	Ch 30		
FENZ	DUAL Band	Zone A CH 15		
6. Other (e.g. email, Sat phone, etc.)				
7. Prepared by:		Harry Howard		

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AIR OPERATIONS PLAN

3. Personnel and Communications

Position	Name	Affiliation	Phone	Radio Chan
Air Div. Commander				
Air Attack Supervisor	[REDACTED]	GRWC		Fire 4 Fire RPT 1
Air Support Supervisor				
Lead Helicopter Pilot	[REDACTED]	Southern Helicopters		Fire 4 Fire RPT 1
Lead Fixed-Wing Pilot				

4. Air Resource Assignments

Pilot Name/ Company	Aircraft Type	Reg or Call sign	Assignment	Tactical Freq/Chan	Telephone Numbers
[REDACTED] - Southern Helicopters	Squirrel B3	IRM	Support ground crews	VHF Fire 4	
[REDACTED] - Garden City	BK117	HGU		VHF Fire 4	

5. Location of Filling Points/Service Areas

Name	Grid Reference
Staging Area	Various dipping points within fire ground

6. Safety Notes / Hazards / Radio Coverage Limitations

Power lines running East West on Owenga Road. Small Cessna fixed wing operating from airport from Pitt Island. Normal airport operations domestic from Tuuta airfield.

7. Air Operations Special Equip or Service

All Chatham's staff to transfer fuel from their tanker to Helo's following CAA standards. Landowner has confirmed no stock will be in the staging area until operations finish.

8. Prepared By: [REDACTED]

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SAFETY PLAN

3. General Safety Points

LACES	Fire Orders	Watch out
<p>L - Lookout(s)</p> <p>A – Anchor Point(s)</p> <p>C – Communication(s)</p> <p>E – Escape Route(s)</p> <p>S – Safety Zone(s)</p>	<ol style="list-style-type: none"> 1. Fight fire aggressively but provide for safety first. 2. Initiate all action based upon current and expected fire behaviour. 3. Recognise current weather conditions and obtain forecasts. 4. Ensure instructions are given and understood. 5. Obtain current information on fire status. 6. Remain in Communication with crew members, your supervisor and adjoining forces. 7. Determine safety zones and escape routes. 8. Establish lookouts in potentially hazardous situations. 9. Retain control at all times. 10. Stay alert, keep calm, think clearly, act decisively. 	<ol style="list-style-type: none"> 1. Fire not scouted and sized up. 2. In country not seen in daylight. 3. Safety zones and escape routes not identified. 4. Unfamiliar with weather and local factors influencing fire behaviour. 5. Uninformed on strategy, tactics and hazards. 6. Instructions and assignments not clear. 7. No communications link with crew members or supervisor. 8. Constructing fireline without safe anchor point. 9. Constructing fireline downhill with fire below. 10. Attempting frontal assault on fire. 11. Unburned fuel between you and the fire. 12. Cannot see main fire, not in contact with anyone who can. 13. On hillside where rolling material can ignite fuel below. 14. Weather is getting hotter and drier. 15. Wind increases and/or changes direction. 16. Getting frequent spot fires across the line. 17. Terrain and fuels make escape to safety zones difficult. 18. Taking a nap near the fire line.

4. Specific Safety Points

Weather – Air Ops, pilots and crews briefed and monitoring for rapid change.

Fatigue – Hydrate and Crew Boss to monitor, rest periods.

Slips, Trips and Falls – Crew briefed, made aware "punji sticks", cliffs, deep water and bogs.

Air Operations – Crew briefings, pilots and Air Ops monitoring

Driving – All personnel briefed 60kph speed limit, stock on road.

Dust – Air crews briefed, ground crews supplied PPE and monitor

Fuels and Foam – Correct handling and storage, crews briefed. Helos now fuelling at staging

Radio communications – Air ops to monitor radio

PLB – RCCNZ notified of Chatham Islands activity

Livestock wild bulls and pigs – Ground crews briefed

Non FENZ resources – Operating on the fire ground. Assistance provided, welfare monitored

Off road driving (4x4 and LUV) – restricted to DOC and other qualified personnel.

Chainsaws- Only to be operated by unit standard qualified personnel, FULL PPE TO BE USED

Hygiene- Wash hands before eating and after toilet breaks

5. Prepared By:

Glenn Thompson



Makara Fire, Chatham Island.
Shift period: 19th Feb 2018 0700-1900

SECTOR ASSIGNMENTS

NB- All sectors on one page.

6. Operations Manager		Affiliation	Phone	Radio Ch
Matthew Hickmott-Balks		FENZ	[REDACTED]	Fire RPT 1
7. Resource Allocation				
Sector	Crew / Resource	Leader (s)	# Persons	
A	Taranaki	Andrew Lennox	4	
B	Taranaki	Andrew Lennox	4	
C	Wellington	Bryce Holcroft	5	
D	Monitor by helicopter			
S	Monitor by helicopter		5	
X	Monitor by helicopter		5	
Z	Monitor by helicopter			
	Pumicelands	Andy Gitt	5	
8. Sector Assignment / Special Instructions				
ALL sectors				
<ul style="list-style-type: none"> • Dig out hot areas to cold earth and if available mix with water by poking nozzle right into the ground. • Continuation of extinguishment of all hot spots to a width of 30m from perimeter containment • Develop and flag ground access • Maintain reporting schedules, on commencement of work and twice during each day. • Fireline weather observations at 1000hrs, 1200hrs & 1400hrs. • Use helicopter for water if necessary. • Use helicopter to recon fire line. • Bravo Sector: Enter via Helipad 9 and head south to Helipad10. 				
9. Sector Communications				
Operations Manager.	Matthew Hickmott-Balks	Phone	Radio Ch	
Attack Supervisor	[REDACTED]		Fire 4	
Safety Officer	[REDACTED]		Fire RPT 1	
10. Prepared By: Glenn Thompson				

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MEDICAL PLAN

3. First Aid Station											
Name	Location	Phone/Radio Channel	Paramedics available at Station								
Point 106	Staging	Fire RPT 1	First Aiders								
Crew Leaders	Various sectors	Fire RPT 1	First Aiders								
4. Transportation											
Ambulance Service		Address	Phone/Radio Channel								
Air Operations (Emergency Evac only)											
St John Ambulance	1 Hospital Road		Yes								
WestPac Rescue			Yes								
Life Flight											
5. Hospitals											
Heli			Travel Time								
Hospital Name	Address	Phone	Burn								
Chatham's Medical Centre	1 Hospital Road		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;">Road</th> <th style="width: 25%;">Air</th> <th style="width: 25%;">Unit</th> <th style="width: 25%;">Pad</th> </tr> </thead> <tbody> <tr> <td>20 min</td> <td>10 min</td> <td>No</td> <td>No</td> </tr> </tbody> </table>	Road	Air	Unit	Pad	20 min	10 min	No	No
Road	Air	Unit	Pad								
20 min	10 min	No	No								
6. Special Emergency Procedures											
<p>Medical Centre utilised to stabilise patients Life Flight dispatched from Wellington Check with Chatham's Air for Aircraft Movements</p> <p>STAFF WITH KNOWN MEDICAL CONDITIONS: Advise Logistics Manager</p>											
7. Prepared by Logistics											
Manager / Safety Officer:]		Harry Howard									
8. Reviewed by Incident											
Controller:		Glenn Thompson									

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WEATHER AND FIRE BEHAVIOUR PREDICTION										
		Temp	RH	Rain mm	Wind Km/hr	Wind Dir	FFMC	ISI	Grass EROS 75% cured m/hr	Scrub EROS m/hr
Monday	19/02	23	85	0	25	NW	77	4	135	900 E
Tuesday	20/02	20	80	15	20	S	48	1	3	40 E
Wednesday	21/02	20	80	10	30	NW	49	1	8	90 E
Prepared By: Glenn Thompson										

Updated forecast – 19 February 5:45 am NZDT

Monday (midnight to midnight):

- NW wind becoming W in the afternoon, then SW after 6 pm. Sustained 20-30 km/h to 9 am, increasing to 30-40 km/h thereafter. By 6 pm then decreasing to 15-25 km/h after 9 pm. Gusts to 55 km/h possible from mid-morning to mid-afternoon, then less than 40 km/h after 8 pm.
- Temperature increasing to 23°C in the afternoon.
- Relative humidity decreasing to near 80% in the afternoon.
- No rainfall expected.
- Visibility forecast to stay above 1 km.

Tuesday (midnight to midnight):

- SW wind sustained 20 km/h or less, becoming NE after 3 am. After 9 am sustained wind becoming and increasing to Sustained winds 20-30 km/h in the morning, then increasing to 25-35 km/h. Gusts to 45 km/h in the afternoon.
- Early morning temperature near 15°C before sunrise, increasing to near 19°C and nearly steady through about 6 pm.
- Relative humidity near 100% in the morning, decreasing to 85-90% at times.
- Periods of rain likely, heavy at times, with rainfall amounts of 20-40 mm possible. Visibility may drop below 1 km at times.
- Visibility may drop below 1 km at times, especially over any higher terrain.

Wednesday (midnight to midnight):

- SE to NE before 6 am, then becoming NW. Sustained winds 25-35 km/h to near 6 am, then increasing to 30-40 km/h, thereafter. Gusts to 60 km/h possible, mainly in the afternoon.
- Early morning temperature near 16-17°C around midnight, then climbing to near 23-24°C.
- Morning relative humidity near 100%, falling to 75-80% in the afternoon.
- Showers likely, mainly during the morning, amounts 10 mm or less. Afternoon sun possible.
-

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Makara Fire, Chatham Island.
Shift period: 19th Feb 2018 0700-1900

- Visibility may drop below 1 km at times during the morning, especially over any higher terrain.

Thursday Outlook:

- Wind NW tending W'ly by 6 am then SW near midday and beyond Sustained 25-40 km/h, with gusts to 60 km/h possible to midday. Winds easing near/after 6 pm.
- Temperature near 16-17°C in the morning increasing to near 19 °C in the afternoon.
- Relative humidity decreasing to 75-80% in the afternoon.
- Little or no rain forecast.

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Makara Fire, Chatham Island.
Shift period: 19th Feb 2018 0700-1900

LOG	
Time.	Action

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Incident Action Plan

MAKARA FIRE



1. Approved by Incident Controller:

Name	Signed	Date/Time
Glenn Thompson		19/2/18 19:00



SITUATION REPORT

3. Location

South Western end Chatham Island

4. Vegetation

Tarehinau Scrub / peat /

5. NZTM Grid Ref.

6. Assessment

Vegetation in Tarahinau, (Dracophyllum) bracken and scrub fuels with areas of Peat, started on the 1st Feb and ran until rain stopped the spread of fire late on the night of the 2nd burning a total of around 2440ha, destroying two structures (huts) and burning up to another, both near the southern coastal end of the fire-ground. No further fire spread was experienced during Saturday or Sunday. Small flare ups near the perimeter were common and these were easily contained by helicopters. Thermal camera data gathered on Friday 16th, indicated a limited number of hotspots, these were extinguished over Saturday 17th and Sunday 18th of Feb. Over the weekend crews have cold trailed sectors along Alpha, Bravo, Charlie, Sierra and Xray. Further aerial reconnaissance on Monday the 19th showed a small number of hotspots in the centre of the burn, 400m south of the Sierra sector fire line. These were extinguished by ground crews. 50 mm of rain fell last week.

7. Action taken

Public was evacuated from Waitangi Wharf Owenga Road as a precaution on the evening of 2nd Feb, and were allowed back into the area the following day once rain moderated fire behaviour.

Local machinery has mulched fuel breaks in Sector Zulu/Sierra, for protection of structures.

Two medium helicopters are continuing to support ground crews with transport and bucket work. Ground crews are focusing on blacking out to 50m from the perimeter. All tracks have been marked and helipads cut.

The first Incident Management Team from NZ arrived midday on the 3rd Feb and transitioned on the 10^h. The 3rd IMT started on the 16th of Feb.

8. Factors

Access around fire-ground difficult due to risk of peat Tomo's meaning access restricted to tracks with assistance of local guides.

Obtaining resources that are not available on the island will take 2-4 days to arrive.

Weather – See separate weather / fire behaviour predictions at back of IAP.

Thermal camera monitoring during the second week of the fire revealed a much higher number of hot areas than previously estimated. This led to a revision of the objectives especially the completion time. The last thermal run indicated that crews had been making great progress and there was a limited number of hotspots remaining; the completion date has not been adjusted.

9. Predicted Incident Development

There is a high degree of confidence that further fire spread will be prevented and the objectives below will be achieved.

Rain from ex-Tropical Cyclone Gita over Tuesday, Wednesday and Thursday could bring up to 50mm of rain. Wind gusts up to 60 km/h are possible on Wednesday, especially in the afternoon.

10. Prepared by: GLENN THOMPSON



INCIDENT OBJECTIVES AND STRATEGIES

3. INCIDENT OBJECTIVE(S)/AIM MISSION: (SMART, Specific, Measureable, Achievable Relevant, Time bound)

1. Ensure safety of all responders
2. Protect life of residents
3. Minimise loss of property (especially properties along Waitangi Wharf Owenga Road)
4. Minimise loss of other values. (especially Taiko Trust Ecological area, and Tuuta/Rangaika Reserve)
5. To secure the entire perimeter (estimated 50km long) by extinguishing all burning material within 30m of perimeter by the 28th February

4. STRATEGY/ STRATEGIES: (Plan of Action to meet Incident Objectives)

1. Appoint a dedicated safety officer.
2. Continue to liaise with all effected parties/agencies
3. Dedicate resources to the appropriate flank/sector as weather dictates
4. Treatment of all burning material within 30m of perimeter will be achieved by:
 - Targeted extinguishment of all burning material within 30m of perimeter, detected from a helicopter or thermal camera in areas where canopy does not obscure view of the ground and
 - Cold trail and black out perimeter to a width 30m in areas where the canopy obscures the view of the ground from the air.
 - Monitor sectors not being patrolled by helicopter.

Retain at least one aircraft until perimeter is secure.

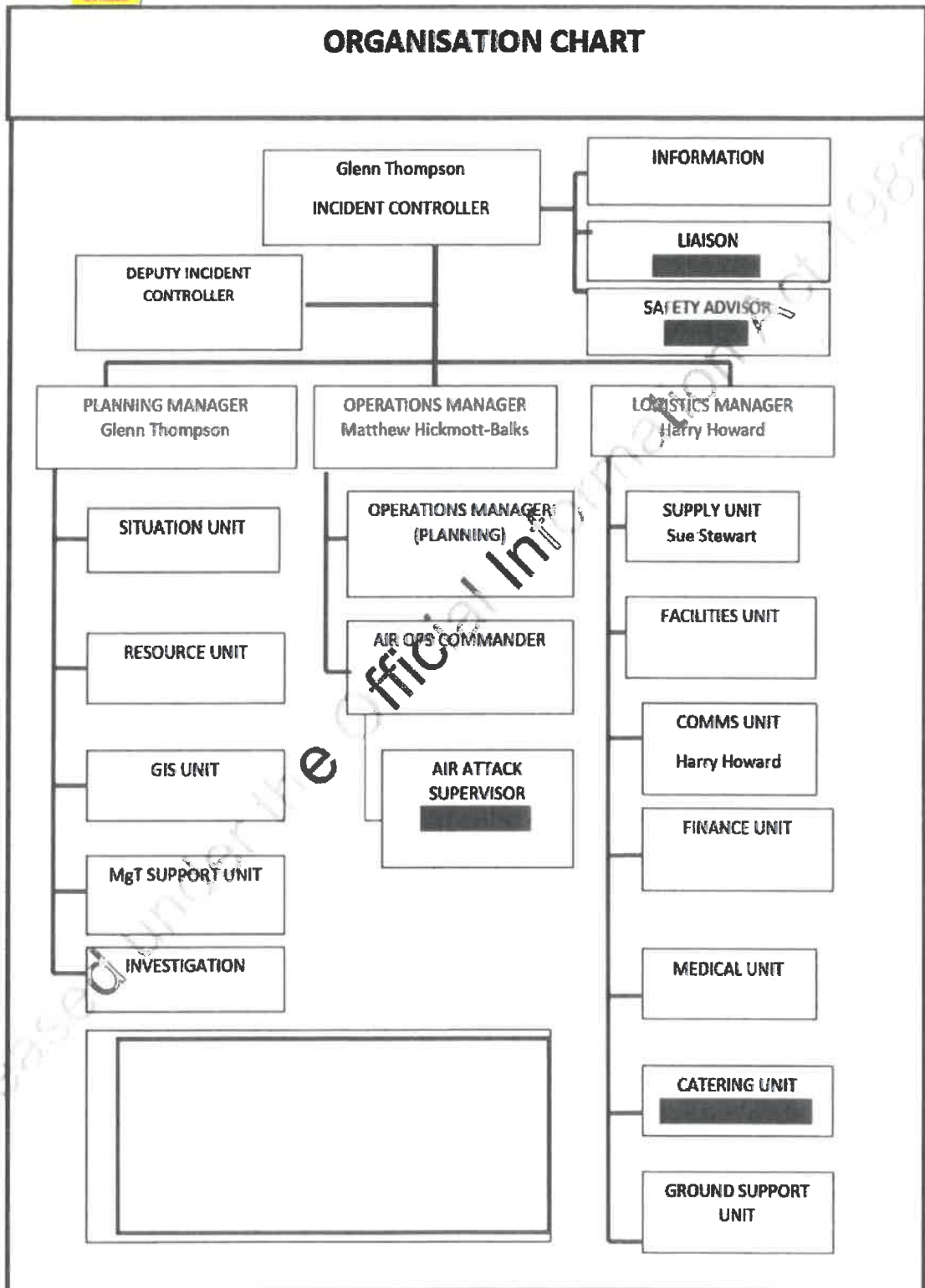
5. Prepared by: Glenn Thompson



ORGANISATION LIST

3. Incident Control		Phone	Cell Phone	Radio Ch
Incident Controller	Glenn Thompson	██████		Fire RPT 1
Safety Officer	██████	██████		Fire RPT 1
Liaison Officer	██████	██████		Fire RPT 1
4. Agency Representative		Phone	Cell Phone	Radio Ch
Lead Agency	FENZ	██████		Fire RPT 1
Agency	Chatham Islands Council	██████		
Agency	Enterprise Trust	██████		
5. Planning/Intel Section		Phone	Cell Phone	Radio Ch
Planning/Intel Manager	Glenn Thompson	██████		Fire RPT 1
Situations Unit				
Resources Unit	Harry Howard	██████		Fire RPT 1
6. Logistics Section		Phone	Cell Phone	Radio Ch
Logistics Manager	Harry Howard	██████		Fire RPT 1
Supply Unit	Sue Stewart (NZ based)		██████	
Catering Unit	██████	██████		
Facilities Unit				
Finance Unit				
Communications Unit				
Medical Unit				
7. Operations Section		Phone	Cell Phone	Radio Ch
Operations Manager	Matthew Hickmott-Baile	██████		Fire RPT 1
Sector Alpha Supervisor				
Sector Zulu Supervisor				
Sector Sierra Supervisor				
Air Attack Supervisor	██████	██████		Fire RPT 1
8. Prepared by:		Glenn Thompson		

ORGANISATION CHART





COMMUNICATIONS PLAN

3. Radio Channels Assigned To				
Assigned To	Function	Channel	Frequency	System
Command	Management	VHF Fire RPT 1		
Tactical	Crew Coms	VHF Fire 1		
Ground to Air	Air Ops	VHF Fire 4		
Air to Air	Pilots	118.1		
Radio channels versus frequency for VHF Fire RPT 1				
Agency	Radio	Channel		Comments
Pumicelands	ICOM	CH 16		
DOC	Base sets	Ch 30		
FENZ	DUAL Band	Zone A CH 15		
6. Other (e.g. email, Sat phone, etc.)				
7. Prepared by:		Harry Howard		

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AIR OPERATIONS PLAN

3. Personnel and Communications

Position	Name	Affiliation	Phone	Radio Channel
Air Div. Commander				
Air Attack Supervisor		GRWC		Fire 4 Fire RPT 1
Air Support Supervisor				
Lead Helicopter Pilot		Southern Helicopters		Fire 4 Fire RPT 1
Lead Fixed-Wing Pilot				

4. Air Resource Assignments

Pilot Name/ Company	Aircraft Type	Reg or Call sign	Assignment	Tactical Freq/Chan	Telephone Numbers
Southern Helicopters	Squirrel B3	IRM	Support ground crews	VHF Fire 4	
Garden City	BK117	HGU		VHF Fire 4	

5. Location of Filling Points/Service Areas

Name	Grid Reference
Staging Area	Various dipping points within fire ground

6. Safety Notes / Hazards / Radio Coverage Limitations

Power lines running East West on Owenga Road. Small Cessna fixed wing operating from airport from Pitt Island. Normal airport operations domestic from Tuuta airfield.

7. Air Operations Special Equip or Service

All Chatham's staff to transfer fuel from their tanker to Helo's following CAA standards. Landowner has confirmed no stock will be in the staging area until operations finish.

8. Prepared By: [Redacted]

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SAFETY PLAN

3. General Safety Points

LACES	Fire Orders	Watch out
<p>L - Lookout(s) A – Anchor Point(s) C – Communication(s) E – Escape Route(s) S – Safety Zone(s)</p>	<ol style="list-style-type: none"> 1. Fight fire aggressively but provide for safety first. 2. Initiate all action based upon current and expected fire behaviour. 3. Recognise current weather conditions and obtain forecasts. 4. Ensure instructions are given and understood. 5. Obtain current information on fire status. 6. Remain in Communication with crew members, your supervisor and adjoining forces. 7. Determine safety zones and escape routes. 8. Establish lookouts in potentially hazardous situations. 9. Retain control at all times. 10. Stay alert, keep calm, think clearly, act decisively. 	<ol style="list-style-type: none"> 1. Fire not scouted and sized up. 2. In country not seen in daylight. 3. Safety zones and escape routes not identified. 4. Unfamiliar with weather and local factors influencing fire behaviour. 5. Uninformed on strategy, tactics and hazards. 6. Instructions and assignments not clear. 7. No communications link with crew members or supervisor. 8. Constructing fireline without safe anchor point. 9. Constructing fireline downhill with fire below. 10. Attempting frontal assault on fire. 11. Unburned fuel between you and the fire. 12. Cannot see main fire, not in contact with anyone who can. 13. On hillside where rolling material can ignite fuel below. 14. Weather is getting hotter and drier. 15. Wind increases and/or changes direction. 16. Getting frequent spot fires across the line. 17. Terrain and fuels make escape to safety zones difficult. 18. Taking a nap near the fire line.

4. Specific Safety Points

Weather – Air Ops, pilots and crews briefed and monitoring for rapid change.
 Fatigue – Hydrate and Crew Boss to monitor, rest periods.
 Slips, Trips and Falls – Crew briefed, made aware “punji sticks”, cliffs, deep water and bogs.
 Air Operations – Crew briefings, pilots and Air Ops monitoring
 Driving – All personnel briefed 60kph speed limit, stock on road.
 Dust – Air crews briefed, ground crews supplied PPE and monitor
 Fuels and Foam – Correct handling and storage, crews briefed. Helos now fuelling at staging
 Radio communications – Air ops to monitor radio
 RLB – RCCNZ notified of Chatham Islands activity
 Livestock wild bulls and pigs – Ground crews briefed
 Non FENZ resources – Operating on the fire ground. Assistance provided, welfare monitored
 Off road driving (4x4 and LUV) – restricted to DOC and other qualified personnel.
 Chainsaws- Only to be operated by unit standard qualified personnel, FULL PPE TO BE USED
 Hygiene- Wash hands before eating and after toilet breaks

5. Prepared By:

Glenn Thompson



Makara Fire, Chatham Island.
Shift period: 20th Feb 2018 0700-1900

SECTOR ASSIGNMENTS

NB- All sectors on one page.

6. Operations Manager		Affiliation	Phone	Radio Ch
Matthew Hickmott-Balks		FENZ	[REDACTED]	Fire RPT 1
7. Resource Allocation				
Sector	Crew / Resource	Leader (s)	# Persons	
A	Monitor by helicopter			
B	Monitor by helicopter			
C	Monitor by helicopter			
D	Monitor by helicopter			
S	Monitor by helicopter			
X	Monitor by helicopter			
Z	Monitor by helicopter			
All sector hotspots	Wellington	Bryce Holcroft	5	
8. Sector Assignment / Special Instructions				
ALL sectors				
<ul style="list-style-type: none"> • Dig out hot areas to cold earth and if available mix with water by poking nozzle right into the ground. • Continuation of extinguishment of all hot spots to a width of 30m from perimeter containment • Develop and flag ground access • Maintain reporting schedules, on commencement of work and twice during each day. • Fireline weather observations at 1000hrs, 1200hrs & 1400hrs. • Use helicopter for water if necessary. • Use helicopter to recon fire line. 				
9. Sector Communications				
Operations Manager.	Matthew Hickmott-Balks	Phone	Radio Ch	
Air Attack Supervisor	[REDACTED]		Fire RPT 1	
Safety Officer	[REDACTED]		Fire 4	
			Fire RPT 1	
10. Prepared By: Glenn Thompson				



MEDICAL PLAN

3. First Aid Station						
Name	Location	Phone/Radio Channel	Paramedics available at Station			
Point 106	Staging	Fire RPT 1	First Aiders			
Crew Leaders	Various sectors	Fire RPT 1	First Aiders			
4. Transportation						
Ambulance Service	Address	Phone/Radio Channel	Paramedics available with Ambulance			
Air Operations (Emergency Evac only)						
St John Ambulance	1 Hospital Road		Yes			
WestPac Rescue			Yes			
Life Flight						
5. Hospitals						
Heli			Travel Time	Burn		
Hospital Name	Address	Phone	Road	Air	Unit	Pad
Chatham's Medical Centre	1 Hospital Road		20 min	10 min	No	No
6. Special Emergency Procedures						
Medical Centre utilised to stabilise patients Life Flight dispatched from Wellington Check with Chatham's Air for Aircraft Movements STAFF WITH KNOWN MEDICAL CONDITIONS: Advise Logistics Manager						
7. Prepared by Logistics						
Manager / Safety Officer:]			Harry Howard			
8. Reviewed by Incident Controller:			Glenn Thompson			

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WEATHER AND FIRE BEHAVIOUR PREDICTION										
		Temp	RH	Rain mm	Wind Km/hr	Wind Dir	FFMC	ISI	Grass EROS 75% cured m/hr	Scrub EROS m/hr
Tuesday	20/02	20	85	20	25	SE	43	1	1	17 E
Wednesday	21/02	23	75	10	30	NW	62	2	49	402 E
Thursday	22/02	19	75	0	40	NW	71	5	198	1202 E
Prepared By: Glenn Thompson										

Updated forecast – 19 February 4:20 pm NZDT

Rest of Today:

- WNW wind gradually turning SW during the evening. Sustained 25-35 km/h through about 6 pm then decreasing to 15-25 km/h after 9 pm. Gusts to 50 km/h possible, then dropping below 40 km/h after 8 pm.
- Temperature dropping to 17°C by midnight.
- Relative humidity increasing to near 95% by midnight.
- No rainfall expected.
- Visibility expected to stay above 1 km.

Tuesday (midnight to midnight):

- SW wind sustained 15 km/h or less, becoming SE-E after 4 am. After 9 am sustained wind becoming E and increasing to 20-30 km/h, then increasing to 25-35 km/h in the afternoon. Gusts to 45-50 km/h in the afternoon and evening.
- Early morning temperature near 15°C before sunrise, increasing to near 20°C in the afternoon.
- Relative humidity near 100% in the morning, decreasing to 85-90% at times.
- Periods of rain expected, with rainfall amounts of 15-30 mm possible.
- Visibility may drop below 1 km at times in the afternoon and evening, especially over any higher terrain.



Wednesday (midnight to midnight):

- SE to NE before 6 am, then becoming NW. Sustained winds 25-35 km/h to near 6 am, then increasing to 30-40 km/h, thereafter. Gusts to 60 km/h possible, mainly in the afternoon.
- Early morning temperature near 16-17°C around midnight, then climbing to near 23-24°C.
- Morning relative humidity near 100%, falling to 75-80% in the afternoon.
- Showers likely, mainly during the morning, amounts 10 mm or less. Afternoon sun possible.
- Visibility may drop below 1 km at times during the morning, especially over any higher terrain.

Thursday Outlook:

- Wind NW tending W'ly by 6 am then SW near midday and beyond. Sustained 25-40 km/h, with gusts to 60 km/h possible to midday. Winds easing near/after 6 pm.
- Temperature near 16-17°C in the morning increasing to near 19 °C in the afternoon.
- Relative humidity decreasing to 75-80% in the afternoon.
- Little or no rain expected.

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Makara Fire, Chatham Island.
 Shift period: 20th Feb 2018 0700-1900

LOG	
Time.	Action

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Makara Fire, Chatham Island.
Shift period: 21th Feb 2018 0700-1900

Incident Action Plan

MAKARA FIRE



1. Approved by Incident Controller:

Name

Signed

Date/Time

Glenn Thompson

19/2/18 19:00



SITUATION REPORT

3. Location South Western end Chatham Island	4. Vegetation Tarehinau Scrub / peat /	5. NZTM Grid Ref.
6. Assessment Vegetation in Tarahinau, (Dracophyllum) bracken and scrub fuels with areas of Peat, started on the 1 st Feb and ran until rain stopped the spread of fire late on the night of the 2 nd burning a total of around 2440ha, destroying two structures (huts) and burning up to another, both near the southern coastal end of the fire-ground. No further fire spread was experienced during Saturday or Sunday. Small flare ups near the perimeter were common and these were easily contained by helicopters. Thermal camera data gathered on Friday 16 th , indicated a limited number of hotspots, these were extinguished over Saturday 17 th and Sunday 18 th of Feb. Over the weekend crews have cold trailed sectors along Alpha, Bravo, Charlie, Sierra and Xray. Further aerial reconnaissance on Monday the 19 th showed a small number of hotspots in the centre of the burn 100m south of the Sierra sector fire line. These were extinguished by ground crews. 50 mm of rain fell last week.		
7. Action taken Public was evacuated from Waitangi Wharf Owenga Road as a precaution on the evening of 2 nd Feb, and were allowed back into the area the following day once rain moderated fire behaviour. Local machinery has mulched fuel breaks in Sector Zulu/Sierra, for protection of structures. Two medium helicopters are continuing to support ground crews with transport and bucket work. Ground crews are focusing on blacking out to 50m from the perimeter. All tracks have been marked and helipads cut. The first Incident Management Team from NZ arrived midday on the 3 rd Feb and transitioned on the 10 ^h . The 3 rd IMT started on the 16 th of Feb.		
8. Factors Access around fire-ground difficult due to risk of peat Tomo's meaning access restricted to tracks with assistance of local guides. Obtaining resources that are not available on the island will take 2-4 days to arrive. Weather – See separate weather / fire behaviour predictions at back of IAP. Thermal camera monitoring during the second week of the fire revealed a much higher number of hot areas than previously estimated. This led to a revision of the objectives especially the completion time. The last thermal run indicated that crews had been making great progress and there was a limited number of hotspots remaining; the completion date has not been adjusted.		
9. Predicted Incident Development There is a high degree of confidence that further fire spread will be prevented and the objectives below will be achieved. Rain from ex-Tropical Cyclone Gita over Tuesday, Wednesday and Thursday could bring up to 50mm of rain. Wind gusts up to 60 km/h are possible on Wednesday, especially in the afternoon.		
10. Prepared by: GLENN THOMPSON		

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INCIDENT OBJECTIVES AND STRATEGIES

3. INCIDENT OBJECTIVE(S)/AIM MISSION: (SMART, Specific, Measurable, Achievable Relevant, Time bound)

1. Ensure safety of all responders
2. Protect life of residents
3. Minimise loss of property (especially properties along Waitangi Wharf Owenga Road)
4. Minimise loss of other values. (especially Taiko Trust Ecological area, and Tuuta/Rangaika Reserve)
5. To secure the entire perimeter (estimated 50km long) by extinguishing all burning material within 30m of perimeter by the 28th February

4. STRATEGY/ STRATEGIES: (Plan of Action to meet Incident Objectives)

1. Appoint a dedicated safety officer.
2. Continue to liaise with all effected parties/agencies
3. Dedicate resources to the appropriate flank/sector as weather dictates
4. Treatment of all burning material within 30m of perimeter will be achieved by:
 - Targeted extinguishment of all burning material within 30m of perimeter, detected from a helicopter or thermal camera in areas where canopy does not obscure view of the ground and
 - Cold trail and black out perimeter to a width 30m in areas where the canopy obscures the view of the ground from the air.
 - Monitor sectors not being patrolled by helicopter

Retain at least one aircraft until perimeter is secure.

5. Prepared by: Glenn Thompson



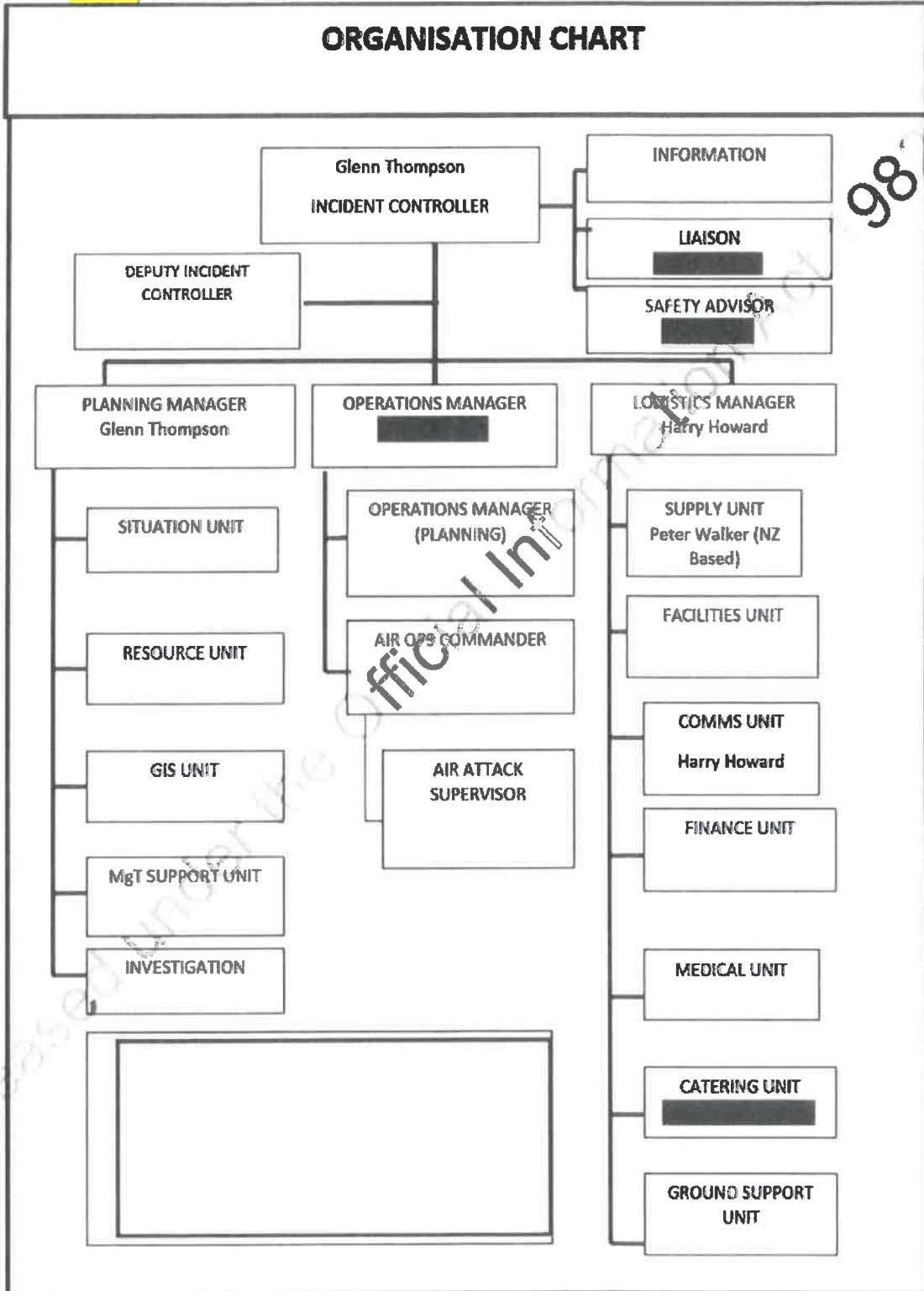
Makara Fire, Chatham Island.
Shift period: 21st Feb 2018 0700-1900

ORGANISATION LIST

3. Incident Control				Phone	Cell Phone	Radio Ch
Incident Controller	Glenn Thompson					Fire RPT 1
Safety Officer						Fire RPT 1
Liaison Officer						Fire RPT 1
4. Agency Representative				Phone	Cell Phone	Radio Ch
Lead Agency	FENZ					Fire RPT 1
Agency	Chatham Islands Council					
Agency	Enterprise Trust					
5. Planning/Intel Section				Phone	Cell Phone	Radio Ch
Planning/Intel Manager	Glenn Thompson					Fire RPT 1
Situations Unit						
Resources Unit	Harry Howard					Fire RPT 1
6. Logistics Section				Phone	Cell Phone	Radio Ch
Logistics Manager	Harry Howard					Fire RPT 1
Supply Unit	Peter Walker (NZ based)					
Catering Unit						
Facilities Unit						
Finance Unit						
Communications Unit						
Medical Unit						
7. Operations Section				Phone	Cell Phone	Radio Ch
Operations Manager						Fire RPT 1
Sector Alpha Supervisor						
Sector Zulu Supervisor						
Sector Sierra Supervisor						
Air Attack Supervisor						
8. Prepared by:				Glenn Thompson		

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ORGANISATION CHART



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COMMUNICATIONS PLAN				
3. Radio Channels				
Assigned To	Function	Channel	Frequency	System
Command	Management	VHF Fire RPT 1		
Tactical	Crew Coms	VHF Fire 1		
Ground to Air	Air Ops	VHF Fire 4		
Air to Air	Pilots	118.1		
Radio channels versus frequency for VHF Fire RPT 1				
Agency	Radio	Channel	Comments	
DOC	Base sets	Ch 30		
FENZ	DUAL Band	Zone A CH 15		
6. Other (e.g. email, Sat phone, etc.)				
7. Prepared by:		Harry Howard		

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Makara Fire, Chatham Island.
Shift period: 21st Feb 2018 0700-1900

AIR OPERATIONS PLAN

3. Personnel and Communications

Position	Name	Affiliation	Phone	Radio Chan
Air Div. Commander				
Air Attack Supervisor	[REDACTED]	GRWC		Fire 4 Fire RPT 1
Air Support Supervisor				
Lead Helicopter Pilot	[REDACTED]	Southern Helicopters		Fire 4 Fire RPT 1
Lead Fixed-Wing Pilot				

4. Air Resource Assignments

Pilot Name/ Company	Aircraft Type	Reg or Call sign	Assignment	Tactical Freq/Chan	Telephone Numbers
[REDACTED] - Southern Helicopters	Squirrel IB3	IRM	Support ground crews	VHF Fire 4	
[REDACTED] - Garden City	BK117	HGU		VHF Fire 4	

5. Location of Filling Points/Service Areas

Name	Grid Reference
Staging Area	Various dipping points within fire ground

6. Safety Notes / Hazards / Radio Coverage Limitations

Power lines running East West on Owenga Road. Small Cessna fixed wing operating from airport from Pitt Island. Normal airport operations domestic from Tuuta airfield.

7. Air Operations Special Equip or Service

All Chatham's staff to transfer fuel from their tanker to Helo's following CAA standards. Landowner has confirmed no stock will be in the staging area until operations finish.

8. Prepared By: [REDACTED]



SAFETY PLAN

3. General Safety Points

LACES	Fire Orders	Watch out
<p>L - Lookout(s)</p> <p>A – Anchor Point(s)</p> <p>C – Communication(s)</p> <p>E – Escape Route(s)</p> <p>S – Safety Zone(s)</p>	<ol style="list-style-type: none"> 1. Fight fire aggressively but provide for safety first. 2. Initiate all action based upon current and expected fire behaviour. 3. Recognise current weather conditions and obtain forecasts. 4. Ensure instructions are given and understood. 5. Obtain current information on fire status. 6. Remain in Communication with crew members, your supervisor and adjoining forces. 7. Determine safety zones and escape routes. 8. Establish lookouts in potentially hazardous situations. 9. Retain control at all times. 10. Stay alert, keep calm, think clearly, act decisively. 	<ol style="list-style-type: none"> 1. Fire not scouted and sized up. 2. In country not seen in daylight. 3. Safety zones and escape routes not identified. 4. Unfamiliar with weather and local factors influencing fire behaviour. 5. Uninformed in strategy, tactics and hazards. 6. Instructions and assignments not clear. 7. No communications link with crew members or supervisor. 8. Constructing fireline without safe anchor point. 9. Constructing fireline downhill with fire below. 10. Attempting frontal assault on fire. 11. Unburned fuel between you and the fire. 12. Cannot see main fire, not in contact with anyone who can. 13. On hillside where rolling material can ignite fuel below. 14. Weather is getting hotter and drier. 15. Wind increases and/or changes direction. 16. Getting frequent spot fires across the line. 17. Terrain and fuels make escape to safety zones difficult. 18. Taking a nap near the fire line.

4. Specific Safety Points

Weather – Air Ops, pilots and crews briefed and monitoring for rapid change.
 Fatigue – Hydrate and Crew Boss to monitor, rest periods.
 Slips, Trips and Falls – Crew briefed, made aware "punji sticks", cliffs, deep water and bogs.
 Air Operations – Crew briefings, pilots and Air Ops monitoring
 Driving – All personnel briefed 60kph speed limit, stock on road.
 Dust – Air crews briefed, ground crews supplied PPE and monitor
 Fuels and Foam – Correct handling and storage, crews briefed. Helicopters now fuelling at staging area.
 Poor communications – Air ops to monitor radio
 PLB – RCCNZ notified of Chatham Islands activity
 Livestock wild bulls and pigs – Ground crews briefed
 Non FENZ resources – Operating on the fire ground. Assistance provided, welfare monitored
 Off road driving (4x4 and LUV) – restricted to DOC and other qualified personnel.
 Chainsaws- Only to be operated by unit standard qualified personnel, FULL PPE TO BE USED
 Hygiene- Wash hands before eating and after toilet breaks

5. Prepared By:

Glenn Thompson

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SECTOR ASSIGNMENTS

NB- All sectors on one page.

6. Operations Manager	Affiliation	Phone	Radio Ch
██████████	FENZ	██████████	Fire RPT 1

7. Resource Allocation			
Sector	Crew / Resource	Leader (s)	# Persons
A	Monitor by helicopter		
B	Monitor by helicopter		
C	Monitor by helicopter		
D	Monitor by helicopter		
S	Monitor by helicopter		
X	Monitor by helicopter		
Z	Monitor by helicopter		
All sector hotspots	Wellington	Bryce Holcroft	5

- 8. Sector Assignment / Special Instructions**
ALL sectors
- Dig out hot areas to cold earth and if available mix with water by poking nozzle right into the ground.
 - Continuation of extinguishment of all hot spots identified through aerial reconnaissance.
 - Develop and flag ground access
 - Maintain reporting schedules, on commencement of work and twice during each day.
 - Fire line weather observations at 1000hrs, 1200hrs & 1400hrs.
 - Use helicopter for water if necessary.
 - Use helicopter to recon fire line.

9. Sector Communications	Phone	Radio Ch
Operations Manager. ██████████		Fire RPT 1 & Fire 4
Attack Supervisor		
Safety Officer ██████████		Fire RPT 1

10. Prepared By: Matthew Hickmott-Balks

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MEDICAL PLAN

3. First Aid Station						
Name	Location	Phone/Radio Channel	Paramedics available at Station			
Point 106	Staging	Fire RPT 1	First Aiders			
Crew Leaders	Various sectors	Fire RPT 1	First Aiders			
4. Transportation						
Ambulance Service		Address	Phone/Radio Channel	Paramedics available with Ambulance		
Air Operations (Emergency Evac only)						
St John Ambulance	1 Hospital Road			Yes		
WestPac Rescue				Yes		
Life Flight						
5. Hospitals						
Heli		Travel Time			Burn	
Hospital Name	Address	Phone	Road	Air	Unit	Pad
Chatham's Medical Centre	1 Hospital Road		20 min	10 min	No	No
6. Special Emergency Procedures						
<p>Medical Centre utilised to stabilise patients Life Flight dispatched from Wellington Check with Chatham's Air for Aircraft Movements</p> <p>STAFF WITH KNOWN MEDICAL CONDITIONS: Advise Logistics Manager</p>						
7. Prepared by Logistics						
Manager / Safety Officer:]		Harry Howard [REDACTED]				
8. Reviewed by Incident						
Controller:		Glenn Thompson				

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WEATHER AND FIRE BEHAVIOUR PREDICTION										
		Temp	RH	Rain mm	Wind Km/hr	Wind Dir	FFMC	ISI	Grass EROS 65% cured m/hr	Scrub EROS m/hr
Wednesday	21/02	23	75	10	35	NE	63	2.9	84	618 E
Thursday	22/02	20	80	0	35	NW	81	7.6	376	1899 E
Friday	23/02	19	75	0	30	SW	70	2.8	82	606 E

Prepared By: Glenn Thompson

Updated forecast – 20 February 4:15 pm NZDT

Rest of Today:

- E wind sustained 30-40 km/h, tending NE late. Gusts to 45-50 km/h.
- Temperature falling to near 16°C by midnight.
- Relative humidity increasing to near 100% by midnight.
- Periods of rain developing, with rainfall amounts of 10-20 mm possible.
- Visibility may drop below 1 km at times in the afternoon and evening, especially over any higher terrain.

Wednesday (midnight to midnight):

- E to NE before 2-3 am, then becoming N and eventually NW by late morning. Sustained winds 25-35 km/h to near 6 pm, then decreasing to 20-25 km/h in the evening. Gusts to 55 km/h possible through early afternoon, then slowly decreasing.
- Early morning temperature near 16-17°C around midnight, then climbing to near 20°C.
- Morning relative humidity near 100%, falling to 75% in the afternoon. Showers likely, mainly during the early morning, with amounts of 10 mm or less. Clearing by the afternoon.
- Visibility may drop below 1 km at times during the early morning, especially over any higher terrain.

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Makara Fire, Chatham Island.
Shift period: 21th Feb 2018 0700-1900

Thursday (midnight to midnight):

- Wind NW tending W by 6 am then SW after midday. Sustained 25-35 km/h, with gusts to 60 km/h possible, then 50 km/h in the evening.
- Temperature near 16-17°C in the morning increasing to near 19-20°C in the afternoon.
- Relatively humidity decreasing to 75-80% in the afternoon.
- Chance of a couple evening showers.

Friday outlook:

- Wind SW sustained 25-35 km/h with gusts to 50 km/h early, then increasing to 60-65 km/h in the afternoon.
- Temperature near 15°C in the morning increasing to near 19°C in the afternoon.
- Relatively humidity decreasing to 75% in the afternoon.
- Scattered showers possible.

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Makara Fire, Chatham Island.
Shift period: 21th Feb 2018 0700-1900

LOG	
Time.	Action

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Incident Action Plan

MAKARA FIRE



1. Approved by Incident Controller:

Name

Signed

Date/Time

Glenn Thompson

21/2/18 18:00



SITUATION REPORT

3. Location South Western end Chatham Island	4. Vegetation Tarehinau Scrub / peat /	5. NZTM Grid Ref.
6. Assessment Vegetation in Tarahinau, (Dracophyllum) bracken and scrub fuels with areas of Peat, started on the 1 st Feb and ran until rain stopped the spread of fire late on the night of the 2 nd burning a total of around 2440ha, destroying two structures (huts) and burning up to another, both near the southern coastal end of the fire-ground. No further fire spread was experienced during Saturday or Sunday. Small flare ups near the perimeter were common and these were easily contained by helicopters. Thermal camera data gathered on Friday 16 th , indicated a limited number of hotspots, these were extinguished over Saturday 17 th and Sunday 18 th of Feb. Over the weekend crews have cold trailed sectors along Alpha, Bravo, Charlie, Sierra and Xray. Further aerial reconnaissance on Monday the 19 th showed a small number of hotspots in the centre of the burn 400m south of the Sierra sector fire line. These were extinguished by ground crews. On Wednesday the 21 st of February 2018 aerial reconnaissance did not pick up any further hotspots. 20mm of rain has fallen this week.		
7. Action taken Public was evacuated from Waitangi Wharf Owenga Road as a precaution on the evening of 2nd Feb, and were allowed back into the area the following day once rain moderated fire behaviour. Local machinery has mulched fuel breaks in Sector Zulu/Sierra, for protection of structures. Two medium helicopters are continuing to support ground crews with transport and bucket work. Ground crews are focusing on blacking out to 30m from the perimeter. All tracks have been marked and helipads cut. The first Incident Management Team from NZ arrived midday on the 3rd Feb and transitioned on the 10 th . The 3 rd IMT started on the 16 th of Feb.		
8. Factors Access around fire-ground difficult due to risk of peat Tomo's meaning access restricted to tracks with assistance of local guides. Obtaining resources that are not available on the island will take 2-4 days to arrive. Weather – See separate weather / fire behaviour predictions at back of IAP. Thermal camera monitoring during the second week of the fire revealed a much higher number of hot areas than previously estimated. On Wednesday the 21 st of February the fire perimeter was fully contained using ground crews and aircraft. Incident objectives have been changed to reflect the ongoing fire ground monitoring that will occur over the next two weeks.		
9. Predicted Incident Development Containment of the entire fire perimeter (estimated at 50km long) by extinguishing all burning material within 30m of the perimeter by the 28 th of February, has been achieved. On-going monitoring of the fire will continue to occur over the next two weeks by Fire and Emergency NZ personnel and DOC Staff. Ground crew are now recommissioning firefighting equipment and aircraft are being prepared for the journey back to New Zealand.		
10. Prepared by: GLENN THOMPSON		



INCIDENT OBJECTIVES AND STRATEGIES

3. INCIDENT OBJECTIVE(S)/AIM MISSION: (SMART, Specific, Measureable, Achievable Relevant, Time bound)

1. Ensure safety of all responders
2. Protect life of residents
3. Minimise loss of property (especially properties along Waitangi Wharf Owenga Road)
4. Minimise loss of other values. (especially Taiko Trust Ecological area, and Tuuta/Rangaika Reserve)
5. To continue to monitor the fire ground until the 16th of March 2018.

4. STRATEGY/ STRATEGIES: (Plan of Action to meet Incident Objectives)

1. Appoint a Safety Officer for the recommissioning of firefighting resources.
2. Continue to liaise with all effected parties/agencies on a regular basis.
3. Monitor the fire ground using ground observation

5. Prepared by: Glenn Thompson

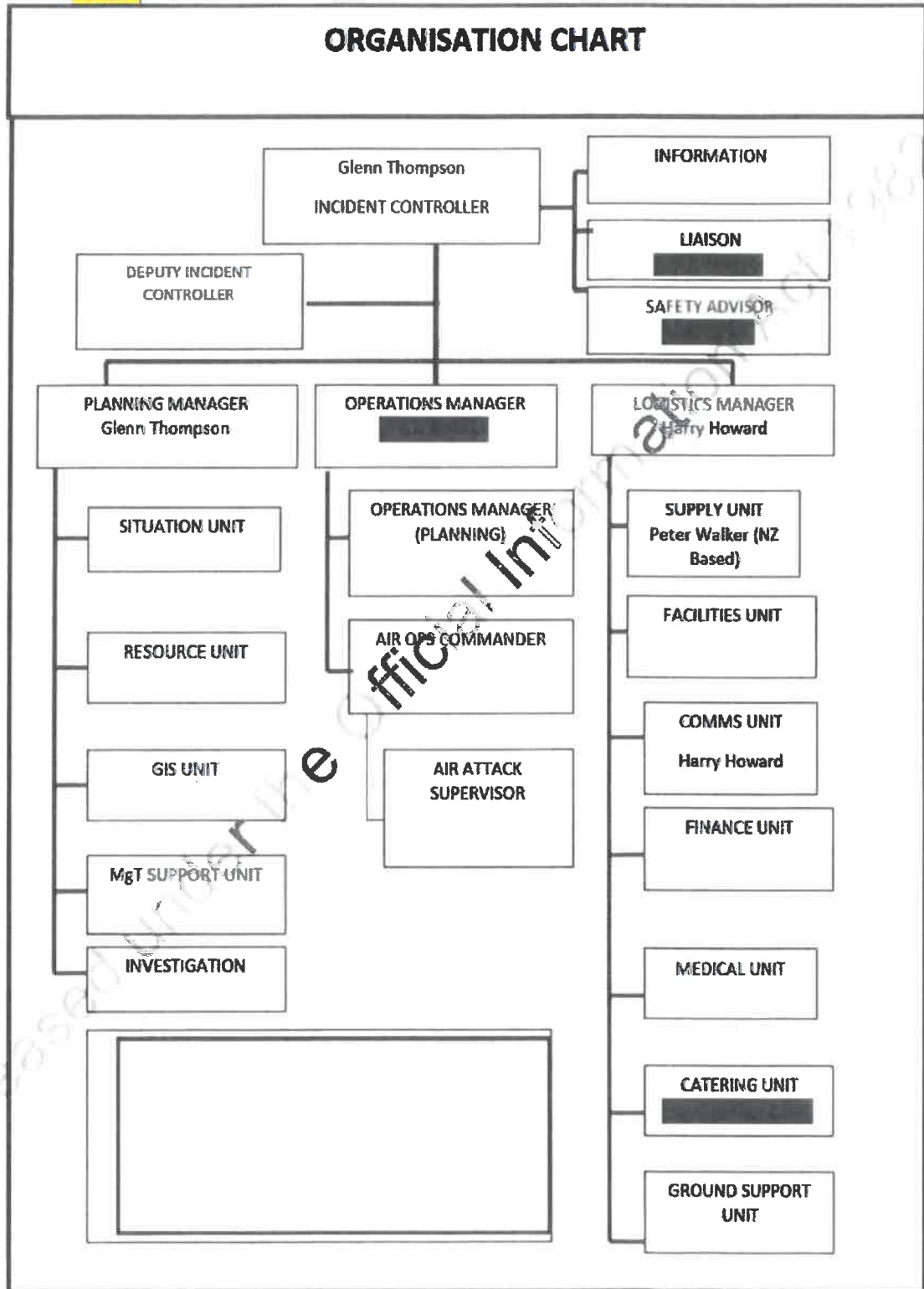
Released under the Official Information Act 1982



ORGANISATION LIST

3. Incident Control		Phone	Cell Phone	Radio Ch
Incident Controller	Glenn Thompson	██████		Fire RPT 1
Safety Officer	██████	██████		Fire RPT 1
Liaison Officer	██████	██████		Fire RPT 1
4. Agency Representative		Phone	Cell Phone	Radio Ch
Lead Agency	FENZ	██████		Fire RPT 1
Agency	Chatham Islands Council	██████		
Agency	Enterprise Trust	██████		
5. Planning/Intel Section		Phone	Cell Phone	Radio Ch
Planning/Intel Manager	Glenn Thompson	██████		Fire RPT 1
Situations Unit				
Resources Unit	Harry Howard	██████		Fire RPT 1
6. Logistics Section		Phone	Cell Phone	Radio Ch
Logistics Manager	Harry Howard	██████		Fire RPT 1
Supply Unit	Peter Walker (NZ based)		██████	
Catering Unit	██████	██████		
Facilities Unit				
Finance Unit				
Communications Unit				
Medical Unit				
7. Operations Section		Phone	Cell Phone	Radio Ch
Operations Manager	██████	██████		Fire RPT 1
Sector Alpha Supervisor				
Sector Zulu Supervisor				
Sector Sierra Supervisor				
Air Attack Supervisor				
8. Prepared by:		Glenn Thompson		

ORGANISATION CHART





Makara Fire, Chatham Island.
Shift period: 22th Feb 2018 0700-1900

COMMUNICATIONS PLAN				
3. Radio Channels Assigned To				
Assigned To	Function	Channel	Frequency	System
Command	Management	VHF Fire 1		
Tactical	Crew Coms	VHF Fire 1		
Radio channels versus frequency for VHF Fire RPT 1				
Agency	Radio	Channel	Comments	
DOC	Base sets	Ch 30		
FENZ	DUAL Band	Zone A CH 15		
6. Other (e.g. email, Sat phone, etc.)				
7. Prepared by: Harry Howard				

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Makara Fire, Chatham Island.
Shift period: 22th Feb 2018 0700-1900

AIR OPERATIONS PLAN

3. Personnel and Communications

Position	Name	Affiliation	Phone	Radio Chan
Air Div. Commander				
Air Attack Supervisor				
Air Support Supervisor				
Lead Helicopter Pilot				
Lead Fixed-Wing Pilot				

4. Air Resource Assignments

Pilot Name/ Company	Aircraft Type	Reg or Call sign	Assignment	Tactical Freq/Chan	Telephone Numbers

5. Location of Filling Points/Service Areas

Name	Grid Reference

6. Safety Notes / Hazards / Radio Coverage Limitations

7. Air Operations Special Equipment or Service

Helicopters are being prepared by the pilots for the return to New Zealand. Crews will provide assistance if required by pilots.

8. Prepared By: [REDACTED]

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SAFETY PLAN

3. General Safety Points

LACES	Fire Orders	Watch out
<p>L - Lookout(s)</p> <p>A – Anchor Point(s)</p> <p>C – Communication(s)</p> <p>E – Escape Route(s)</p> <p>S – Safety Zone(s)</p>	<ol style="list-style-type: none"> 1. Fight fire aggressively but provide for safety first. 2. Initiate all action based upon current and expected fire behaviour. 3. Recognise current weather conditions and obtain forecasts. 4. Ensure instructions are given and understood. 5. Obtain current information on fire status. 6. Remain in Communication with crew members, your superior and adjoining forces. 7. Determine safety zones and escape routes. 8. Establish lookouts in potentially hazardous situations. 9. Retain control at all times. 10. Stay alert, keep calm, think clearly, act decisively. 	<ol style="list-style-type: none"> 1. Fire not scouted and sized up. 2. In country not seen in daylight. 3. Safety zones and escape routes not identified. 4. Unfamiliar with weather and local factors influencing fire behaviour. 5. Uninformed on strategy, tactics and hazards. 6. Instructions and assignments not clear. 7. No communications link with crew members or supervisor. 8. Constructing fireline without safe anchor point. 9. Constructing fireline downhill with fire below. 10. Attempting frontal assault on fire. 11. Unburned fuel between you and the fire. 12. Cannot see main fire, not in contact with anyone who can. 13. On hillside where rolling material can ignite fuel below. 14. Weather is getting hotter and drier. 15. Wind increases and/or changes direction. 16. Getting frequent spot fires across the line. 17. Terrain and fuels make escape to safety zones difficult. 18. Taking a nap near the fire line.

4. Specific Safety Points

- Weather – Crews briefed and monitoring for rapid change.
- Fatigue – Hydrate and Crew Boss to monitor, rest periods.
- Slips, Trips and Falls – Crew briefed, made aware "punji sticks", cliffs, deep water and bogs.
- Driving – All personnel briefed 60kph speed limit, stock on road.
- Dust – Air Crews briefed, ground crews supplied PPE and monitor
- Fuels and Foam – Correct handling and storage, crews briefed. Helicopters now fuelling at staging area.
- Poor communications – IMT to monitor radio
- RLB – RCCNZ notified of Chatham Islands activity
- Livestock wild bulls and pigs – Ground crews briefed
- Off road driving (4x4 and LUV) – restricted to DOC and other qualified personnel.
- Hygiene- Wash hands before eating and after toilet breaks

5. Prepared By:

Glenn Thompson



SECTOR ASSIGNMENTS

NB- All sectors on one page.

6. Operations Manager	Affiliation	Phone	Radio Ch
██████████	FENZ	██████████	Fire 1

7. Resource Allocation			
Sector	Crew / Resource	Leader (s)	# Persons
A	Monitor by ground observation		
B	Monitor by ground observation		
C	Monitor by ground observation		
D	Monitor by ground observation		
S	Monitor by ground observation		
X	Monitor by ground observation		
Z	Monitor by ground observation		
All sector hotspots	Wellington	Bryce Holcroft	5

8. Sector Assignment / Special instructions
ALL sectors

- Dig out hot areas to cold earth and if available mix with water by poking nozzle right into the ground.
- Continuation of extinguishment of all hot spots identified through ground based reconnaissance.
- Develop and flag ground access
- Maintain reporting schedules, on commencement of work.

9. Sector Communications	Phone	Radio Ch
Operations Manager. ██████████		Fire 1
Air Attack Supervisor		
Safety Officer ██████████		Fire 1

10. Prepared By: ██████████



MEDICAL PLAN						
3. First Aid Station						
Name	Location	Phone/Radio Channel	Paramedics available at Station			
Point 106	Staging	Fire 1	First Aiders			
Crew Leaders	Various sectors	Fire 1	First Aiders			
4. Transportation						
Ambulance Service		Address	Phone/Radio Channel	Paramedics available with Ambulance		
Air Operations (Emergency Evac only)						
St John Ambulance		1 Hospital Road		Yes		
WestPac Rescue				Yes		
Life Flight						
5. Hospitals						
Heli		Travel Time			Burn	
Hospital Name	Address	Phone	Road	Air	Unit	Pad
Chatham's Medical Centre	1 Hospital Road		20 min	10 min	No	No
6. Special Emergency Procedures:						
<p>Medical Centre utilised to stabilise patients Life Flight dispatched from Wellington Check with Chatham's Air for Aircraft Movements</p> <p>STAFF WITH KNOWN MEDICAL CONDITIONS: Advise Logistics Manager</p>						
7. Prepared by Logistics						
Manager / Safety Officer:]		Harry Howard [
8. Reviewed by Incident						
Controller:		Glenn Thompson				

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WEATHER AND FIRE BEHAVIOUR PREDICTION

		Temp	RH	Rain mm	Wind Km/hr	Wind Dir	FFMC	ISI	Grass EROS 65% cured m/hr	Scrub EROS m/hr
Thursday	22/02	21	75	5	30	NW	67	2.7	73	553 E
Friday	23/02	20	80	5	30	SW	61	2.0	46	378 E
Saturday	24/02	19	75	0	30	SW	61	2.8	82	606 E

Prepared By: Glenn Thompson

Updated forecast – 21 February 4:15 pm NZDT

Rest of today:

- NW 15-25 km/h. Gusts up to 40 km/h through the evening, then decreasing tonight.
- Temperature falling to near 17°C by midnight.
- Relative humidity increasing to around 100% by midnight.
- No rainfall expected.

Thursday (midnight to midnight):

- Wind NNW tending W late in the morning, then SW after 5:00 pm. Sustained 20-30 km/h in the morning, then 25-40 km/h in the afternoon and evening with gusts to 60 km/h possible, decreasing in the evening.
- Temperature near 16-17°C in the morning increasing to near 21°C in the afternoon.
- Relative humidity near 95% early, decreasing to 70-75% in the afternoon.
- Chance of a couple showers early in the morning and again in the evening. Total rainfall 5 mm or less.
- Slight chance for visibility less than 1km before 8:00 am.

Friday (midnight to midnight):

- Wind SW sustained 25-35 km/h with gusts to 60 km/h early in the afternoon and evening.
- Temperature near 15°C in the morning increasing to near 20°C in the afternoon.
- Relative humidity near 95% early, decreasing to 75% in the afternoon.
- Scattered showers possible in the afternoon and evening. Total rainfall 5 mm or less.

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Makara Fire, Chatham Island.
Shift period: 22th Feb 2018 0700-1900

Saturday outlook:

- Wind SW sustained 25-35 km/h with gusts 60-65 km/h.
- Temperature near 14°C in the morning increasing to near 19°C in the afternoon.
- Relative humidity near 95% early, decreasing to 70-75% in the afternoon.
- Isolated showers possible, primarily in the morning.

Released under the Official Information Act 1982



Makara Fire, Chatham Island.
Shift period: 22th Feb 2018 0700-1900

LOG	
Time.	Action

Released under the Official Information Act 1982

Incident Action Plan

MAKARA FIRE



1. Approved by Incident Controller:

Name	Signed	Date/Time
Glenn Thompson		21/2/18 18:00



SITUATION REPORT

3. Location South Western end Chatham Island	4. Vegetation Tarehinau Scrub / peat /	5. NZTM Grid Ref.
6. Assessment Vegetation in Tarahinau, (Dracophyllum) bracken and scrub fuels with areas of Peat, started on the 1 st Feb and ran until rain stopped the spread of fire late on the night of the 2 nd burning a total of around 2440ha, destroying two structures (huts) and burning up to another, both near the southern coastal end of the fire-ground. No further fire spread was experienced during Saturday or Sunday. Small flare ups near the perimeter were common and these were easily contained by helicopters. Thermal camera data gathered on Friday 16 th , indicated a limited number of hotspots, these were extinguished over Saturday 17 th and Sunday 18 th of Feb. Over the weekend crews have cold trailed sectors along Alpha, Bravo, Charlie, Sierra and Xray. Further aerial reconnaissance on Monday the 19 th showed a small number of hotspots in the centre of the burn, 100m south of the Sierra sector fire line. These were extinguished by ground crews. On Wednesday the 21 st of February 2018 aerial reconnaissance did not pick up any further hotspots. 20mm of rain has fallen this week.		
7. Action taken Public was evacuated from Waitangi Wharf Owenga Road as a precaution on the evening of 2 nd Feb, and were allowed back into the area the following day once rain moderated fire behaviour. Local machinery has mulched fuel breaks in Sector Zulu/Sierra, for protection of structures. Two medium helicopters are continuing to support ground crews with transport and bucket work. Ground crews are focusing on blacking out to 30m from the perimeter. All tracks have been marked and helipads cut. The first Incident Management Team from NZ arrived midday on the 3 rd Feb and transitioned on the 10 th . The 3 rd IMT started on the 16 th of Feb.		
8. Factors Access around fire-ground difficult due to risk of peat Tomo's meaning access restricted to tracks with assistance of local guides. Obtaining resources that are not available on the island will take 2-4 days to arrive. Weather – See separate weather / fire behaviour predictions at back of IAP. Thermal camera monitoring during the second week of the fire revealed a much higher number of hot areas than previously estimated. On Wednesday the 21 st of February the fire perimeter was fully contained using ground crews and aircraft. Incident objectives have been changed to reflect the ongoing fire ground monitoring that will occur over the next two weeks.		
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10. Prepared by: GLENN THOMPSON		



INCIDENT OBJECTIVES AND STRATEGIES

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1. Ensure safety of all responders
2. Protect life of residents
3. Minimise loss of property (especially properties along Waitangi Wharf Owenga Road)
4. Minimise loss of other values. (especially Taiko Trust Ecological area, and Tuuta/Rangaika Reserve)
5. To continue to monitor the fire ground until the 16th of March 2018.

4. STRATEGY/ STRATEGIES: (Plan of Action to meet Incident Objectives)

1. Appoint a Safety Officer for the recommissioning of firefighting resources.
2. Continue to liaise with all effected parties/agencies on a regular basis.
3. Monitor the fire ground using ground observation.

5. Prepared by: Glenn Thompson

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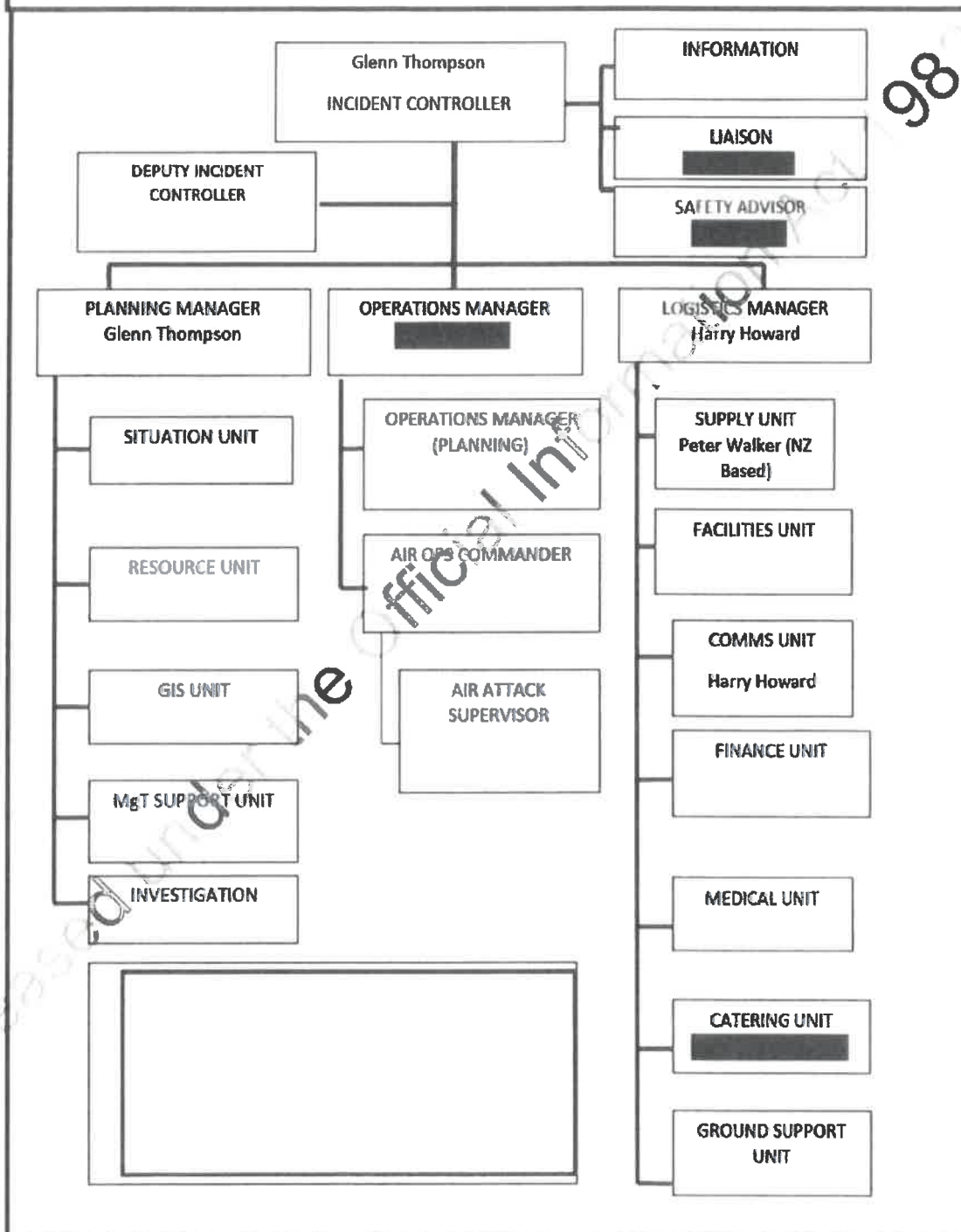


ORGANISATION LIST

3. Incident Control		Phone	Cell Phone	Radio Ch
Incident Controller	Glenn Thompson	██████		Fire RPT 1
Safety Officer	██████	██████		Fire RPT 1
Liaison Officer	██████	██████		Fire RPT 1
4. Agency Representative		Phone	Cell Phone	Radio Ch
Lead Agency	FENZ	██████		Fire RPT 1
Agency	Chatham Islands Council	██████		
Agency	Enterprise Trust	██████		
5. Planning/Intel Section		Phone	Cell Phone	Radio Ch
Planning/Intel Manager	Glenn Thompson	██████		Fire RPT 1
Situations Unit				
Resources Unit	Harry Howard	██████		Fire RPT 1
6. Logistics Section		Phone	Cell Phone	Radio Ch
Logistics Manager	Harry Howard	██████		Fire RPT 1
Supply Unit	Pete Walker (NZ based)		██████	
Catering Unit	██████	██████		
Facilities Unit				
Finance Unit				
Communications Unit				
Medical Unit				
7. Operations Section		Phone	Cell Phone	Radio Ch
Operations Manager	██████	██████		Fire RPT 1
Sector Alpha Supervisor				
Sector Zulu Supervisor				
Sector Sierra Supervisor				
Air Attack Supervisor				
8. Prepared by:		Glenn Thompson		

Released under the Official Information Act 1982

ORGANISATION CHART





COMMUNICATIONS PLAN

3. Radio Channels Assigned To				
Assigned To	Function	Channel	Frequency	System
Command	Management	VHF Fire 1		
Tactical	Crew Coms	VHF Fire 1		
Radio channels versus frequency for VHF Fire RPT 1				
Agency	Radio	Channel	Comments	
DOC	Base sets	Ch 30		
FENZ	DUAL Band	Zone A CH 15		
6. Other (e.g. email, Sat phone, etc)				
7. Prepared by:				
		Harry Howard		

Released under the Official Information Act 1982



AIR OPERATIONS PLAN

3. Personnel and Communications

Position	Name	Affiliation	Phone	Radio Chan
Air Div. Commander				
Air Attack Supervisor				
Air Support Supervisor				
Lead Helicopter Pilot				
Lead Fixed-Wing Pilot				

4. Air Resource Assignments

Pilot Name/ Company	Aircraft Type	Reg or Call sign	Assignment	Tactical Freq/Chan	Telephone Numbers

5. Location of Filling Points/Service Areas

Name	Grid Reference

6. Safety Notes / Hazards / Radio Coverage Limitations

7. Air Operations Special Equip or Service

Helicopters are being prepared by the pilots for the return to New Zealand. Crews will provide assistance if required by pilots.

8. Prepared By: [REDACTED]

Official Information Act 1982

Released under the Official Information Act 1982

SAFETY PLAN

3. General Safety Points

LACES	Fire Orders	Watch outs
<p>L - Lookout(s) A - Anchor Point(s) C - Communication(s) E - Escape Route(s) S - Safety Zone(s)</p>	<ol style="list-style-type: none"> 1. Fight fire aggressively but provide for safety first. 2. Initiate all action based upon current and expected fire behaviour. 3. Recognise current weather conditions and obtain forecasts. 4. Ensure instructions are given and understood. 5. Obtain current information on fire status. 6. Remain in Communication with crew members, your supervisor and adjoining forces. 7. Determine safety zones and escape routes. 8. Establish lookouts in potentially hazardous situations. 9. Retain control at all times. 10. Stay alert, keep calm, think clearly, act decisively. 	<ol style="list-style-type: none"> 1. Fire not scouted and sized up. 2. In country not seen in daylight. 3. Safety zones and escape routes not identified. 4. Unfamiliar with weather and local factors influencing fire behaviour. 5. Uninformed on strategy, tactics and hazards. 6. Instructions and assignments not clear. 7. No communications link with crew members or supervisor. 8. Constructing fireline without safe anchor point. 9. Constructing fireline downhill with fire below. 10. Attempting frontal assault on fire. 11. Unburned fuel between you and the fire. 12. Cannot see main fire, not in contact with anyone who can. 13. On hillside where rolling material can ignite fuel below. 14. Weather is getting hotter and drier. 15. Wind increases and/or changes direction. 16. Getting frequent spot fires across the line. 17. Terrain and fuels make escape to safety zones difficult. 18. Taking a nap near the fire line.

4. Specific Safety Points

Weather – Crews briefed and monitoring for rapid change.
 Fatigue – Hydrate and Crew Boss to monitor, rest periods.
 Slips, Trips and Falls – Crew briefed, made aware "punji sticks", cliffs, deep water and bogs.
 Driving – All personnel briefed 60kph speed limit, stock on road.
 Dust – All Crews briefed, ground crews supplied PPE and monitor
 Fuels and Foam – Correct handling and storage, crews briefed. Helicopters now fuelling at staging area.
 Radio communications – IMT to monitor radio
 RLB – RCCNZ notified of Chatham Islands activity
 Livestock wild bulls and pigs – Ground crews briefed
 Off road driving (4x4 and LUV) – restricted to DOC and other qualified personnel.
 Hygiene- Wash hands before eating and after toilet breaks

5. Prepared By:

Glenn Thompson



SECTOR ASSIGNMENTS

NB- All sectors on one page.

6. Operations Manager		Affiliation	Phone	Radio Ch
[REDACTED]		FENZ	[REDACTED]	Fire 1
7. Resource Allocation				
Sector	Crew / Resource	Leader (s)	# Persons	
A	Monitor by ground observation			
B	Monitor by ground observation			
C	Monitor by ground observation			
D	Monitor by ground observation			
S	Monitor by ground observation			
X	Monitor by ground observation			
Z	Monitor by ground observation			
All sector hotspots	Wellington	Bryce Holcroft	5	
8. Sector Assignment / Special Instructions				
ALL sectors				
<ul style="list-style-type: none"> Dig out hot areas to cold earth and if available mix with water by poking nozzle right into the ground. Continuation of extinguishment of all hot spots identified through ground based reconnaissance. Develop and flag ground access Maintain reporting schedules, on commencement of work. 				
9. Sector Communications				
Operations Manager.	[REDACTED]	Phone	Radio Ch	
Air Attack Supervisor	[REDACTED]		Fire 1	
Safety Officer	[REDACTED]		Fire 1	
10. Prepared By: [REDACTED]				



MEDICAL PLAN							
3. First Aid Station							
Name	Location	Phone/Radio Channel	Paramedics available at Station				
Point 106	Staging	Fire 1	First Aiders				
Crew Leaders	Various sectors	Fire 1	First Aiders				
4. Transportation							
Ambulance Service		Address	Phone/Radio Channel	Paramedics available with Ambulance			
Air Operations (Emergency Evac only)							
St John Ambulance		1 Hospital Road		Yes			
WestPac Rescue				Yes			
Life Flight							
5. Hospitals							
Heli		Travel Time			Burn		
Hospital Name	Address	Phone	Road	Air	Unit	Pad	
Chatham's Medical Centre	1 Hospital Road		20 min	10 min	No	No	
6. Special Emergency Procedures							
<p>Medical Centre utilised to stabilise patients Life Flight dispatched from Wellington Check with Chatham's Air for Aircraft Movements</p> <p>STAFF WITH KNOWN MEDICAL CONDITIONS: Advise Logistics Manager</p>							
7. Prepared by Logistics							
Manager / Safety Officer:]		Harry Howard [REDACTED]					
8. Reviewed by Incident							
Controller:		Glenn Thompson					

1982

Released under the Official Information Act 1982



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Prepared By: Glenn Thompson										

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- Relative humidity increasing to around 100% by midnight.
- No rainfall expected.

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- Chance of a couple showers early in the morning and again in the evening. Total rainfall 5 mm or less.
- Slight chance for visibility less than 1km before 8:00 am.

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- Relative humidity near 95% early, decreasing to 75% in the afternoon.
- Scattered showers possible in the afternoon and evening. Total rainfall 5 mm or less.

Released under Official Information Act



Makara Fire, Chatham Island.
Shift period: 22th Feb 2018 0700-1900

Saturday outlook:

- Wind SW sustained 25-35 km/h with gusts 60-65 km/h.
- Temperature near 14°C in the morning increasing to near 19°C in the afternoon.
- Relative humidity near 95% early, decreasing to 70-75% in the afternoon.
- Isolated showers possible, primarily in the morning.

Released under the Official Information Act 1982



LOG	
Time.	Action

Released under the Official Information Act 1982

