

10. Prepared by: RORY RENWICK

# **INCIDENT OBJECTIVES AND STRATEGIES**

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

General Ensure safety of all responders

Protect life of residents

Minimise loss of property (especially properties along Waitangi Wharf Owenga Road)
Minimise loss of other values. (especially Taiko Trust Ecological area, and Tuuta/Rangaika Rese

Specific objectives

To secure the entire perimeter by extinguishing all burning material within 20m of perimeter by the 28th February

Then patrol on days of elevated fire danger, until significant rain reduces drought codes.

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

Treatment of all burning material within 20m of perimeter will be achieved by

- Targeted extinguishment of all burning material within 20m of perimeter that can be detected from a helicopter or drone by thermal camera in areas where canopy does not obscure view of the ground and
- Cold trail and black out perimeter to a width 20m in Sierra Sector and areas where the canopy obscures the view of the ground from the air.

Retain at least one aircraft until perimeter is secure.

5 Prepared by: Rory Renwick



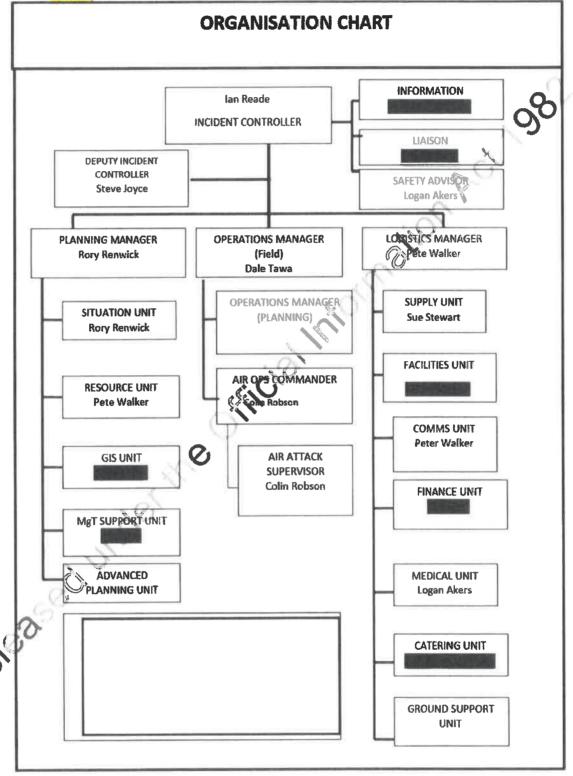
	ORGANISATION	LIST		
3. Incident Control		Phone	Cell Phone Radio	Ch O
Incident Controller	Ian Reade		Di	0
Deputy IC	Steve Joyce		D	oc s
Information Officer		3.6	( ) b	oc 5
Safety Officer	Logan Akers		D	oc 5
Liaison Officer		- Triber	D	oc 5
4. Agency Representati		Photo	Cell Phone Radio	
Lead Agency	FENZ	4	Di	oc 5
Agency	MCDEM			
Agency	Enterprise Trust			
Agency				
5. Planning/Intel Section	ci Cl	Phone	Cell Phone	Radio Ch
Planning/Intel Manager	Rory Renvision			Doc 5
Situations Unit	Rory Renwix k			
Resources Unit	Fele Walker			Doc 5
Management Support		TO-Sec.		Doc 5
Information Unit Technical Specialists Unit				
6. Logistics Section		Phone	Cell Phone	Radio Ch
Logistics Manager	Pete Walker			Doc 5
Supply Unit	Sue Stewart (NZ based)		the str	
Catering Unit		NAME		Doc 5
Facilities Unit	NT SELEN			
Finance Unit	Sue Stewart	D) (a)		
Communications Unit	Peter Walker			
Medical Unit	Logan Akers			Doc 5



7. Operations Section		Phone	Cell Phone	Radio Ch
Operations Manager				Doc 5
Dep Ops / Dep Plan Manager		18.50		Doc 5
Sector Alpha Supervisor	Dale Tawa			_Q-
Sector Zulu Supervisor	Dale Tawa			
Sector Sierra Supervisor	Dale Tawa		THE.	
Air Attack Supervisor	Colin Robinson		10	Doc 5
Air Support Supervisor			Y	
8. Prepared by:		lan Reade		

eleased under the







	CON	IMUNICATION	IS PLAN	
3. Radio Channels Assigned To	Function	Channel	Frequency	. 5
Command	Management	Doc 5		×
Tactical	Tactics	Doc 15	9	P.
Ground to Air	Air Ops	Fire 4	0	
Air to Air	Pilots	119,1	10	
			20	
4. Telephone			1	
Assigned To	Landline	Cellphone	Fax	Comm
		.0		
		0.0		
6. Other (e.g. email, Began unit available fo phone redundancy	Satphone, etc)			
FENZ SAT Phone	1 //			
	0°			
7. Prepared by:	).	Peter Walker		



# **AIR OPERATIONS PLAN**

3. Personnel and Comm	unications			
Position	Name	Affiliation	Phone	Redio Chan
Air Div. Commander	Colin Robson	FENZ -		Fire 4
		Wellington		DOC 5
Air Attack Supervisor				- 6
Air Support Supervisor				1
Lead Helicopter Pilot	N 1775	Southern		Fire 4
		Helicopters	: 0	DOC 5
Lead Fixed-Wing Pilot			20	

# 4. Air Resource Assignments

Pilot Name/ Company	Aircraf t Type	Reg or Callsign	Assignment	Tactical Freq/Chan	Telephone Numbers
- Southern Helicopters	Squirrel B3	IMR	Sectors A,Z, Redeployment of ground	Fire 4	
- Garden City		HGU	crews for situcture protection on activation of trigger points	Fire 4	

# 5. Location of Filling Points/Service Areas

Name

**Grid Reference** 

Chatham Airport

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 Power lines running East West on Owenga Road. Small Cessna like uning open airport from Philipsiand. Normal airport operations domestic from Tuuta airfield.

0600 thempal flight with

# 7. Air Operations Special Equip or Service

All Chatham's staff to transfer fuel from their tanker to Helo's following CAA standards.

8. Prepared By: Colin Robson





# SAFETY PLAN

#### 3. General Safety Points

#### **LACES**

- L Lookout(s)
- A Anchor Point(s)
- € Communication(s)
- E Escape Route(s)
- 5 Safety Zone(s)

#### **Fire Orders**

- Fight fire aggressively but provide for safety first.
- Initiate all action based upon current and expected fire behaviour.
- Recognise current weather conditions and obtain forecasts.
- Ensure instructions are given and understood.
- Obtain current information on
- 6. Remain in Communication with crew members, your supp and adjoining forces.
- Determine safety agrees and escape routes
- Establish sookdure in potentially hazardoul situations.
- Retainsontrol at all times.
   Stay Mart, keep calm, think dearly, act decisively.

#### Watchout

- Fire not scouted and sized up.
- In country not seen in baylight. Safety zones and er cap a routes not identified.
- Unfamiliar with tweetner and local factors influencing his behaviour.

- Uninformed in strategy, tactics and hazards.
  Instructions and assignments not clear.
  No communications link with crew members or somewisor.
- Constructing fireline without safe anchor point. Sonstructing firetine would on fire. Constructing fireline downhill with fire below.
- 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
- 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

Fatigue - Crew Boss to monitor

Slips and Folls - Trees briefings

Air Operations -Frew briefings, pilots and Air Ops monitoring

Gew boss and pilots to monitor - Rapid changes, electrical storms (hypo, hyper)

personnel briefed

Mr Crews advised – ground crews supplied PPE and monitor

and Foam - Correct handling and storage - crews briefed

or communications – particularly Alpha and Sierra – air ops to monitor radio

PLB - RCCNZ notified of Chatham Islands activity

Peat Bog – ground crews briefed

Livestock / Bees - 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.

#### 5. Prepared By:

Logan Akers





Pickup



**Dale Tawa** 

# SECTOR ASSIGNMENT

3. Sector	4. Description		5. Division Assigned
Alpha	Direct attack on the Western Flank		97
6. Sector Supervisor	Affiliation	Phone	Radjo Ch
Dale Tawa	FENZ	ti tikkou	DOC 5

7. Resources Assigned this period **Transport** Drop-of Required Point/time

Point/time # Persons Resource/Crew Leader 1800 Van Wellington +5 1800

# 8. Sector Assignment / Special Instructions

- Hutt Crew working in southern part of sector under canopy Wellington working in central part of sector under canopy
- Continuation of perimeter containme
- Establish drop points and GPS
- Develop and flag ground access
- Maintain reporting schedule
- etermined by fire behaviour Re-deployment to other
- Home safe

9. Sector Communication		Phone	Radio C
	All I		
Operations Manager	Dale Tawa		DOC5
Air Attack Supervisor	Colin Robinson		Fire 4
Safety Officer	Logan Akers		DOC5
40. Prepared By:	Dale Tawa		
- 30			
250			
2,0			
50			
50			
2050			



#### **SECTOR ASSIGNMENT** 3. Sector 4. Description 5. Division Ase Zulu Eastern Flank Phone 6. Sector Supervisor **Affiliation FENZ** Dale Tawa 7. Resources Assigned this period Pickup **Transport** # Persons Required Point/time Resource/Crew Leader 2x2 Seater **DOC Crew** LUV 8. Sector Assignment / Special Instructions Air attack on small perimeter smoke Reactive deployment to this secto the same as Sierra) in event of increased fire activity Awatapu land owners operating thern part of Zulu sector ing fire break in western sector to high point **DOC to GPS track access** feature 205 in grid sq DOC identify suitable oints within fireground and clear Heli pads if required and provide co-ordinal DOC to route ma Call access for LUV within fireground boundaries and map. 9. Sector Communications Radio Ch Phone Operations Managel DOC5 Dale Tawa Air Attack Super Colin Robinson Fire 4 Safety Officer Logan Akers DOC5 Prepared By: Dale Tawa



#### **SECTOR ASSIGNMENT** 5. Division Assigned 3. Sector 4. Description **Northern Perimeter of Fire** Radio Ch **Affiliation** Phone 6. Sector Supervisor DOC 5 Dale Tawa **FENZ** 7. Resources Assigned this period Pickup **Transport** Point/time Required Resource/Crew Leader # Persons 8. Sector Assignment / Special Instructions Continuation of perimeter containment to a width of 10 meters Establish drop points and provide details to GIS Develop ground access and provide datails to GIS • Maintain reporting schedules Provide recommendations to Operations for future tasking and resourcing NLT Redeployment to other sectors determined by fire behaviour Home safe Trigger point activation will require reassignment following predetermined response plan 9. Sector Communications Radio Ch Phone DOC5 Dale Tawa Operations Manager. Fire 4 ttack Supervisor **Colin Robinson** DOC5 **Safety Officer** Logan Akers Dale Tawa 10. Prepared By:





# SECTOR ASSIGNMENT

3. Sector	4. Description	5. Division Assigna
	Incident Within Incident Response Plan	Safety

Logan Akers FENZ 3050033 DOC

7. Resources Assigned this period

Resource/Crew	Leader	# Persons	Transport Required	Drop-off Point/time	Pickup Point/time
Air Ops	Colin Robson	1 x Squirrel 1 x 83	1	10,	
<b>Ground Crews</b>	Dale Tawa	2 x 5-man crew	AC		
Waitangi Fire Brigade	Steve Joyce	2 x Appliances	1/2		

# 8. Sector Assignment / Special Instructions

# **Injury Accident Contingency**

- Provide First Aid
- Pass Priority message requesting assistance
- Senior person "ON SCENE" assumes responsibility for the "New" incident
- Advice Incident Controller of secondary incident.
- Most appropriate Section person "OFF SCENE" assumes responsibility for the "Existing" incident
- Formal K45 returning sector command at conclusion of "New' incident and resumption of normal operations.

# Aircraft Incident Contingency

- Second aircraft immediately tracks to "Last Known Location" Confirm status and location of effected aircraft.
- If necessary, Pass Priority Massage before landing to render immediate assistance or diverting to pick up nearest Fire Crew resources and returning to scene.

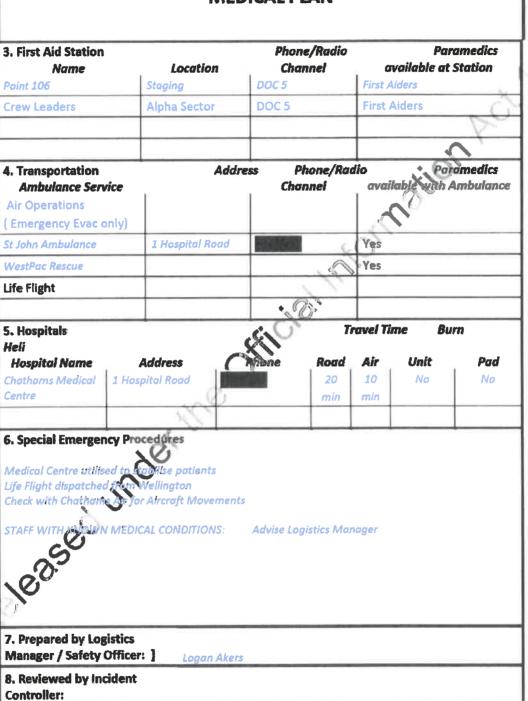
Advice Incident Controller of aircraft incident.







# **MEDICAL PLAN**







# WEATHER AND FIRE BEHAVIOUR PREDICTION

		Temp	RH	Rain	Wind Km/hr	Wind Dir	FFMC	ISi	Grass EROS 75%cured m/hr	Scrub EROS m/hr
Friday	9/02 16:00	22	60	0	18	NE	85	4.5	350 >>	1260
Saturday	10/02 16:00	23	60	0	26	NE	85	7.8	650	1950
Sunday	11/02 1600	20	79	12	37	NE	56	23%	Wegligible	370

Prepared By: Rory Renwick

#### Updated forecast - 8 February 4:15 pm NZDT

#### Friday (midnight to midnight):

- N to NE wind sustained 15 km/h or less to hear tham, increasing to 10-20 km/h by midday and beyond. Gusts 30-35 km/h possible.
- Early morning minimum temperature 13, 4 degrees, increasing to a maximum temperature of 21-22 degrees.
- Early morning maximum humidity near 95%, falling to 65% in the afternoon, then increasing to near 90% by midnight.
- Slight chance of an evening wer, but any rainfall would be minimal.

# Saturday (midnight to midnight):

- NE wind sustained 10-25 km/h, tending E-NE near/after midday and increasing to 15-30 km/h.
- Early morning minimum temperature 14-15, increasing to a maximum temperature 21-22 degrees.
- Early morning maximum humidity near 95%, falling to 65-70% in the afternoon, then increasing to new 90% by midnight.
- Glance of a couple late-day showers, with amounts less than 3 mm.

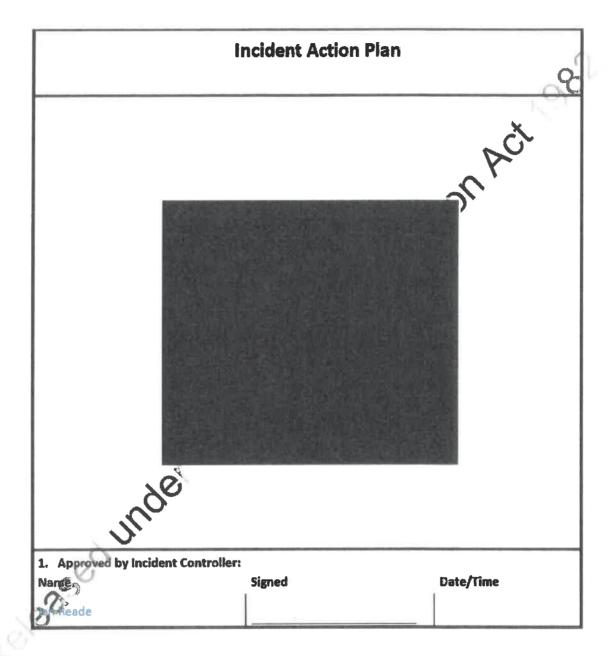
# Syllook for Sunday:

- NE wind sustained 25-40 km/h and gusts up to 50 km/h.
- Early morning minimum temperature 17-18, increasing to a maximum temperature 21-22 degrees.
- Maximum relative humidity 95-100% (largely, but not entirely, dependent on showers materialising).
- Threat for showers.



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# SITUATION REPORT

3. Location

4. Vegetation

5. NZTM Grid Ref.

South Western end Chatham Island

Tarehinau Scrub / peat /

#### 6. Assessment

Vegetation in Tarahinau scrub fuels with areas of Peat, started on the 1<sup>st</sup> Feb and ran until rain stopped the spread of fire late on the night of the 2<sup>nd</sup> burning a total of around 2440ha are stroying stopped the spread of fire late on the night of the 2<sup>nd</sup> burning a total of around 2440ha distroying one structure and burning up to another, both near the southern coastal end of the fire-ground. No further fire spread was experienced during Saturday Sunday. On Monday 4th and Wednesday the 5th there were a few flare ups near the perimeter but crews and helicopters were able to contain these. Thermal flights on Wednesday-Thursday saw numerous small hot species on or near the these. Thermal flights on Wednesday- Thursday saw numerous small hot s perimeter on Sierra and some larger hot areas in other sectors.

#### 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 fain moderated fire behaviour Local machinery has mulched fuel breaks in Sector Zulu/Serra, for protection of structures.

Local machinery has mulched fuel breaks in Sector for protection of structures.

Main focus of ground crews has been Sierra sect

Two medium helicopters carrying out bucket workers number of visible smokers around the perimeter and d crew transport on the 4th Feb - reducing the sussing on the currently inaccessible areas number of visible smokers around the perir along the cliff face in Zulu.

A local crew has done considerable morping up around structures at the southern end of Zulu, have been provided with some PPE, and communications so they can call for assistance in the up around structures at the southern end of Zulu, and event of an incident.

Partial National Incident Management Team from NZ arrived midday on the 3rd Feb to assist with incident management, and will be replaced by a regional team at the beginning of this shift.

#### 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 image camera monitoring has revealed a much higher number of hot areas than previously estimated. This has led to a revision of the objectives especially the completion time.

### 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.

10. Prepared by: RORY RENWICK





# INCIDENT OBJECTIVES AND STRATEGIES

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

General Ensure safety of all responders

Minimise loss of property (especially properties along Waitangi Wharf Owenga Road)
Minimise loss of other values. (especially Taiko Trust Ecological area, and Tuuta/Rangaika Reserve)

Then partial neter by the

Then patrol on days of elevated fire danger, until significant rain reduces of

## 4. STRATEGY/ STRATEGIES: (Plan of Action to meet incident Objecti

Treatment of all burning material within 20m of perimeter

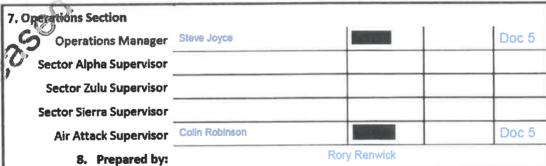
- Targeted extinguishment of all burning detected from a helicopter or drone by thermal era in areas where canopy does not obscure view of the ground and
- Cold trail and black out perim idth 20m in Sierra Sector and areas where the canopy obscures the view of

Retain at least one aircraft until pe

5. Frepared by: Rory Renwick

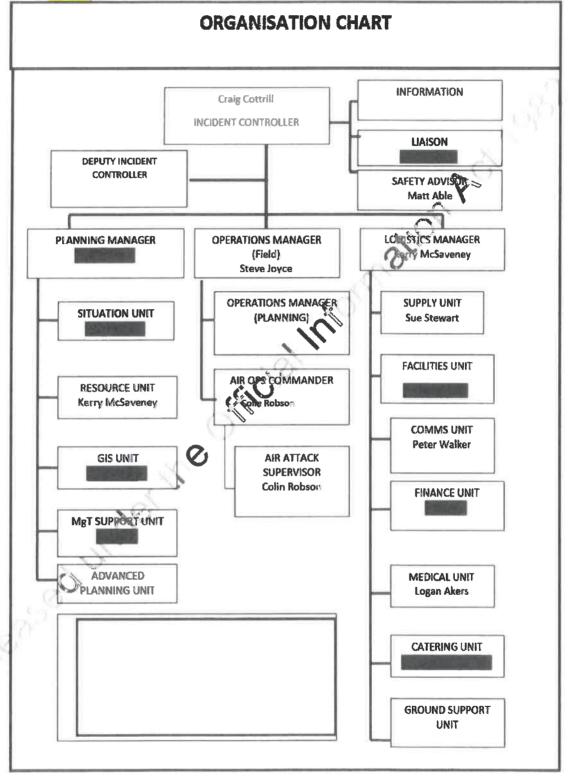


	ORGANISATION	LIST		
3. Incident Control		Phone	Cell Phone Rac	lio Ch
Incident Controller	Craig Cottrill			Dog 5
Safety Officer	Maft Able			Doc é
Liaison Officer	MERCHANIC TO BE		. (	Goc 5
4. Agency Representati	ve	Phone	Cell Phone Rac	fio Ch
Lead Agency	FENZ		0	Doc 5
Agency	MCDEM		7	
Agency	Enterprise Trust			
5. Planning/Intel Section		Phone	Cell Phone	Radio Ch
Planning/Intel Manager				Doc 5
Situations Unit	PERSONAL AND AND AND ADDRESS OF THE PERSONAL PROPERTY.			
Resources Unit	Kerry McSaveney			Doc 5
6. Logistics Section	"Cl	Phone	Cell Phon	e Radio Ch
Logistics Manager	Kerry McSaverby			Doc 5
Supply Unit	Sue Stewin (NZ based)		District Co.	
Catering Unit	<b>CONTRACTOR</b>	1-4		Doc 5
Facilities Unit				
Finance Unit			Mrs. 1	
Communications Unit	Kerry McSaveney			
Medical Unit	Matt Able	0.50		Doc 5











	сомм	UNICATIONS	PLAN	0
3. Radio Channels Assigned To	Function	Channel	Frequency	System
Command Tactical	Management Tactics	Doc 5	(4)	0
Ground to Air	Air Ops	Fire 4		
Air to Air	Pilots	119.1	200	
4. Telephone Assigned To	Landline	Cell phone	ах	Comments
		9		
6. Other (e.g. email, Began unit available phone redundancy				
FENZ SAT Phone				
7. Prepared by:	Pet	er Walker		

7. Prepared b



# **AIR OPERATIONS PLAN**

3. Personnel and Comm	unications			(
Position	Name	Affiliation	Phone	Radio Cha
Air Div. Commander	Colin Robson	FENZ - Wellington		Fire 4
Air Attack Supervisor				- G
Air Support Supervisor				b-
Lead Helicopter Pilot	W.S.	Southern Helicopters	٠.٥	Fire 4 DOC 5
Lead Fixed-Wing Pilot			25	
4. Air Resource Assignm	ents	5	(1)	

Pilot Name/ Company	Aircraf t Type	Reg or Call sign	Assignment	Freq/Chan	Telephone Numbers
- Southern Helicopters - Garden City	Squirre I B3	IMR HGU	Sectors A.Z. Redeployment of ground creats for structure protection on activation of trigger points	Fire 4	

5. Location of Filling Points/Service Areas

Name

**Grid Reference** 

Chatham Airport

Various dipping points within fire ground

# 6. Safety Notes / Hazards / Radio Coverage Limitations

Power lines all ring East West on Owenga Road. Small Cessna fixed wing operating from airport from Pitt Island Normal airport operations domestic from Tuuta airfield. 0600 thermal flight with

# 7. Air Operations Special Equip or Service

All Chetham's staff to transfer fuel from their tanker to Helo's following CAA standards.

8. Prepared By: Colin Robson



# SAFETY PLAN

### 3. General Safety Points

#### LACES

#### L - Lookout(s)

- A Anchor Point(s)
- € Communication(s)
- E Escape Route(s)
- 5 Safety Zone(s)

#### **Fire Orders**

- 1. Fight fire aggressively but provide for safety first.
- Initiate all action based upon current and expected fire hehaviour.
- 3. Recognise current weather conditions and obtain forecasts.
- 4. Ensure instructions are given and understood.
- Obtain current information on fire status.
- Remain in Communication with crew members, your super and adjoining forces.
- Determine safety pones and escape routes
- Establish took uts in potentially hazardour situations.
- Retails ontrol at all times.
   Stay birt, keep calm, think Clearly, act decisively

#### Watch out

- Fire not scouted and sizad up.
- In country not seen in thy in ht.
  Safety zones and excap routes not identified.
- Unfamiliar with washier and local factors influencing fire buraviour.

  Uninformed in strategy, tactics and hazards.

  Instructions and assignments not clear.

  No communications link with crew members or

- visor.
- constructing fireline without safe anchor point. Constructing fireline downhill with fire below. 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 helow
- 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

Fatigue - Crew Boss to monitor

Slips and Falls Crew briefings
Air Operations Crew briefings, pilots and Air Ops monitoring

Weather Crew boss and pilots to monitor - Rapid changes, electrical storms (hypo, hyper) Driving - Ai personnel briefed

Dust Air Crews advised - ground crews supplied PPE and monitor

Fuels and Foam - Correct handling and storage - crews briefed

Poor communications - particularly Alpha and Sierra - air ops to monitor radio

PLB - RCCNZ notified of Chatham Islands activity

Peat Bog - ground crews briefed

Livestock / Bees - 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.

### 5. Prepared By:

Logan Akers



# **SECTOR ASSIGNMENT**

6. Sector Supervisor	Affiliation	Phone	Radio Ch
Steve Joyce	FENZ		DGC 5

#### 7. Resource Allocation

Sector	Crew / Resource	Leader (s)	# Persons
A	Hutt	Jason Sarich	5
В			1 1
C	Wellington	Bryan Sutton	5.
D		• (	Y
S		1/1	
Y		- 520	
Z		1	
		200	

# 8. Sector Assignment / Special Instructions

- . Dig hot areas down and out to cold and if available mix with water by
- poking nozzle right into the ground.

  Continuation of extinguishment of all hot spots to a width of 20m from perimeter Continuation of extinguishm
- Establish and GPS of
- Develop and flag g
- Maintain reporting sche ules, on commencement of work and twice during each day.
- Re-deploy ther sectors determined by fire behaviour

9. Sector Communications		Phone	Radio Ch
Operations Manager.	Steve Joyce		DOC 5
Air Attack-supervisor	Colin Robinson		Fire 4
Safety Officer	Matt Able		DOC5
9 10. Prepared By:	Dale Tawa		_





# SECTOR ASSIGNMENT

5. Division Assigned 4. Description 3. Sector Incident Within Incident Response Plan

Matt Able

**FENZ** 



DOC

7. Resources Assigned	this period	Transport .	(Dipp-off	Pickup	
Resource/Crew	Leader	# Persons	Required N	Point/time	Point/time
Air Ops	Colin Robson	1 x Squirrel 1 x B3		,	
Ground Crews	Steve Joyce	2 x 5-man crew	7/		
Waitangi Fire Brigade	Steve Joyce	2 x Appliances	0		

# 8. Sector Assignment / Special Instructions

# **Injury Accident Contingency**

- Provide First Aid
- Pass Priority message
- assumes responsibility for the "New" incident Senior person "ON \$6
- Advice Incident Controller of secondary incident.
- Most appropriate Senior person "OFF SCENE" assumes responsibility for the "Existing" incident.
   Formal K4% refurning sector command at conclusion of "New' incident and resumption of normal operations.

# Aircraft Incident Conungency

- Second aircraft immediately tracks to "Last Known Location" Confirm status and location of effected aircraft.
- If necessary, Pass Priority Massage before landing to render immediate assistance or diverting to pick up nearest Fire Crew resources and returning to
- Advice Incident Controller of aircraft incident.

9. Sector Communications		Phone	Radio Ch
Operations Manager	Steve Joyce		DOC5
Air Attack Supervisor	Colin Robinson		Fire 4
Safety Officer	Matt Able		DOC5
10. Prepared By:	Logan Akers		



# **MEDICAL PLAN**

3. First Aid Station		Phone/Radio Channel	Paramedics		
Name Deint 106	Name Location oint 106 Staging		available at Station First Aiders		
Crew Leaders	Alpha Sector	DOC 5	First Aiders	- 25	
Clew Leaders	Aipria Occioi	2000		0	
				~ *	
4. Transportation	Addre	ess Phone/Rac		amedics	
<b>Ambulance Service</b>		Channel	available with 7	mbulance	
Air Operations			20		
(Emergency Evac only) St John Ambulance	1 Hospital Road	100 5 100 100 100 100 100 100 100 100 10	Yes		
St John Ambulance WestPac Rescue	i riospitai rtoad	0	Yes		
Life Flight		(0)	1000		
Life i light		17			
5. Hospitals Heli Hospital Name	Address	Phone Road	Air Unit	Pad	
Heli Hospital Name	Address lospital Road	Phone Road 20 min	Air Unit 10 No min	Pad No	
Heli Hospital Name Chatham's 1 H	rocedures  te secolise patients on Wellington Air for Aircraft Movem	20 min	10 No	¥	



# WEATHER AND FIRE BEHAVIOUR PREDICTION

		Temp	RH	Rain	Wind Km/hr	Wind Dir	FFMC	ISI	Grass EROS 75%cured m/hr	Scrub EROS m/hr
Saturday	10/02	21	65	0.2	21	NE	83	4.6	340	1108
Sunday	11/02	19	85	20	38	NE	46	2	Negligible 1	370
Monday	12/02	20	80	0.8	43	N	70	5	380	1341

Prepared By: Rory Renwick

Updated forecast - 9 February 4:10 pm NZDT

#### Saturday (midnight to midnight):

- NE wind sustained 15-20 km/h in the morning, then tending NETE in the afternoon and increasing to 20-30 km/h. Gusts to 40 km/h.
- Early morning minimum temperature 14-15, increasing to a maximum temperature of 21-22 degrees.
- Early morning maximum humidity near 95%, falling to 75% in the afternoon, then increasing to near 95% by midnight.
- Showers developing in the afternoon and committing into the evening. Rainfall of 10-15 mm possible by midnight.

#### Sunday (midnight to midnight):

- ENE wind sustained 20-30 km/h in the morning, thereafter tending NE and increasing to 25-35 km/h. Gusts up to 50 km/h
- Early morning minimula temperature 16-17 degrees, increasing to a maximum temperature of 21-22 degrees.
- Maximum relative humidity 95% early morning, decreasing to 75-80% in the afternoon, then
  increasing to near 100% by midnight.
- Threat for showers continues until midday, then clearing. Additional amounts of 5-10 mm possible.

# Outlook for Monday:

NE wind sustained 25-45+ km/h, may tend N-NW late afternoon into the evening.

Early morning minimum temperature 17-18, increasing to a maximum temperature 21-22 degrees.

Maximum relative humidity 95-100%.

• Isolated showers possible.



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# **Incident Action Plan**

# **MAKARA FIRE**





1. Approved by Incident Controller:

Signed

Date/Time

10/2/18 20:00

Daig Cottrill

1



# SITUATION REPORT

3. Location

4. Vegetation

5. NZTM Grid Ref.

South Western end Chatham Island

Tarehinau Scrub / peat /

#### 6. Assessment

Vegetation in Tarahinau scrub (Dracophyllum) 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 2<sup>nd</sup> 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 flights near the perimeter are common, these are easily contained by helicopters. Then are still identifying numerous small hot spots on or near the perimeter in ma

#### 7. Action taken

Public was evacuated from Waitangi Wharf Owenga Road as a preca aution on the evening of 2nd Feb. and were allowed back into the area the following day one

Local machinery has mulched fuel breaks in Sector Zulu/Sie protection of structures.

Two medium helicopters are continuing to support g with transport and bucket work. Ground crews are focusing on blacking out to 30 e perimeter. All tracks have been marked and helipads cut.

The first Incident Management Team from I midday on the 3rd Feb and transitioned out today, the second IMT is in place until about

#### 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 image camers inonitoring has revealed a much higher number of hot areas than previously estimated. This has let to a revision of the objectives especially the completion time.

# 9. Predicted Incident Development

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

10. Prepared by:





# INCIDENT OBJECTIVES AND STRATEGIES

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

Ensure safety of all responders

Minimise loss of property (especially properties along Waitangi Wharf Owenga Road)

Minimise loss of other values. (especially Taiko Trust Ecological area, and Tuuta/Rangaika Reserve)

Specific objectives

To secure the entire perimeter by extinguishing all burning material within 30r meter by the 28th February

Then patrol on days of elevated fire danger, until significant rain redu

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

Treatment of all burning material within 30m of perimeter with achieved by:

- Targeted extinguishment of all burning mate n 30m of perimeter, detected from a helicopter or thermal camera in areas where c by does not obscure view of the ground
- .Cold trail and black out perimeter to 0m in areas where the canopy obscures the view of the ground from the air.

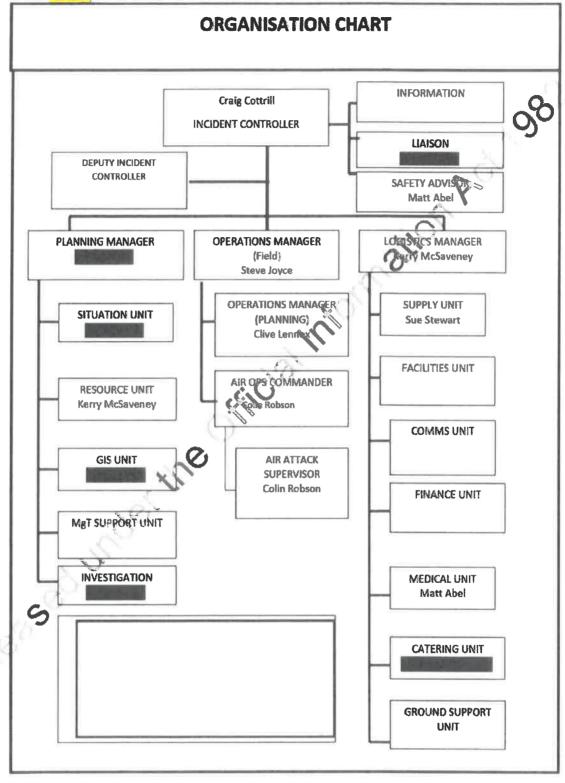
Retain at least one aircraft until per nderthe

5. (repared by:



ORGANISATION LIST					
3. incident Control		Phone	Cell Phone Ra	dio Ch	
Incident Controller	Craig Cottrili	and the		Dog 5	
Safety Officer	Matt Able		- N	Doc 6	
Liaison Officer				Occ 5	
4. Agency Representati	ve	Phone	Cell Phone Ra	dio Ch	
Lead Agency	FENZ		6	Doc 5	
Agency	Chatham Islands Council	THE PARTY N	٧		
Agency	Enterprise Trust				
5. Planning/Intel Section		Phone	Cell Phone	Radio Ch	
Planning/Intel Manager	40			Doc 5	
Situations Unit	IL RESI				
Resources Unit	Kerry McSaveney			Doc 5	
6. Logistics Section	es C	Phone	Cell Phon	e Radio Ch	
Logistics Manager	Kerry McCenarioy			Doc 5	
Supply Unit	Sue Stewart (NZ based)		EU.7 BU.5	1	
Catering Unit				Doc 5	
Facilities Unit	*				
Finance Unit				ı	
Communications Unit	Kerry McSaveney				
Medical Unit	Matt Able			Doc 5	
7. Operations Section	7				
	Steve Jovce		1	I Dog 5	
Operations Manager	Otere Jojee			Doc 5	
Sector Alpha Supervisor			-	-	
Sector Zulu Supervisor					
Sector Sierra Supervisor	Colin Robinson			Dog 5	
Air Attack Supervisor		ie Cowan		Doc 5	
8. Prepared by:	Jam	ie Cowan			







3. Radio Channels Assigned To	Function	Channel	Frequency	s
Command	Management	Doc 5		1 34
Tactical	Tactics	Doc 15	- 5	3
Ground to Air	Air Ops	Fire 4	(	3
Air to Air	Pilots	119.1	0.0	
			20%	
4. Telephone Assigned To	Landline	cell KO	av	Comm
Assigned to	Latinine	phone	· un	COMM
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	کې	0		
6. Other (e.g. email,	Sat phone, etc.)			
Began unit available	for internat and			
phone redundancy	65			
FENZ SAT Phone				
	8			
7. Prepared by	Ken	ry McSaveney		
7. Prepared by:	NGI	Ty Micoaveriey		_
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# **AIR OPERATIONS PLAN**

3. Personnel and Communications						
Position	Name	Affiliation	Phone	Radio Char		
Air Div. Commander	Colin Robson	FENZ - Wellington		Fire 4		
Air Attack Supervisor	Steve Phillips	FENZ - Wellington		Fire 4		
Air Support Supervisor			C	1		
Lead Helicopter Pilot	医单位	Southern Helicopters	10,	Fire 4 DOC 5		
Lead Fixed-Wing Pilot			60			

4. Air Resource Assignments

Pilot Name/ Company	Aircraf t Type	Reg or Call sign	Assignment	Tactical Freq/Chan	Telephone Numbers
Southern Helicopters	Squirre 1 83	IMR	Sectors A Z. Redeployment of	Fire 4	
- Garden		HGU	ground frews for tructure protection on activation of trigger points	Fire 4	

5. Location of Filling Points/Ser@ce Areas Name

**Grid Reference** 

Chatham Airport

Various dipping points within fire ground

6. Safety Notes / Hazards / Radio Coverage Limitations

Power lines winning East West on Owenga Road. Small Cessna fixed wing operating from althou from Pitt Island. Normal airport operations domestic from Tuuta airfield. 0600 thermal flight with

7. Air perations Special Equip or Service

nam's staff to transfer fuel from their tanker to Helo's following CAA standards.

8. Prepared By: Colin Robson





# SAFETY PLAN

### 3. General Safety Points

#### LACES

- L Lookout(s)
- A Anchor Point(s)
- C Communication(s)
- E Escape Route(s)
- S Safety Zone(s)

#### **Fire Orders**

- Fight fire aggressively but provide for safety first.
- Initiate all action based upon current and expected fire. behaviour.
- 3. Recognise current weather conditions and obtain forecasts.
- Ensure instructions are given and
- Obtain current information on fire status
- 6 Pemain in Communication crew members, your super and adjoining forces.
- 7. Determine safety points and escape routes escape routes
- Establish lookouts in potentially hazardous situations.
- 9. Retailirontrol at all times.
  10. See alort, keep calm, think
  2. cearly, act decisively.

#### Watch outs

- Fire not scouted and sized up.
- In country not seen in daylight.

  Safety zones and excap routes not identified.
- Unfamiliar with averturer and local factors influencing in the aviour.

- Uninformed in Strategy, tactics and hazards.
  Instructions and assignments not clear.
  No communications link with crew members or sure visor.
- Constructing fireline without safe anchor point. Constructing fireline downhill with fire below.
- 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 helow.
- 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 - Crew bess and pilots to monitor - Rapid changes.

Fatigue - Crew Boss to monitor with rest periods

Slips, Trips and Falls - Crew briefings, made aware of burnt small stick (punji sticks)

Air Operations Crew pre-flight briefings, pilots and Air Ops monitoring

Driving - All personnel briefed

Dust - Air Crews advised - ground crews supplied PPE and monitor

Fuels and Foam - Correct handling and storage - crews briefed

Poor communications - air ops to monitor radio, PLBs issued to crews

PLB - RCCNZ notified of Chatham Islands activity

Peat Bog - ground crews briefed and made aware of tomos

Livestock- wild bulls and pigs

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.

Chainsaw only to be operated by unit standard qualified personnel

#### 5. Prepared By:

Matt Abel





6. Sector Supervisor	Affiliation	Phone	Radio Cho
Steve Joyce	FENZ	414-41	DIO

#### 7. Resource Allocation

Sector	Crew / Resource	Leader (s)	# Rersons
A	Helos monitor		50
3	Hutt	Jason Sarich	5
С	Wellington	Bryan Sutton	8
D		•	
S		30	
Υ			
Z			
		1/2	

# 8. Sector Assignment / Special Instructions

ailable mix with water by poking nozzle . Dig out hot areas to cold earth and right into the ground.

of all hot spots to a width of 30m from perimeter Continuation of extinguishmen containment

- · Establish and GPS dr
- Develop and flag ground access
  Maintain reporting schedules, on commencement of work and twice during each day.
- other sectors determined by fire behaviour
- Use helicopter for water if necess Use helicopter to recon fire line. for water if necessary.

9. Sector Communications		Phone	Radio Ch
Operations Manager. St			DOC 5
Air Attack Supervisor Co	olin Robinson		Fire 4
Safety Officer Ma	att Able		DOC5
10. Prepared By: St	eve Joyce		





3. Sector	4. Description	S. Division Assigned
	Incident Within Incident Response Plan	Safety J

Matt Abel FENZ

DOC 5

Resource/Crew	Leader	# Persons	Transport Required •	Drop off Cont/time	Pickup Point/time
Air Ops	Colin Robson	1 x Squirrel 1 x B3	8		
Ground Crews	Steve Joyce	2 x 5-man crew			
Waitangi Fire Brigade	Steve Joyce	2 x Appliances	01,		

## 8. Sector Assignment / Special Instructions

#### **Injury Accident Contingency**

- Provide First Aid
- Pass Priority message requesting assistance
- Senior person "ON SCENE" assumes responsibility for the "New" incident
- Advice Incident Controller of secondary incident.
- Most appropriate Senior person "OFF SCENE" assumes responsibility for the "Existing" incident
- Formal K45 returning sector command at conclusion of "New' incident and resumption of normal operations.

#### Aircraft incident Contingency

- Second aircraft immediately tracks to "Last Known Location" Confirm status and location of effected aircraft.
   If Necessary, Pass Priority Massage before landing to render immediate
- If Necessary, Pass Priority Massage before landing to render immediate assistance or diverting to pick up nearest Fire Crew resources and returning to scene.

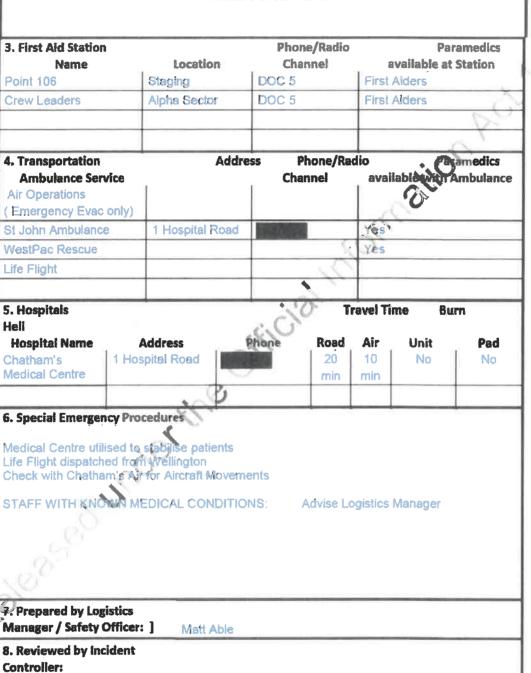
Advice Incident Controller of aircraft incident.

Sector Communications		Phone	Radio Ch
Operations Manager	Steve Joyce		DOC5
Air Attack Supervisor	Colin Robinson		Fire 4
Safety Officer	Matt Abel		DOC5
10. Prepared By:	Matt Abel		





# **MEDICAL PLAN**







# WEATHER AND FIRE BEHAVIOUR PREDICTION

				Rain	Wind				Grass EROS 75%cured	Scrub
		Temp	RH	mm	Km/hr	Wind Dir	FFMC	ISI	m/hr	EROS
Sunday	11/02	22	85	15	35	NE	50	1	Negligible	Negligible
Monday	12/02	22	80	10	40	NE-NW	46	1	Negligible 💃	Negligible
Tuesday	13/02	23	80	5	35	WNW	42	1	Negligible	Negligible

Prepared By:

#### Updated forecast - 10 February 4:10 pm NZDT

Sunday (midnight to midnight):

- NE wind sustained 20-30 km/h in the morning, thereafter increasing to 25-35 km/h. Gusts up to 50 km/h.
- Early morning minimum temperature 17-18 degrees, increasing to a maximum temperature of 21-22 degrees.
- Maximum relative humidity near 100% early proming, decreasing to 85% in the afternoon, then increasing to near 100% by midnight.
- Threat for rain continues until midday, then clearing. Additional amounts of 10-15 mm possible.

#### Monday (midnight to midnight):

- NNE wind in the morning becoming NNW in the afternoon. Sustained winds 35-40 km/h with gusts up to 60 km/h.
- Early morning minimum temperature 17-18, increasing to a maximum temperature of 22 degrees.
- Early morning relegion humidity of 95-100%, falling to 80% in the afternoon.
- Morning showers possible with rainfall up to 10 mm.

#### Outlook for Tuesday:

NW and becoming WNW at 25-35 km/h.

Maximum temperature near 23 degrees.

Minimum relative humidity near 80%.

Early morning rain possible, then clearing.

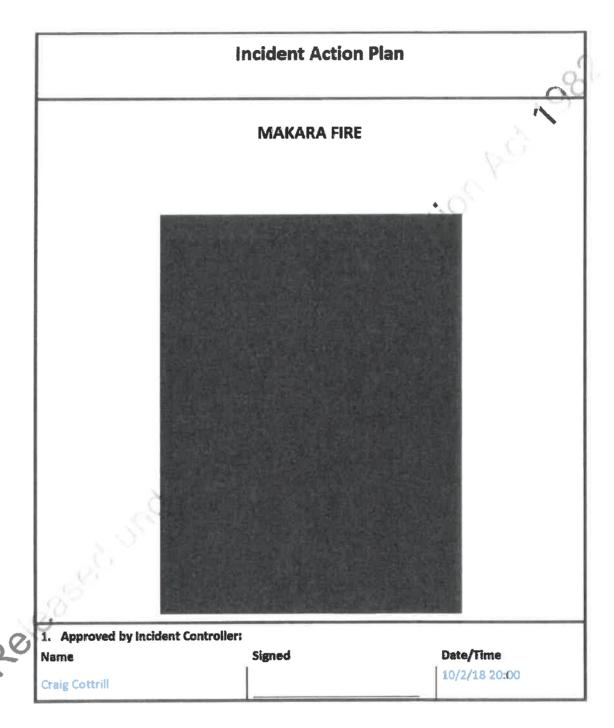


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#### SITUATION REPORT

3. Location

4. Vegetation

5. NZTM Grid Ref.

South Western end Chatham Island

Tarehinau Scrub / peat /

#### 6. Assessment

Vegetation in Tarahinau scrub (Dracophyllum) 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 2<sup>nd</sup> 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 flights are still identifying numerous small hot spots on or near the perimeter in mean sectors.

#### 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/Signit, for protection of structures.

Local machinery has mulched fuel breaks in Sector Zulu/Signt 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  $10^{\,\mathrm{h}}$ ,  $2^{\mathrm{nd}}$  IMT is in place until about Friday of next week.

#### 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 trobavailable on the island will take 2-4 days to arrive.

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

Thermal image camera monitoring has revealed a much higher number of hot areas than previously estimated. This has led to a revision of the objectives especially the completion time.

#### 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.

(20: Prepared by:





# **INCIDENT OBJECTIVES AND STRATEGIES**

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

Ensure safety of all responders

Protect life of residents

Minimise loss of property (especially properties along Waitangi Wharf Owenga Road)
Minimise loss of other values. (especially Taiko Trust Ecological area, and Tuuta/Rangaika Reserve)

#### Specific objectives

To secure the entire perimeter by extinguishing all burning material within 30m of perimeter by the 28th February

Then patrol on days of elevated fire danger, until significant rain reduces drought codes.

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

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 catopy 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.

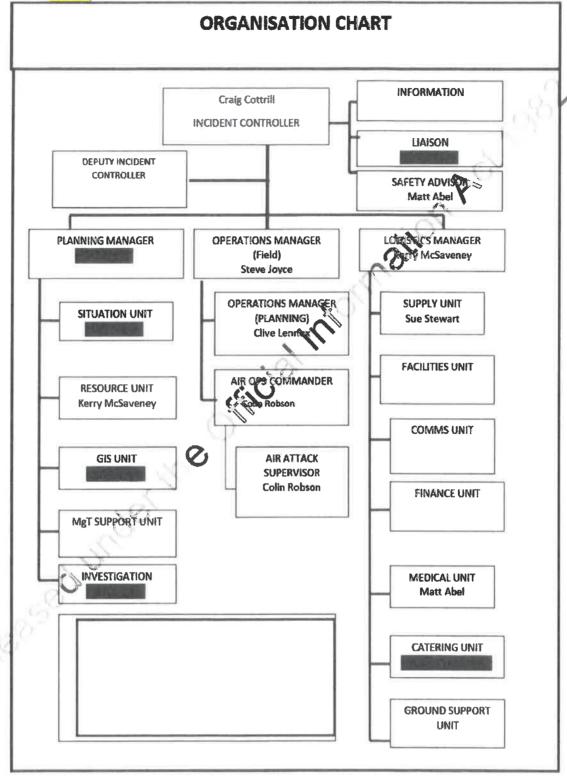
Retain at least one aircraft until perimeter is secure.

5. (repared by:



	ORGANISATION I	LIST		
3. Incident Control		Phone	Cell Phone Ra	rdio Ch
Incident Controller	Craig Cottrill	0.71		Dog 5
Safety Officer	Matt Able	#ILES		Doce
Liaison Officer			_ (	Occ 5
4. Agency Representati	ve	Phone	Cell Phone Ra	adio Ch
Lead Agency	FENZ	DE SE	Q.	Doc 5
Agency	Chatham Islands Council		J.	
Agency	Enterprise Trust	100		
5. Planning/Intel Section		Phone	Cell Phone	Radio Ch
Planning/Intel Manager				Doc 5
Situations Unit	16,			
Resources Unit	Kerry McSaveney	15976		Doc 5
6. Logistics Section	c <sub>C</sub> C)	Phone	Cell Phor	ne Radio Ch
Logistics Manager	Kerry McCaveney	0.23		Doc 5
Supply Unit	Sue Stewart (NZ based)		Than	
Catering Unit	MAN THE REAL	THE 8		Doc 5
Facilities Unit				
FinanceUnit		1554	38774	
Communications Unit	Kerry McSaveney			
Medical Unit	Matt Abie			Doc 5
7. Operations Section		i	ì	ř
Operations Manager	Steve Joyce	No. of the last		Doc 5
Sector Alpha Supervisor				
Sector Zulu Supervisor				
Sector Sierra Supervisor				
Air Attack Supervisor	Colin Robinson	- Pr - CO		Doc 5
8. Prepared by:	18	5 W Y Y 2		







Assigned To Command Management Doc 5 Tactical Tactics Doc 15 Ground to Air Air Ops Fire 4 Air to Air Pilots 119.1  4. Telephone Assigned To Landline Cell phone Command Comman	3. Radio Channels				
Tactical  Ground to Air  Air Ops  Fire 4  Air to Air  Pilots  119.1  4. Telephone Assigned To  Landline  Cell phone  Comr  Com		Function	-	Frequency	S
Ground to Air Air Ops Fire 4 Air to Air Pilots 119.1  4. Telephone Assigned To Landline Cell phone Comm Comm Comm Comm Comm Comm Comm Com	Command	Management	Doc 5		×
Air to Air  Pilots  119.1  4. Telephone    Assigned To    Landline  Cell	Tactical	Tactics	Doc 15		1
4. Telephone Assigned To Landline Cell phone Communication	Ground to Air	Air Ops	Fire 4		
4. Telephone Assigned To Landline Cell Pax Commphone  6. Other (e.g. email, Sat phone, etc.) Began unit available for integrated phone redundancy  FENZ SAT Phone	Air to Air	Pilots	119.1	10,	
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2500	.0.				
7. Prepared by: Kerry McSaveney	3				



# **AIR OPERATIONS PLAN**

3. Personnel and Comm	unications			
Position	Name	Affiliation	Phone	Radio Chan
Air Div. Commander	Colin Robson	FENZ - Wellington		Fire 4 DOC 5
Air Attack Supervisor	Steve Phillips	FENZ - Wellington		Fire 4
Air Support Supervisor			- 4	1
Lead Helicopter Pilot	10 100	Southern Helicopters	ijo	Fire 4 DOC 5
Lead Fixed-Wing Pilot			00	

4. Air Resource Assignments

Pilot Name/ Company	Aircraf t Type	Reg or Call sign	Assignment	Tactical Freq/Chan	Telephone Numbers
- Southern Helicopters	Squirre I B3	IMR	Sectors A.Z. Redeployment of	Fire 4	
- Garden City		HGU	ground erews for structure protection on activation of trigger points	Fire 4	

5. Location of Filling Points/Service Areas

Name

**Grid Reference** 

Chatham Airport

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 aircon from Pitt Island. Normal airport operations domestic from Tuuta airfield. 0600 the mal flight with

7. Air Operations Special Equip or Service

atham's staff to transfer fuel from their tanker to Helo's following CAA standards.

8. Prepared By: Colin Robson



### SAFETY PLAN

#### 3. General Safety Points

#### LACES **Fire Orders** Watch out Fight fire aggressively but Fire not scouted and sized up L - Lookout(s) In country not seen in devia ht. Safety zones and exapt routes not identified. provide for safety first. A - Anchor Point(s) Initiate all action based upon Unfamiliar with worther and local factors influencing the behaviour. current and expected fire C - Communication(s) behaviour. Uninformed matrategy, tactics and hazards. Instructions and assignments not clear. No communications link with crew members or Recognise current weather E - Escape Route(s) conditions and obtain forecasts S - Safety Zone(s) Ensure instructions are given and supervisor. understood. constructing fireline without safe anchor point. Constructing fireline downhill with fire below. Obtain current information on Attempting frontal assault on fire. fire status. 11. Unburned fuel between you and the fire. Remain in Communication 12. Cannot see main fire, not in contact with crew members, your supple anvone who can. and adjoining forces. Determine safety zones and 13. On hillside where rolling material can ignite fuel escape routes Establish pokents in potentially 14. Weather is getting hotter and drier. 15. Wind increases and/or changes direction. hazardous situations. 16. Getting frequent spot fires across the line. 17. Terrain and fuels make escape to safety zones 9. Retains ontrol at all times. 10. Say that, keep calm, think bearly, act decisively.

difficult.

18. Taking a nap near the fire line.

4. Specific Safety Points

Weather - Crew bass and pilots to monitor - Rapid changes.

Fatigue - Crew Boss to monitor with rest periods

Slips, Trips and Falls - Crew briefings, made aware of burnt small stick (punji sticks)

Air Operations - Crew pre-flight briefings, pllots and Air Ops monitoring

Driving - All personnel briefed

Dust - Ar Crews advised - ground crews supplied PPE and monitor

Fuels and Foam - Correct handling and storage - crews briefed

Poor communications - air ops to monitor radio, PLBs issued to crews

RLB - RCCNZ notified of Chatham Islands activity

Peat Bog - ground crews briefed and made aware of tomos

Livestock- wild bulls and pigs

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. Chainsaw only to be operated by unit standard qualified personnel

5. Prepared By:

Matt Abel





6. Sector Supervisor	Affiliation	Phone	Radio Ch
Steve Joyce	FENZ	(CANTES)	DQC

#### 7. Resource Allocation

Sector	Crew / Resource	Leader (s)	# Rersons
A	Helos monitor		60
В	Hutt	Jason Sarich	5
C	Wellington	Bryan Sutton	(B.
D		•.0	
S		8.7	
Y		1	
7		1	
		- 0	

#### 8. Sector Assignment / Special Instructions

- . Dig out hot areas to cold earth and it a vailable mix with water by poking nozzle right into the ground.
- Mall hot spots to a width of 30m from perimeter Continuation of extinguishm containment
- Establish and GPS drog
- Develop and flag ground access
  Maintain reporting schedules, on commencement of work and twice during each day.
- · Re-deployment to other sectors determined by fire behaviour
- · Use helicopter for water if necessary.
- Use helicopter to recon fire line.

9. Sector Communications		Phone	Radio Ch
Operations Manager.			DOC 5
Air Attack Supervisor Safety Officer	Colin Robinson		Fire 4
Safety Officer	Matt Able		DOC5
10. Prepared By:	Steve Joyce		



3. Sector	4. Description	5. Division Assigned
	Incident Within Incident Response Plan	Safety

Matt Abel **FENZ** 

7. Resources Assigned	liss period	Transport	Dippoff	Pickup	
Resource/Crew	Leader	# Persons	Required	oint/time	Point/time
Air Ops	Colin Robson	1 x Squirrel 1 x B3	20		
Ground Crews	Steve Joyce	2 x 5-man crew	100		
Waitangi Fire Brigade	Steve Joyce	2 x Appliances	0/1		

# 8. Sector Assignment / Special Instructions

#### **Injury Accident Contingency**

Provide First Aid

Pass Priority message re

umes responsibility for the "New" incident Senior person "ON SC

secondary incident. Advice Incident Co

person "OFF SCENE" assumes responsibility for the Most appropriate S

"Existing" incident
Formal K45 retarding sector command at conclusion of "New' incident and resumption of mal operations.

#### Aircraft Incident Conting

craft immediately tracks to "Last Known Location" Confirm status and effected aircraft.

essary, Pass Priority Massage before landing to render immediate istance or diverting to pick up nearest Fire Crew resources and returning to

Advice Incident Controller of aircraft incident.

9. Sector Communications		Phone	Radio Ch
Operations Manager	Steve Joyce		DOC5
Air Attack Supervisor	Colin Robinson		Fire 4
Safety Officer	Matt Abel		DOC5
10. Prepared By:	Matt Abel		



8. Reviewed by Incident

**Controller:** 

#### MEDICAL PLAN 3. First Aid Station Phone/Radio **Paramedics** available at Station Location Channel Name Point 106 DOC 5 First Aiders Staging **Crew Leaders** Alpha Sector DOC 5 First Aiders 4. Transportation Address Phone/Radio **Payamedics Ambulance Service** Channel available with Ambulance Air Operations (Emergency Evac only) St John Ambulance 1 Hospital Road Yes Yes WestPac Rescue Life Flight 5. Hospitals **Travel Time** Burn Heli Road **Hospital Name Address** Air Unit Pad 1 Hospital Road 20 Chatham's 10 No No Medical Centre min min 6. Special Emergency Procedures Medical Centre utilised to stabilise patients Life Flight dispatched from Wellington Check with Chatham's Air for Aircraft Movements TH KNOWN MEDICAL CONDITIONS: **Advise Logistics Manager** . Prepared by Logistics Manager / Safety Officer: ] **Matt Able**



# 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	12/02	22	90	15	40	NE-NW	30	0	Negligible	Negligible
Tuesday	13/02	23	80	5	30	NNW	61	0	Negligible	Negligible
Wednesday	14/02	22	65	0	20	SW	78	1	70	600

#### Prepared By:

#### Updated forecast - 11 February 4:15 pm NZDT

Monday (midnight to midnight):

- NNE wind in the morning becoming N in the afternoon Systemed winds 35-40 km/h increasing to 40-45 km/h by late morning. Gusts 65-70 km/h possible.
- Early morning minimum temperature 17-18, increasing to a maximum temperature of 22 degrees.
- Early morning relative humidity of 95-100%, falling to 80-85% in the afternoon.
- Early morning rain likely, with additional rain possible late in the day. Total rainfall of 10-20 mm possible.

#### Tuesday (midnight to midnight):

- NNW wind becoming WNW in the afternoon. Sustained winds 25-35 km/h with gusts up to 50
- Morning minimum temperature near 17 degrees, increasing to 24 degrees in the afternoon.
- Morning relative humidity near 100%, falling to 85% in the afternoon.
- Early morning storiers possible, then clearing. Rainfall up to 5 mm.

#### Wednesday Outlo

- Morning minimum temperature near 16 degrees, increasing to 20-21 common relative humidity near 100%, falling to 80% in the afternoon.

  No rainfall expected. (Morning minimum temperature near 16 degrees, increasing to 20-21 degrees in the afternoon.



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# **Incident Action Plan MAKARA FIRE** 1. Approved by Incident Controller: Name Signed Date/Time 12/2/18 17:00 Craig Cottrill



### SITUATION REPORT

3. Location

4. Vegetation

5. NZTM Grid Ref.

South Western end Chatham Island

Tarehinau Scrub / peat /

#### 6. Assessment

Vegetation in Tarahinau scrub (Dracophyllum) 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 2<sup>nd</sup> 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 flights are still identifying numerous small hot spots on or near the perimeter in most sectors. are still identifying numerous small hot spots on or near the perimeter in m

37mm of rain in the past 48 hours.

#### 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 price rain moderated fire behaviour.

Local machinery has mulched fuel breaks in Sector Zulo/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.

arrived midday on the 3rd Feb and transitioned on The first Incident Management Team the 10 h, 2nd IMT is in place until abo ay of this week.

Crew stood down due to bad weather for 12th February.

#### & 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 image samera monitoring has revealed a much higher number of hot areas than previously estimated. This has led to a revision of the objectives especially the completion time.

#### 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.

Possible cyclone approaching the Chathams next week.

10. Prepared by:





# INCIDENT OBJECTIVES AND STRATEGIES

#### 3. INCIDENT OBJECTIVE(S)/AIM MISSION: (SMART, Specific, Measurezbie, Achievable Ralevant, Tome bound)

Ensure safety of all responders

Minimise loss of property (especially properties along Waitangi Wharf Owenga Road)
Minimise loss of other values. (especially Taiko Trust Ecological area, and Tuuta/Rangaika Reserve)

#### Specific objectives

To secure the entire perimeter (estimated 40km long) by extinguishing all burning material within 30m of perimeter by the 28th February

Then patrol on days of elevated fire danger, until significant rain reduces grought codes.

#### 4. STRATEGY/ STRATEGIES: (Plan of Action to meet incident Obj

- Treatment of all burning material within 30m of perimeter within achieved by:

  •Targeted extinguishment of all burning material within 30m of perimeter, detected from a helicopter or thermal camera in areas where campy does not obscure view of the ground
  - •Cold trail and black out perimeter to a width 30m in areas where the canopy obscures the view of the ground from the air.

Retain at least one aircraft until perimeter is secure.

5. (repared by:



8. Prepared by:

	ORGANISATIO	N LIST		
3. Incident Control		Phone	Cell Phone Rac	dio Ch
Incident Controller	Craig Cottriil	MINO	I	Doc 5
Safety Officer	Matt Able	15500		Doc 5
Liaison Officer			C	Doc 5
4. Agency Representativ	ve	Phone	Cell Phone Rac	lio Ch
Lead Agency	FENZ		0	Doc 5
Agency	Chatham Islands Council	Mark V	)	
Agency	Enterprise Trust			
5. Planning/Intel Section		Phone	Cell Phone	Radio Ch
Planning/Intel Manager	5			Doc 5
Situations Unit				
Resources Unit	Kerry McSaveney	118-11		Doc 5
5. Logistics Section	CO	Phone	Cell Phone	-
Logistics Manager	Kerry McSaveney	2400		Doc 5
Supply Unit	Sue Stewart (NZ based)		e/logita	
Catering Unit	my company			
Facilities Unit				
Finance Unit		F125-113	PXETE	
Communications Unit	Kerry McSaveney			
Medical Unit	Matt Able	ME		Doc 5
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7. Operations Section		1	¥	
<b>A</b>	Steve Joyce			Doc 5
Sector Alpha Supervisor				
Sector Zulu Supervisor				
Sector Sierra Supervisor				
Air Attack Supervisor	Colin Robinson	Hazzit.		Doc 5



