

Headquarters New Zealand Defence Force Defence House Private Bag 39997 Wellington Mail Centre Lower Hutt 5045 New Zealand

OIA-2024-5005



@rnz.co.nz

Dear

I refer to your email of 30 April 2024 requesting the following information under the Official Information Act 1982 (OIA):

- Any and all correspondence regarding the final group of 12 NZDF personnel in Antarctica and the end
  of their deployment.
  - <u>https://www.nzdf.mil.nz/media-centre/news/antarctica-season-comes-to-a-close-while-herculescrew-conducts-medical-evacuation/</u>
- This might include documents, messages, emails, analysis and details of the weather and the "aircraft availability constraints" which delayed their return home.
- This could also cover correspondence between officials in NZ and those in Antarctica about the end of the deployment.

The New Zealand Defence Force (NZDF) provides logistics and maintenance support to Antarctica New Zealand as part of its contribution to the Joint Logistics Pool New Zealand shares with the United States of America. On March 18 2024, a group of 12 NZDF personnel were due to return to New Zealand. Numerous weather delays and aircraft availability constraints meant the personnel spent an extra four weeks deployed than originally planned.

Enclosed is relevant correspondence. Where indicated, information is withheld for the following reasons: operational information is withheld in accordance with section 6(a) of the OIA to avoid prejudice to the security and defence of New Zealand; information provided on a basis of confidence by our military partners and foreign agencies is withheld in accordance with section 6(b)(i) of the OIA; personal information is withheld in accordance with section 9(2)(a) of the OIA; and advice is withheld in accordance with section 9(2)(a) of the OIA; and advice is withheld in accordance with section 9(2)(a) of the OIA; and advice is withheld in accordance with section 9(2)(a) of the OIA; and advice is withheld in accordance with section 9(2)(a) of the OIA; and advice is withheld in accordance with section 9(2)(a) of the OIA; and advice is withheld in accordance with section 9(2)(a) of the OIA; and advice is withheld in accordance with section 9(2)(a) of the OIA; and advice is withheld in accordance with section 9(2)(a) of the OIA; and advice is withheld in accordance with section 9(2)(a) of the OIA; and advice is withheld in accordance with section 9(2)(a) of the OIA; and advice is withheld in accordance with section 9(2)(a) of the OIA to enable the effective conduct of public affairs.

Term	Meaning	
MCM	McMurdo Station	
DPSC	Deployed Personnel Support Cell	
PSR	Point of Safe Return	
JAOC	Joint Air Operations Centre	
EOP	End of Play (end of the working day)	
HTT	Harewood Terminal Team (at MIL termina CHCH airport)	
NSF	National Science Foundation (USA)	
IOT	in order to	
LET DET CMDR	Light Engineer Team Detachment Commander	
MD420D	Duty Related Domestic Travel Request	
APX	Atlantic and Pacific American Express	

A glossary for some of the acronyms used in the correspondence is provided below:

WX	weather
TAF	Terminal Aerodrome Forecast
IDC	In due course
NZFX	Phoenix runway/airfield in Antarctica
NVG "A"	Night Vision Goggles – Alpha
MEDEVAC	Medical Evacuation
OpsO	Operations Officer
RMP	Risk Management Plan
ACC	Air Component Commander
MCF	Maintenance Check Flight
ASWEX	Anti-Submarine Warfare Exercise
ECT	Evening Civil Twilight
MCT	Monthly Continuation Training

You have the right, under section 28(3) of the OIA, to ask an Ombudsman to review this response to your request. Information about how to make a complaint is available at <u>www.ombudsman.parliament.nz</u> or freephone 0800 802 602.

Please note that responses to official information requests are proactively released where possible. This response to your request will be published shortly on the NZDF website, with your personal information removed.

Yours sincerely

#### AJ WOODS

Air Commodore Chief of Staff HQNZDF

#### Enclosure:

1. Emails

Wright, Lucy, MAJ Monday, 15 April 2024 8:31 a.m. s. 6(a), s. 9(2)(a) C130 wheels up!

Good morning everyone

Over the weekend there was a request for an urgent medevac from McMurdo (US program participant, not one of ours). The C17 <sup>s.6(b)(i)</sup> so the request was put to NZDF. It was approved on Saturday and a C130 flew from Akl to Chch late Saturday night. The weather was terrible on Sunday, so the flight was delayed. A GO call was made this morning at 0300, with wheels up at 0722. PSR (point of safe return aka the last time the plane can turn back) is 1221, and ETA to Phoenix (the airfield on ice) is 1407.

The 12x NZDF at MCM are the priority after the patient to come north, so if the plane gets in they will be coming home today. JFNZ are tracking and DPSC will sort out accommodation etc once the plane is through PSR

If you have any questions, please let me know. I'm on leave but just give me a yell on my cell phone if needed

Ngā mihi

MAJ Lucy Wright, BVSc (she/her)

Senior National Officer Op Antarctica, Headquarters Joint Forces New Zealand Te Ope Kātua o Aotearoa | New Zealand Defence Force M:<sup>\$.9(2)(a)</sup>

www.nzdf.mil.nz



From:	s. 6(a)
Sent:	Friday, 12 April 2024 4:18 p.m.
To:	Wright, Lucy, MAJ
Cc:	s 6(a)
Subject:	RE: Request for consideration of C130 support

Good afternoon Lucy and great to talk with you earlier.

S

I understand you have talked to <sup>s.6(a)</sup> from the JAOC again, but just to confirm as of EOP today - the C130 option is **NOT** likely to be a go until Monday.

Sir - for your awareness re the return of our remaining 12 NZDFOP ANT pers and the Ant NZ crew.

<sup>s.6(a)</sup> – Also for your awareness and ack the updates through the ANT inbox that the HTT positions have now been filled through the call for noms – well done!

Have a wonderful weekend all

Kind regards

s.6(a)

s.6(a)

Misson Manager Operations, Headquarters Joint Forces New Zealand Te Ope Kātua o Aotearoa | New Zealand Defence Force

s.6(a)

www.nzdf.mil.nz



From: Wright, Lucy, MAJ Sent: Friday, 12 April 2024 1:14 p.m. To: <sup>s.6(a)</sup> Cc: <sup>s.6(a)</sup>

Subject: Request for consideration of C130 support

Good afternoon s.6(a)

Situation: there are 52 pax, including 12 NZDF, at MCM awa	aiting their RTNZ flight. They were supposed to come
home on 18 Mar but due to weather delays (B757) <sup>s. 6(b)(i)</sup>	they are still there. The C17 is <sup>s. 6(b)(i)</sup>
	anticipated to be able to fly until 14 or 15 April at the

earliest.

Following a conversation with Ant NZ and NSF, if Ant NZ were to pay the marginal costs as per the MOU for an additional C130 flight, is this something that 40 Sqn could support? If this was supportable, what would the deployment timeframe be?

s. 6(b)(i)

If you have any questions, please let me know

Ngā mihi

#### MAJ Lucy Wright, BVSc (she/her)

Senior National Officer Op Antarctica, Headquarters Joint Forces New Zealand Te Ope Kātua o Aotearoa | New Zealand Defence Force M:<sup>s. 9(2)(a)</sup>

www.nzdf.mil.nz

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From:	s. 6(a)	
Sent:	Friday, 12 April 2024 11:35 a.m.	
То:	Wright, Lucy, MAJ; <sup>s. 6(a)</sup> s <sup>6(a)</sup>	
Cc:	s 6(a)	
Subject:	RE: Bad news re C17	

No problem Ma'am, and ack the C17 update.

Frustrating situation that we are all facing with atm. I would like to mention how greatly apprieated I am with all your continued efforts to this situation and to the mission itself. We will get there ©.

Kia ora<sup>s.6(a)</sup>,

What would be the minimum number of HTT personal needed IOT conduct and achieve RTNZ for the personnel.

s.6(a)

In Support to this, CFN and RTU is causing you concerns atm. Understandable from The Mission and Units. In the CFN can we asked for a longer period ie.. CFN: 13 – 21 Apr or inform the Unit of possible extension due to Weather or Mechanical issues. This can be noted as part of the CFN application.

To that end team, When submitting the next CFN be more deliberate IOT allow more room for error, aka (delays).

I hope this makes sense. Happy to discuss.

s. 6(a)

s.6(a)

Headquarters Joint Forces New Zealand Te Ope Kātua o Aotearoa | New Zealand Defence Force

www.nzdf.mil.nz



From: Wright, Lucy, MAJ Sent: Friday, 12 April 2024 10:55 a.m. To: <sup>s 6(a)</sup> s.6(a) Cc: <sup>s.6(a)</sup> Subject: Bad news re C17

Morning everyone

Unfortunately the C17 has boomeranged back to Chch<sup>s. 6(b)(i)</sup> , so it won't be flying for at least another 2-3 days. I am waiting on the official confirmation of timeframe <sup>s.6(b)(i)</sup> able to fly.

Not the news I was hoping for, the team on ice are tracking.

When I have further information I will let you know.

Ngā mihi

#### MAJ Lucy Wright, BVSc (she/her)

Senior National Officer Op Antarctica, Headquarters Joint Forces New Zealand Te Ope Kātua o Aotearoa | New Zealand Defence Force M:<sup>s. 9(2)(a)</sup>

www.nzdf.mil.nz

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From:Wright, Lucy, MAJSent:Friday, 12 April 2024 11:07 a.m.To:s 6(a)Solutions 6(a)Cc:s 6(a)Subject:C17 update

Good morning again everyone

I have just received an update - the Lt Col in charge of the C17 mission has said that they s. 6(b)(i)

won't be able to fly today and it is highly unlikely

they will fly tomorrow but Sunday is still an option.

The HTT will keep me updated as more information comes to hand. The C17 crew are very keen to get the mission executed safely and get everyone home.

Ngā mihi

MAJ Lucy Wright, BVSc (she/her) Senior National Officer Op Antarctica, Headquarters Joint Forces New Zealand Te Ope Kātua o Aotearoa | New Zealand Defence Force M: <sup>S.9(2)(a)</sup>

www.nzdf.mil.nz



From:	Wright, Lucy, MAJ				
Sent:	Friday, 12 April 2024 9:35 a.m.				
To:	s. 6(a)				
Cc:	s 6(a)				
Subject:	C17				

Morning everyone

The C17 has just boomeranged <sup>s. 6(b)(i)</sup>	but they are hopeful <sup>s. 6(b)(i)</sup>	they will
then launch again.		

Once I have more details I will let you know.

Ngā mihi Lucy

<sup>s 6(a)</sup> Thursday, 11 April 2024 10:42 a.m. Wright, Lucy, MAJ RE: Domestic flight change

Hi Ma'am,

That's unfortunate! I can't believe how long this has been dragging on for!

s. 9(2)(a)

Operations Administrator - DPSC - HRSC, Human Resource Service Centre Te Tauaarangi o Aotearoa | Royal New Zealand Air Force s. 9(2)(a)

www.nzdf.mil.nz



From: Wright, Lucy, MAJ Sent: Thursday, 11 April 2024 10:34 a.m. To: <sup>s 6(a)</sup> Subject: RE: Domestic flight change

Hi<sup>s.9(2)(a)</sup>

C17 delayed, flying tomorrow :(

From: <sup>s.6(a)</sup>	
Date: Thursday, 11 Apr 2024 at 10:32 AM	
To: s.6(a)	
Cc: S.U(a)	>, Wright, Lucy, MAJ <sup>s. 6(a)</sup>
Subject: FW: Domestic flight change	

Hi<sup>s 6(a)</sup>

 Please see below request from 21/04/2024 at 1255.
 LET DET CMDR, for RTNZ travel to be postponed for s.6(a)
 until

If The C17 is successful today and we fly him home tomorrow the cost of air fares will be the same regardless of date travelled.

Please see attached screenshots from the Air New Zealand website as comparison.

Christchurch to Palmerston North NZ5176 CHC > PMR	<u>y</u>	Fri 12 Apr 2024 12:55рм	1 adult	
One way			Modify search	
				VIEW DETAIL
Select your flight to Pa	lmer	ston North		
		\$356	\$311 \$311	\$252
Christchurch to Palmerston North NZ5176 CHC > PMR	<u>&gt;</u>	Sun 21 Apr 2024 12:55рм	1 adult	
North	2		1 adult Modify search	

Request approval for RTNZ flights to be changed for 21/04/2024.

#### Kind regards

s. 9(2)(a)

Operations Administrator - DPSC - HRSC, Human Resource Service Centre Te Tauaarangi o Aotearoa | Royal New Zealand Air Force s. 9(2)(a)

www.nzdf.mil.nz



From: <sup>s. 9(2)(a)</sup> Sent: Wednesday, 10 April 2024 2:10 p.m. To: Wright, Lucy, MAJ <sup>s. 6(a)</sup> s. 6(a) Cc: <sup>s. 6(a)</sup>

Subject: Domestic flight change

Good afternoon Ma'am and <sup>s.9(2)(a)</sup>

I have had <sup>s. 9(2)(a), s. 6(a)</sup> ask me if he could have his return flight to Palmerston North delayed IOT spend time with his family in Christchurch.

He had planned to travel from Palmerston North to Christchurch on Friday 12 April, but due to the delays we will only be arriving in NZ around this time.

He would like to catch the following flight,

Sunday 21 April 1255 Christchurch to Palmerston North.

This flight would be at public expense but will cost the same or less than any flight booked for the next day post our RTNZ.

For your consideration.

Kind regards s 9(2)(a)

s. 9(2)(a)

Troop Staff Sergeant - 25ESS, 2nd Engineer Regiment RNZE Ngāti Tūmatauenga | New Zealand Army

www.nzdf.mil.nz



<sup>s 6(a)</sup> Tuesday, 9 April 2024 12:05 p.m. Wright, Lucy, MAJ RE: RTNZ onwards travel request (9 APR 24)

Good morning Maám,

In <sup>s. 9(2)(a)</sup> absence, I am tracking OP ANT movements.

Taking note of the requests below, here is what has been updated so far:

- Have requested the CHC-PMR flight to be changed to the earliest departure timing. Waiting for response/itinerary
- Waiting for updated itinerary for <sup>s.6(a)</sup>. Emailed again this morning.
- <sup>s.6(a)</sup> . Itinerary updated and received. Timing CHC-DUD 1200 successful.
- <sup>s.6(a)</sup> . MD420D request sent to APX for one nights accommodation in hotel.

s. 9(2)(a)

Attachment & Tour of Duty-HRSC Pay1G, Human Resource Service Centre Te Taua Moana o Aotearoa | Royal New Zealand Navy

www.nzdf.mil.nz



From: Wright, Lucy, MAJ
Sent: Tuesday, 9 April 2024 7:28 a.m.
To: <sup>s. 6(a)</sup>
Subject: RTNZ onwards travel request

Hi<sup>s 9(2)(a)</sup>

I've had a consolidated return from <sup>s. 9(2)(a)</sup> from the LET regarding onwards travel in NZ requests once they get back – hopefully today, C17 is due for wheels up at 1100.

For the LET – they have all requested (for those going to Palmy) that they are on the earliest flight from Chch to Palmy, I think it's a 0815 from memory

s. 6(a) would like the 1135 to Wellington

s. 6(a) would like the 1200 to Dunedin

<sup>s. 6(a)</sup> has requested a night in the hotel on RTNZ as he moved out of barracks for the duration, so doesn't have a room at BMC to go back to

The LET, <sup>s 6(a)</sup> all have 2 bags

1

Please don't feel pressured if you can't make it all work, but I have confidence in your ability to do magic ©

Cheers

#### MAJ Lucy Wright, BVSc (she/her)

Senior National Officer Op Antarctica, Headquarters Joint Forces New Zealand Te Ope Kātua o Aotearoa | New Zealand Defence Force M:<sup>s.9(2)(a)</sup>

www.nzdf.mil.nz

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<sup>s 6(a)</sup> Monday, 8 April 2024 1:47 p.m. Wright, Lucy, MAJ RE: <sup>s 6(a)</sup> flight to palmy

Will work some magic! Fingers crossed they go tomorrow.

s. 9(2)(a)

Team Leader Operations - DPSC - HRSC, Human Resource Service Centre Te Tauaarangi o Aotearoa | Royal New Zealand Air Force s. 9(2)(a)

www.nzdf.mil.nz



From: Wright, Luc	y, MAJ	
Sent: Monday, 8 A	pril 2024 1:47 p.m.	
To: <sup>s 6(a)</sup>		
Subject: <sup>s. 6(a)</sup>	flight to palmy	
TT' 8 9(2)(a)		
Hi <sup>s.9(2)(a)</sup>		

With the delay in C17 til tomorrow can I please request that Palmy on the Wednesday <sup>s.9(2)(a)</sup>

gets the first flight back to

He's tracking this but didn't want to be a pain!

Cheers Maj W

s.9(2)(a)

Wright, Lucy, MAJ Thursday, 4 April 2024 2:17 p.m. <sup>s 6(a)</sup> Contact with DSO and concerns

Good afternoon Sir

I have not had any comms from <sup>s 6(a)</sup> raising any concerns about his delayed RTNZ. I understand all the team down there are a bit over it and the continual shuffle to the right is frustrating, but they are keeping busy with work and looking forward to getting home.

I provided <sup>s 6(a)</sup> with a blurb:

Unfortunately the C17 that is coming from the United States has been delayed. It is now due to land in New Zealand at the weekend, then after a day of crew rest they are planning to fly the final mission of the summer season on 8 April. This date may change if weather or maintenance dictate, however the C17 has the greatest operational tolerances of all the airframes that fly to the ice, so has the greatest chance of mission success.

Regarding the B757, this has an operational window that it is able to fly within. The last date the B757 could have flown to the ice was 22 March. After this the temperature and reducing daylight hours means it is outside of the operational window. The B757 attempted to fly south on both 18 and 19 March, but turned back both times (boomeranged) due to the forecast changing while the plane was in the air. The weather on 20/21/22 March was not suitable for flying and therefore the B757 was at the end of the time where it was viable for it to fly to the ice.

If you have any questions, please let me know

Ngā mihi Lucy

MAJ Lucy Wright, BVSc (she/her) Senior National Officer Op Antarctica, Headquarters Joint Forces New Zealand Te Ope Kātua o Aotearoa | New Zealand Defence Force M:<sup>\$.9(2)(a)</sup>

www.nzdf.mil.nz



s.9(2)(a)

s. 9(2)(a) Wednesday, 3 April 2024 12:53 p.m. Wright, Lucy, MAJ RE: Delay to RNTZ for Op Ant personnel unclassified

Lovely, thanks Lucy.

Deployment Services Officer, Linton Regional Support Centre NEW ZEALAND DEFENCE FORCE s. 9(2)(a)

www.nzdf.mil.nz



A FORCE FOR New Zealand

From: Wright, Lucy, MAJ Sent: Wednesday, 3 April 2024 11:35 a.m. To: <sup>s. 9(2)(a)</sup> Subject: Delay to RNTZ for Op Ant personnel unclassified

Kia ora<sup>s. 9(2)(a)</sup>

Unfortunately the C17<sup>s. 6(b)(i)</sup> has been delayed. It is now due to land in Christchurch on Saturday 6 April, then Sunday will be a day of crew rest and they are planning to fly the final mission of the summer season on 8 April. This date may change if weather or maintenance dictate, however the C17 has the greatest operational tolerances of all the airframes that fly to the ice, so has the greatest chance of mission success.

Regarding the B757, this has an operational window that it is able to fly within. The last date the B757 could have flown to the ice was 22 March. After this the temperature and reducing daylight hours means it is outside of the operational window. The B757 attempted to fly south on both 18 and 19 March, but turned back both times (boomeranged) due to the forecast changing while the plane was in the air. The weather on 20/21/22 March was not suitable for flying and therefore the B757 was at the end of the time where it was viable for it to fly to the ice.

If you have any questions, please let me know

Ngā mihi Lucy

# MAJ Lucy Wright, BVSc (she/her)

Senior National Officer Op Antarctica, Headquarters Joint Forces New Zealand Te Ope Kātua o Aotearoa | New Zealand Defence Force M:<sup>S. 9(2)(a)</sup>

www.nzdf.mil.nz

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From: Sent:	s. 6(a) Thursday, 21 March 2024 4:56 a.m.		
То:	s 6(a)		
	; 'rccnz@maritimenz.govt.nz'; Paul \	Woodgate	
	(P.Woodgate@antarcticanz.govt.nz); <sup>s. 6(a)</sup>		
	Stevens (Scott Base)	Derek	
Cc:	s. 9(2)(a), s. 6(a)		
	s 6(a)	. s. 9(2)(a)	
	'; Gilmour, James, RADM; <sup>s. 6(a)</sup>	,	
	Wright, Lucy, MAJ; Scott, Andy, AIRCDRE; <sup>\$ 9(2)(a)</sup>	Derek Stevens (Scott	
	Base); Cannon, Mike, GPCAPT; 'cargo@scott.aq'; Attrill,	Rob, SQNLDR; AIRMOV CH;	
	Scott, Bradley, WGCDR; <sup>s. 6(a)</sup>		
Subject:	OP Antarctica Flight NMB624 Kiwi624 NO GO Message	(Unclassified)	

Good morning,

Today's Op Antarctica flight NMB624 (Kiwi624) is a NO GO due to wx at NZFX. Delayed 24 hours to 0800L 22 MAR 24.

Regards, s 9(2)(a)

Deputy Operations Officer, 40 SQUADRON RNZAF Te Tauaarangi o Aotearoa | Royal New Zealand Air Force

www.nzdf.mil.nz



From: <sup>s.9(2)(a)</sup> Sent: Thursday, 21 March 2024 5:06 a.m. To: Scott, Bradley, WGCDR <sup>s.9(2)(a)</sup>

s.6(a)

**Subject:** Antarctic Weather situation.

Morning Gents,

Just thought I'd send you an email for some additional context to help with SA on the Ice weather situation at the moment incase you field any questions.

The forecast deterioration in the TAF (02/04z) was below our limits for the weather window of 21 to 04z. I did consider the possibility of this weather system showing up later than forecast, and so called the forecaster <sup>s. 6(b)()</sup> to see what the chances were (so the aircraft could launch and start heading South in the hope that the 10am TAF forecasts the weather deterioration at a later timeframe than the 4am TAF). After discussion with him, he can already see the system within 200nm south of Minna Bluff and he expects that it will actually arrive an hour earlier than forecast.

I asked him about the next 24hrs, and it's not looking good, with a trough associated with the low pressure system that is sitting N of Ross Island causing strong winds and blowing snow. They have had a large amount of snow over previous 24hrs.

There is a weather window being forecast at this stage for Saturday, but he did say that the models are more inaccurate for that timeframe.

Let me know if any questions,

Cheers, s.9(2)(a)

From:	s 6(a)		
Sent:	Friday, 22 March 2024 8:16 a.m.		
To:	Scott, Andy, AIRCDRE		
Cc:	Cannon, Mike, GPCAPT; Scott, Bradley, WGCDR; <sup>\$ 9(2)(a)</sup>		
	s.9(2)(a) s. 6(a)		
Subject:	RE: Op Antarctica Options		

Morning Sir,

Thanks for your time this morning. Based off our conversation I advised SNO Op ANT:

"I can confirm that due to the end-of-season date (22 Mar 24) for safe B-757 aircraft operations to Antarctica, regrettably the B-757 is unable to provide further Op ANT support. Request you inform Ant NZ of this determination – thank you."

PSB for the background information, which was provided before the USAF C-17 was realised a viable option (this morning), <sup>s. 6(a)</sup>. SNO Op ANT has advised that the US has confirmed a C-17 <sup>s. 6(a)</sup> and they have started their plans to deploy the jet ISO Ant NZ redeploy of personnel.

<sup>s.6(a)</sup> will continue to work the C-130 MAS this morning in balancing Herc 02 engine starts / hours against assigned tasks – we'll advise IDC via separate correspondence.

V/r

s. 6(a)

Joint Air Operations Director, Headquarters Joint Forces New Zealand Te Ope Kātua o Aotearoa | New Zealand Defence Force

s.6(a)

www.nzdf.mil.nz



From: s. 6(a)

Sent: Thursday, 21 March 2024 4:16 p.m.

To: s 6(a)

Cc: Cannon, Mike, GPCAPT <sup>s.9(2)(a)</sup>

; Scott, Bradley, WGCDR

Subject: Op Antarctica Options Importance: High

Sir,

The following assessment has been conducted with information from 40SQN personnel, and includes information from SNO Op Ant. For your input and recommendation to ACC.

BCDR AK: FYI Sir, for awareness of discussion that is ongoing regarding support to Op Ant.

**BLUF**: 52 personnel remain on Antarctica, including 12 NZDF personnel. B757 window is closing, and Ant NZ will likely request C-130 support. This email is to allow consideration of options.

# Background:

40SQN SOPs define the last date for Ice Operations on the B757 as **22 Mar**. Considerable research has gone into developing this date, and it is due to many reasons - primarily weather and daylight. The risk of changing weather increases exponentially after this date based on studies by previous CO40.

Planning for Ice Flights over previous years has identified that the chance of a successful Ice Flight reduces significantly outside the Nov-Feb window. This is true for both the B757 and the C-130, noting that the C-130 is impacted to a lower extent regarding daylight hours (use of NVG possible).

# Weather:

The increased risk of weather deterioration outside of the Nov-Feb window has been identified on several occasions, most notably in October 2013 where the B757 was required to descend below published minima due to a change in weather conditions following PSR.

Weather forecasts have proven unreliable during operations this week, and has already resulted in two turn-backs for the B757 (18 and 19 Mar). On both occasions this was due to Freezing Fog, which is not being picked up by the forecasters low level moisture model.

Extremely low temperatures on Antarctica during March also result in increased difficulty conducting pre-flight and maintenance activities. On average around 20 days per month have temperatures lower than -20 degrees. Based on a 10kt wind chill, RNZAF guidelines detail "continuous work is not permitted" and "danger from freezing of exposed flesh within 1 minute".

In very cold temperatures on previous sorties, crew members have also experienced individual aircraft components failing (e.g. refuel panel, and engine components).

# Daylight:

Daylight hours remaining was a consideration for selection of 22 Mar, where a 0900 takeoff would give the ability to have 3 hours on the Ice, fly 1.5 hours north, then return to NZFX before sunset. Sunset moves 10 min earlier per day after 22 Mar, increasing risk by reducing the time available to conduct a turn-back if required.

If a turn-back option is not available, the risk significantly increases if there is a cargo hold fire, where the system is only certified to manage this for 195 minutes.

If there is unplanned maintenance, or delays on the Ice, the risk will be increased that the B757 may have to remain on the ground overnight, which could lead to further issues.

# **B757 Options:**

- NMB624 is scheduled to depart tomorrow. Weather forecast is not favourable
- Further risk assessment has been conducted, and it is determined that the B757 **could** conduct one further attempt on Saturday 23 Mar. A potential weather window has been identified, and the crew will modify departure time earlier than normal to facilitate this window. This will have the following impacts:
  - 24 hour delay to NUB596 (Army Project Convergence RTNZ), due to inability to augment both the Ice Flight and this task.
  - Potential impact to Warbirds Over Wanaka deploy. Consideration may need to be made for the aircraft to travel direct from Whenuapai to Wanaka.

# C-130 Options:

- NVG crew will be available (may need NVG option if turn-back required after dark, due time critical emergency)
- C-130 Risk register recommends the following for out of season operations:
  - Down and back sorties

- Engines remain running, and hot refuel is conducted (procedure is approved).
- Task could be conducted on either NZ7001 or NZ7002.
  - If NZ7001 used for Ice Flight, NZ7002 will likely run out of engine cycles mid-week (see additional information for NZ7002 limitations)
- Additional C-130 is required for ERS
  - o 1 x C-130 Scheduled to be in Australia 23 25 Mar. Is it acceptable to hold ERS from Australia?
  - If ERS from Australia is not an option, CIVAIR + Charter options will need to be investigated to return ASWEX and Ex Dugong personnel and equipment to NZ.
- Regardless of which C-130 was used, there is a reasonable risk of impact to WoW attendance (due to aircraft availability).

# Ant NZ Options:

- Limited contingency planning had occurred prior to our discussion today. There appeared to be a reliance on NZDF options.
- J35AT strongly recommended contingency scoping elsewhere should occur
  - A-319 has been ruled out by Ant NZ <sup>s. 6(b)(i)</sup>
  - Scoping for C-17 underway with NSF. The aircraft has already returned to the USA, <sup>s. 6(a), s. 6(b)(i)</sup>, so not an option.

# **Additional Information:**

- C-130 requires Ice preparation to occur.<sup>s. 6(a)</sup>
   Recommend conducting this following completion of NZH013 (mortar transport).
- NZ7002 limitations<sup>s. 6(a)</sup>
  - Sufficient hours remain for 1 x turn-back, 1 x successful sortie.
  - Limited impact to tasking on NZ7002
    - Some adjustment required to NZH635 to move Op Moa personnel to Auckland on 25 Mar.
    - <sup>s. 6(b)(i)</sup> PSR sits approx. 30 minutes closer to NZ than it would with NZ7001. We have operated the aircraft with this limitation during the season, however it is worth noting that there is a greater risk in the event of weather deterioration post PSR.
- 22 Mar has been communicated to Ant NZ as the last day for NZDF operations. The C-130 has not been offered as an option.
- Accommodation is a concern. Currently booked Friday night only, with limited options available in NZCH due to events (e.g. Warriors). Burnham could be an option.
- NZ7005 is planned to RTS early, however there are too many variables (e.g. engine runs, MCF) to confirm if this will be available by WoW or not.

# Recommendation:

- Recommend B757 last day for operations amended to 23 Mar.
- Recommend ACC consider C-130 option, balanced against consideration for ongoing NZDF support to Op Antarctica
- Recommend consideration for chargeback options if 5SQN and RNZN freight + personnel (NAH635) requires charter options to return to NZ.

Kind regards, s. 6(a)

J35AT - Air Transport Operations Headquarters Joint Forces New Zealand Royal New Zealand Air Force

www.nzdf.mil.nz

s.6(a)

<< OLE Object: Picture (Device Independent Bitmap) >>

From:	s. 6(a)	
Sent:	Friday, 22 March 2024 10:48 a.m.	
To:	Wright, Lucy, MAJ	
Subject:	RE: Change to RTNZ flight for LET and Log GAs	

#### Thanks for the heads up Ma'am,

Headquarters Joint Forces New Zealand Te Ope Kātua o Aotearoa | New Zealand Defence Force

s.6(a)

s. 6(a)

www.nzdf.mil.nz



From: Wright	t, Lucy, M/	ĄJ		
Sent: Friday,	22 March	2024	10:27 a.m	1
To: <sup>s 6(a)</sup> s.6(a)				

Subject: Change to RTNZ flight for LET and Log GAs

Good morning Gentlemen, <sup>S.9(2)(a)</sup>

The B757 hasn't flown today due to weather. 22 March was the last day that it could fly due to its operational limitations. A significant amount of work has been done by <sup>\$.6(a)</sup> this week to see if there was an alternative (ie C130) should the B757 not be able to complete its 2<sup>nd</sup> mission during its operational window. Unfortunately due to hours on the air frame and other tasking this was not possible.

NSF have stood up a C17 to fly the final mission for season 23/24. The C17 will leave CONUS on 29 Mar and is scheduled to do the ice flight on 4 April. This will see the RTNZ of the LET (9 pers) and the Log GAs (3 pers) on the flight.

NSF wanted to pass on their thanks to the RNZAF for their planning over the last week to try to identify a solution. They are very cognisant of the operational limitations of the air frames, and understand that nothing is guaranteed with ice flights!

Due to the 2 week window, the HTT augments will return to home locations for the interim and then surge back to support the C17 flight.

If you have any questions, please let me know

Ngā mihi

MAJ Lucy Wright, BVSc (she/her)

Senior National Officer Op Antarctica, Headquarters Joint Forces New Zealand Te Ope Kātua o Aotearoa | New Zealand Defence Force M: <sup>s.9(2)(a)</sup>

www.nzdf.mil.nz

<< OLE Object: Picture (Device Independent Bitmap) >>

From:	s 6(a)		
Sent:	Friday, 22 March 2024 8:01	. a.m.	
To:	Wright, Lucy, MAJ		
Cc:	s 6(a)	Scott, Bradley, WGCDR; <sup>s.9(2)(a)</sup>	
	s.9(2)(a)		
Subject:	FW: OP Antarctica Flight NMB624 Kiwi624 NO GO Message (Unclassified)		

Hi Lucy,

Following my discussion with ACC this morning, I can confirm that due to the end-of-season date (22 Mar 24) for safe B-757 aircraft operations to Antarctica, regrettably the B-757 is unable to provide further Op ANT support. Request you inform Ant NZ of this determination – thank you.

V/r

s. 6(a)	
Joint Air Operations Director, Headquarters Joint Forces Te Ope Kātua o Aotearoa   New Zealand Defence Force s.6(a) www.nzdf.mil.nz	New Zealand
DEFENCE FORCE	
From: <sup>s.6(a)</sup> Sent: Friday, 22 March 2024 4:54 a.m.	
To: <sup>s. 6(a)</sup>	
	; 'rccnz@maritimenz.govt.nz'
<rccnz@maritimenz.govt.nz>; Paul Woodgate (F</rccnz@maritimenz.govt.nz>	Woodgate@antarcticanz.govt.nz)
<p.woodgate@antarcticanz.govt.nz>; <sup>s. 6(a)</sup></p.woodgate@antarcticanz.govt.nz>	
	Derek Stevens (Scott Base) <sup>s.9(2)(a)</sup>
Cc: <sup>8. 6(a), s. 9(2)(a)</sup>	

ВАDM <sup>5.6(а)</sup>					Gilmour, James,
RADM <sup>s. 6(a)</sup> s. 6(a)		; Wright, Lucy, MA	(J <sup>s. 6(a)</sup>	Scot	tt, Andy, AIRCDRE
s. 6(a)	s.9(2)(a)			; Derek Stevens (	Service and the service of the servi
s.9(2)(a)	Cannon, Mike, Gl	PCAPT S.9(2)(a)		; 'cargo@sco	
<cargo@scott.aq>; At</cargo@scott.aq>			AIR	RMOV CH <sup>s. 9(2)(k)</sup>	;
Scott, Bradley, WGCD s. 6(a)		, s. 6(	a)		

Subject: OP Antarctica Flight NMB624 Kiwi624 NO GO Message (Unclassified)

Good morning,

Today's Op Antarctica flight NMB624 (Kiwi624) is a NO GO due to wx at NZFX.

Regards, s 9(2)(a)

Deputy Operations Officer, 40 SQUADRON RNZAF Te Tauaarangi o Aotearoa | Royal New Zealand Air Force

www.nzdf.mil.nz



s. 9(2)(a) Thursday, 21 March 2024 1:06 p.m. s<sup>6(a)</sup> RE: Antarctic Weather situation.

Hey again <sup>s.6(a)</sup>

Further to my last -

- NVG "A" is all that's required for ice.
- OpsO has an accommodation plan.

Let me know any further questions that have come up and I'll get some answers.

s. 9(2)(a)	
From: <sup>5.6(a)</sup>	
Sent: Thursday, 21 March 2024 10:54 a.m.	
To: <sup>s.9(2)(a)</sup>	
Cc: \$ 9(2)(a)	; Scott, Bradley, WGCDR
s 9(2)(a) . s.6(a)	
Subject: RE: Antarctic Weather situation.	
Importance: High	

Morning<sup>s 6(a)</sup>

I understand <sup>see has</sup> forwarded to you WRT the C-130 considerations. I've been investigating from a tasking / aircraft availability, and can offer the below:

Currently we only have two C-130 available, with limitations on NZ7002<sup>s.6(a)</sup> . As we are the only operator conducting Ice Flights, we are also holding ERS for the Ice. We will need to have both these aircraft serviceable.

Should we conduct an Ice Flight, I would recommend the use of NZ7002. There would be significant tasking impacts if we took NZ7001 to the Ice, due to the limited cycles on NZ7002. There are sufficient hours to conduct 1 x turn-back, and 1 x successful flight.

NZH753 would need to be incorporated into NAH635, with the result being an early start out of YSRI (unless the hard time for Op Moa pers has flex – currently under investigation).

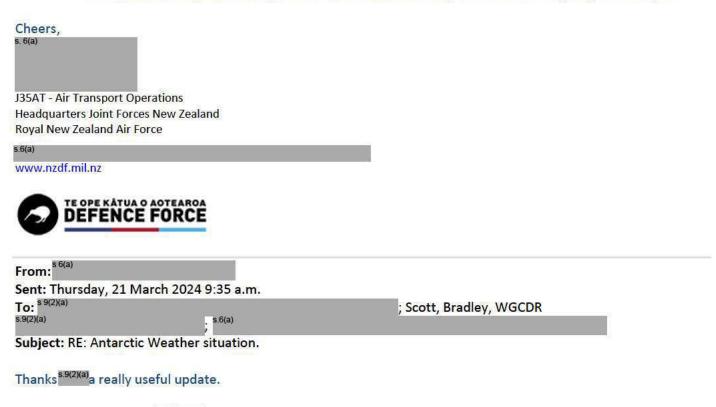
Third order effects would be the increased reliance on NZ7005 RTS. Potential impact of 1 x C-130 available for WoW, Ex Skytrain, or both of those activities.

Ice preparation would need to occur tomorrow. Earliest deploy to NZCH could be Saturday, with a launch as early as Sunday?

#### What I need from you please:

- Crewing considerations.
  - NVGs will probably need to be considered due reducing daylight
  - o Crew qualifications do we have the right people who can do this?

- Individual workload / risk. Pending Captain qualifications / availability, if it would have to be then there should be some mention of his current workload (e.g. WoW display pilot)
- Risk assessment for C-130 operations to the Ice.
- Hopefully there should be an RMP or similar for MEDEVAC flights that you could lean on?
- Admin issues
  - I understand accommodation is an issue could be worth the OPSO investigating this further.



Just been chatting with <sup>s. 6(a)</sup> who do some work wrt what a C-130 request would look like. ACC is open to discussing, but needs to know:

- What is ANT NZ contingency post 22 Mar end-of-season date if Boeing flight 6/6 is a NO GO?
- What are the factors that determine the 22 Mar end-of-season date?
- What are the specific considerations (incl. risk) for a C-130 conducting an ICE CUBE post 22 Mar?
- What are the second / third order effects if a C-130 is tasked to support post 22 Mar (and therefore what are the charge back opportunities to ANT NZ)?

<sup>s 9(2)(a)</sup>these points aren't for you to answer per se (although you may have an idea of ANT NZ contingency options), but gives you an idea of where the JAOCs thinking is at the moment.

as discussed, please have a chat with SNO Op ANT to confirm what messaging ANT NZ has received regarding NZDFs ability (i.e. absolutely no guarantees) post 22 Mar? Thanks mate

V/r

s. 6(a)

JAOC Director

s 6(a) Thursday, 21 March 2024 9:50 a.m. s. 9(2)(a) RE: Consids for Ice stuff

Hey mate,

Thanks for sending that through.

I spoke with <sup>s.6(a)</sup> this morning, and I need to answer some questions around the end of season date for ACC to understand.

I understand it's largely driven by daylight considerations, and temperature on the Ice, but I'm getting questions such as 'what makes 22<sup>nd</sup> March different from 23<sup>rd</sup> March' etc. Noting we have to draw a line somewhere, and there's always considerable risk operating the Boeing to Antarctica at the fringes of the season...

I think we may need to do further risk assessment for operations past tomorrow sorry.. Do you have a copy of the current RMP that I could please look at?

Don't worry anything further on impact to tasking next week, I can take that from the below email.

Cheers, s. 6(a)

J35AT - Air Transport Operations Headquarters Joint Forces New Zealand Royal New Zealand Air Force

s.6(a)

www.nzdf.mil.nz



From:<sup>s. 9(2)(a)</sup> Sent: Thursday, 21 March 2024 7:24 a.m. To:<sup>s 6(a)</sup> Subject: Consids for Ice stuff

Morning mate,

Some consids from me to factor into your decision around ice options

weather forecast not looking great tomorrow. There is a small weather window forecast at this stage for Saturday morning according to the forecaster but he did say that this could change quickly with the models.
This weekend in Christchurch is the Warriors game, plus Sail GP. This means that there is literally no accom avail. Yesterday our OPSO rang all the hotels in chch and was able to secure rooms for tonight (were split between hotels) but Friday night is not looking like there is accom. There is the option of Burnham which we haven't looked into yet.

- NUB we can leave on Sat arvo without affecting too much on the schedule, but if we fly to the ice on Saturday then the task will need to move right. I can't make it work with crews to have an augmented ice

crew, a slip crew to fly plane to WP on Sat night and then an augmented crew to fly the NUB. We don't have enough people. Only other option would be to fly the NUB crew to CH to depart from here but Accom is going to be an issue, and unsure if there is any WP freight.

- We will need to get into risk assessment today if there is a chance we are going to be flying on Saturday given it is outside the season window that is covered by the current ORM framework.

s. 9(2)(g)(i)

Give me a call if you need any further info before the ACC meeting

Cheers s.9(2)(a)

2	
From:	s 6(a)
Sent:	Thursday, 21 March 2024 5:31 p.m.
To:	s 6(a)
Subject:	FW: Op Antarctica Options
Importance:	High
<sup>s.6(a)</sup> FYI:)	

From: <sup>s.6(a)</sup>	
Date: Thursday, 21 Mar 2024 at 4:16 PM To: <sup>s.6(a)</sup>	
Cc: Cannon, Mike, GPCAPT <sup>\$ 9(2)(a)</sup>	, Scott, Bradley, WGCDR
s 9(2)(a)	

**Op Antarctica Options** 

Sir,

The following assessment has been conducted with information from 40SQN personnel, and includes information from SNO Op Ant. For your input and recommendation to ACC.

BCDR AK: FYI Sir, for awareness of discussion that is ongoing regarding support to Op Ant.

BLUF: 52 personnel remain on Antarctica, including 12 NZDF personnel. B757 window is closing, and Ant NZ will likely request C-130 support. This email is to allow consideration of options.

# Background:

40SQN SOPs define the last date for Ice Operations on the B757 as **22 Mar**. Considerable research has gone into developing this date, and it is due to many reasons - primarily weather and daylight. The risk of changing weather increases exponentially after this date based on studies by previous CO40.

Planning for Ice Flights over previous years has identified that the chance of a successful Ice Flight reduces significantly outside the Nov-Feb window. This is true for both the B757 and the C-130, noting that the C-130 is impacted to a lower extent regarding daylight hours (use of NVG possible).

# Weather:

The increased risk of weather deterioration outside of the Nov-Feb window has been identified on several occasions, most notably in October 2013 where the B757 was required to descend below published minima due to a change in weather conditions following PSR.

Weather forecasts have proven unreliable during operations this week, and has already resulted in two turn-backs for the B757 (18 and 19 Mar). On both occasions this was due to Freezing Fog, which is not being picked up by the forecasters low level moisture model.

Extremely low temperatures on Antarctica during March also result in increased difficulty conducting pre-flight and maintenance activities. On average around 20 days per month have temperatures lower than -20 degrees. Based on a 10kt wind chill, RNZAF guidelines detail "continuous work is not permitted" and "danger from freezing of exposed flesh within 1 minute".

I have discussed with <sup>s.6(a)</sup>, and he confirmed that the 'Ice Season' as defined by 40SQN concludes on 22 Mar (rather than 21 Mar as previously advised). I have reviewed ACCs approval to operate with an extended, augmented crew day, which covers the above 'Ice Season' rather than specific dates.

Noting the above, if the B757 flight is not successful tomorrow I intend to task them for another attempt on Friday. The forecast is for an improvement tonight, however recent forecasts have not proved reliable (resulting in turn-backs).

If Friday is also not successful, Ant NZ has signalled that they will request NZDF support to get the remaining personnel off the Ice. There are approx. 50 pers (1 x C-130 flight) that need to get home. We are currently the only option, as the C-17s have returned to USA,  $^{s. 6(b)(i)}$ .

There will be a significantly increased risk for B757 to continue operations from 23 Mar. Reducing daylight and very cold temperatures are significant factors.

# Request advice from ACC as to whether a C-130 option will be considered by NZDF if B757 flights are not successful.

There are several complicating factors for C-130.

s. 6(a)

. There

would be maintenance issues to consider on both NZ7002 and NZ7001, however this <u>could</u> be achieved. My intent if required would be to use NZ7002, which would allow NZ7001 to continue other planned tasking. The hours remaining would permit one turn-back, and one successful sortie. Following that the aircraft would essentially be a pumpkin until it enters phase.

There is a significant volume of C-130 tasking over the next week, including ASWEX re-deploy, Ex Dugong Re-deploy, and WoW support tasking.

NZ7002 requires an engine change once all engine cycles are complete. There are several more considerations that need to be considered before this can occur, however a primary driver will be whether C-130 is an option for Ice Flights.

Kind regards, s. 6(a)

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s.6(a) www.nzdf.mil.nz



From:	s 6(a)		
Sent:	Wednesday, 20 March 2024 12:51 p.m.		
To:	Scott, Bradley, WGCDR; <sup>s.9(2)(a)</sup>		
Subject:	FW: Op Antarctica Flight 6		
Importance:	High		
Tracking:	Recipient	Read	
	Scott, Bradley, WGCDR	Read: 20/03/2024 1:03 p.m.	
	s.9(2)(a)		
		Read: 20/03/2024 1:44 p.m.	

Sir, <sup>s.6(a)</sup> – FYI.

JAOC Dir will discuss with ACC, and will let you know once I have a response. (May not come today due to meeting).

I don't think we should pre-empt Ice preparation on a C-130 at this stage. Noting that Friday is an option for the B757, the C-130 Ice Prep could occur Friday, for a shot at the Ice the following week (if required).

I also understand Maint is pro-actively seeking guidance around the engine change on NZ7002. <sup>s. 9(2)(g)(i)</sup>

Cheers, s. 6(a)

J35AT - Air Transport Operations Headquarters Joint Forces New Zealand Royal New Zealand Air Force

s.6(a)

www.nzdf.mil.nz



From:<sup>s.6(a)</sup> Sent: Wednesday, 20 March 2024 12:25 p.m. To:<sup>s 6(a)</sup> Cc: <sup>s 6(a)</sup> Subject: Op Antarctica Flight 6 Importance: High

Good afternoon Sir,

Following the NO-GO to the Ice today, the window for Op Ant to be conducted on the B757 is beginning to close.

#### s. 6(a)

J35AT - Air Transport Operations Headquarters Joint Forces New Zealand Royal New Zealand Air Force

s.6(a)

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<< OLE Object: Picture (Device Independent Bitmap) >>

Scott, Bradley, WGCDR Wednesday, 20 March 2024 10:24 a.m. <sup>s 6(a)</sup> s.9(2)(a) Ice prep C-130

s. 6(a)

For considering your option sets.

MFC advises two shifts to ICE prep the C-130 so I assume one full day really.

If we were to be in position to have a crack Friday, (instead of a Boeing) we would probably need to commence ice Prep tonight, to allow for a C-130 to get to CH tomorrow afternoon/evening.

s. 9(2)(g)(i)

Nāku noa, nā.

Brad

Wing Commander Bradley Scott (he/him) Commanding Officer No.40 Squadron

RNZAF Base Auckland Te Ope Kātua o Aotearoa | New Zealand Defence Force

s. 9(2)(a)

www.nzdf.mil.nz



Wright, Lucy, MAJ Wednesday, 20 March 2024 9:35 a.m. Wright, Lucy, MAJ;<sup>s.6(a)</sup> Conversation with Wright, Lucy, MAJ

Hi<sup>s. 6(a)</sup> just about to bounce into a meeting but wondering if we could have a catch up after that re ice flights? I understand the weather is a bit iffy tomorrow as well, depending on which forecast you look at!

s. 6(a) 9:22 a.m.:

From:	s 6(a)
Sent:	Wednesday, 20 March 2024 4:49 a.m.
To:	s. 6(a)
	; 'rccnz@maritimenz.govt.nz'; Paul Woodgate
	(P.Woodgate@antarcticanz.govt.nz); <sup>s.6(a)</sup>
	Derek
	Stevens (Scott Base)
Cc:	s. 6(a), s. 9(2)(a)
	; Gilmour, James, RADM; <sup>s. 6(a)</sup>
	Wright, Lucy, MAJ; Scott, Andy, AIRCDRE; <sup>s 9(2)(a)</sup> ; Derek Stevens (Scott
	Base); Cannon, Mike, GPCAPT; 'cargo@scott.ag'; Attrill, Rob, SQNLDR; AIRMOV CH;
	Scott, Bradley, WGCDR; <sup>s. 6(a)</sup>
Subject:	OP Antarctica Flight NMB624 Kiwi624 NO GO Message (Unclassified)

Good morning,

Today's Op Antarctica flight NMB624 (Kiwi624) is a NO GO due wx at NZFX. Delayed 24 hours to 0800L 21 MAR 24.

Regards, s.9(2)(a)

Deputy Operations Officer, 40 SQUADRON RNZAF Te Tauaarangi o Aotearoa | Royal New Zealand Air Force



From:	s 6(a)
Sent:	Tuesday, 19 March 2024 4:12 p.m.
To:	s. 6(a)
Subject:	FW: OP ANT SUMMARY 2018 unclassified
Attachments:	image001.png; image002.jpg; ima <mark>g</mark> e003.jpg; image004.jpg; image005.jpg; image006.jpg; image001.png

s.6(a)

Below is the detail I provided in 2018 regarding OP ANT planning considerations.

s. 6(a)

Director Operations, Headquarters Joint Forces New Zealand Te Ope Kātua o Aotearoa | New Zealand Defence Force

s.6(a)

www.nzdf.mil.nz



From:<sup>s.6(a)</sup> Sent: Monday, 21 November 2022 4:31 p.m. To:<sup>s. 6(a)</sup> Cc: Subject: FW: FW: OP ANT SUMMARY 2018 unclassified

-----Original Message-----From: <sup>s.6(a)</sup> Sent: 9 April 2019 1:33 PM To: <sup>s.6(a)</sup> s.6(a)

CC: \$ 9(2)(a)

Subject: FW: OP ANT SUMMARY 2018 unclassified

Gents,

To answer the question from Ant NZ, please see below:

#### Planning Considerations for NZDF Fixed Wing Seasonal Support to Antarctica

While the C-130 is capable of providing support to Antarctic operations all year round, weather conditions on the continent make it inefficient to plan routine flights outside of the period 01 November to 28 Feb. The chance of a successful flight reduces significantly outside of the Nov-Feb window, requiring aircraft and crew to spend significantly more time waiting for suitable weather, while not being available to conduct other NZDF outputs. The

same operating window applies to the B-757, while recent experience also shows that warmer conditions between December and January increase the risk of the runway strength deteriorating below that suitable for B-757 operations.

Additionally, outside of the Nov-Feb period, maintenance and pre-flight duties become increasing difficult, as the reduced temperatures from March to October result in significant additional risk of cold weather injuries. Over this period, around 20 days a month have temperatures of -20 degrees or colder. Based on 10kts of wind chill, RNZAF guidelines for work in cold temperatures detail that "continuous work is not permitted" and "danger from freezing of exposed flesh within 1 minute". These factors increase the risk of an aircraft spending significant time on the continent awaiting repair.

If operations are required outside of the Nov-Feb period, noting the increased risk of delayed missions, the primary consideration is having suitable daylight hours to obtain sufficient visual meteorological observations to proceed past PSR. The reducing daylight hours limit the effective window to between 11 August – 03 May for the C-130, and 01 September – 11 April for the B-757. I wouldn't however be comfortable using these dates given the weather conditions, but a compromise would potentially be opening the window to October to March, with March being preferable over October given the combination of higher winds and low temps in October.

## Supporting Data

#### Weather

Following a B-757 flight on 07 October 2013 that was required to descend below published minima in order to land at Pegasus Field, TAIC conducted an investigation to determine the causal factors (Inquiry AO-2013-009). The report states that NIWA found that "there is a marked deterioration in average weather conditions outside of the period November-February" (para 4.5.6) and that "there is an increased likelihood of weather conditions deteriorating below minima early in the summer season" (para 1.8). The tables below highlight this:



#### **Temperature**

The first graph below shows the maximum monthly temperatures for William's Field, and the table below is from the 'RNZAF Guidelines for Prevention and Management of Cold weather Injuries'. Combined, they indicate that from April (mean average of -22degrees) until September (mean average of -25degrees) at minimum approx. 20days a month would have a temperature of -20 degrees or colder. Based on 10kts of wind chill, "continuous work is not permitted" and "danger from freezing of exposed flesh within 1 minute". This gives a quick view into the difficulties

of conducting post/pre- flight duties and any ground rectification work which may be required in these extreme conditions.

The temperatures for March and October would result in significant additional risk of cold weather injuries, it can be seen form this graph that the desirable temperature ranges are achieved during the period 01 Nov-end of Feb.

×

## Wind Factors

High winds can limit operations by either being above crosswind landing limits, or by lifting snow from the surface and reducing visibility. Wind above 15 knots can lift fresh snow, while wind above 25-30 kts lifts older snow.

Conducting flights into April would give approx. 7 days a month when the wind could be out of cross wind limits high. (Using RCR8 and 80%)

August and September have approx. 9 days when it would be out of limits high, this then increases in Oct and Nov increasing to approx. 13 days a month.

Also of note; after a period of high winds the runway is often unserviceable for days at a time once the winds have died down.

×

## **Daylight Hours**

#### <u>B757</u>

Seven hours of daylight is the minimum required to safely conduct B757 operations to Antarctica. This is based on using a minimum of three hourly visual observations over a two hour period leading up to PSR. For PSR2D NZDN seven hours is made up as follows:

At PSR typically 1:16 remaining flight time – (Max Fuel, payload limiting scenario 14.8T). Two hours on ground.

1:46 EET after airborne to hold NZFX as an alternate (before NZDN can be held as an EDTO alternate).

Daylight hours available: 11 April – daylight 0923 to 1623 equals 6hr + 59m 01 September – daylight 0923 – 1625 equals 7hr + 02m Therefore 01 September to 11 April is the daylight limiting operating window for the B-757.

Note: These times are for daylight and are taken from MCT to ECT. Using nautical twilight gives you an extra two hours either side – but this would be a very poor light. A week later, and the daylight has reduced to six hours.

## C-130 (using an overnight flight)

5hr Light Window Required

Based on 2hr prior to PSR 2 hour post PSR transit, and 1hr post landing to complete taxi and ground manoeuvring having suitable (but minimal) light.

This would give a light window of the  $11^{\text{th}}$  August –  $3^{\text{rd}}$  of May. Departure the next day would be acceptable as you would need a minimum of 4hr's light. Based on 2hrs positive Ob's prior to airborne and then 2hrs post ETD (as per SOP's).

If you have any questions, please fire them my way.

<sup>s 6(a)</sup> Tuesday, 19 March 2024 2:12 p.m. Wright, Lucy, MAJ RE: contingency planning

Hey Lucy,

Just spoke to<sup>5.9(2)(a)</sup> before, and will look into potential contingencies. There's a whole lot of questions, particularly around C-130 availability at the moment.

Will try have a chat with you tomorrow at some stage ③

Cheers,

s. 6(a)

J35AT - Air Transport Operations Headquarters Joint Forces New Zealand Royal New Zealand Air Force

s.6(a) www.nzdf.mil.nz



From: Wright, Lucy, MAJ Sent: Tuesday, 19 March 2024 1:48 p.m. To: <sup>s 6(a)</sup> Subject: contingency planning

Hi <sup>s. 6(a)</sup>

Hope you aren't too crook! With the 2<sup>nd</sup> boomerang, I wanted to know when was a good time to start thinking contingencies, given the B757 has Thursday as its last shot?

There are 52 pax to come north from MCM, so a herc load exactly

Flick me an email or give me a yell

Cheers Lucy

#### MAJ Lucy Wright, BVSc (she/her)

Senior National Officer Op Antarctica, Headquarters Joint Forces New Zealand Te Ope Kātua o Aotearoa | New Zealand Defence Force M: <sup>\$ 9(2)(a)</sup>

Monday, 18 March 2024 11:09 a.m.

s 6(a)

s 6(a)

FW: OP Antarctica Flight NMB337 (Kiwi 337) TURNBACK MESSAGE (Unclassified)

Gents, FYI

s. 6(a)

Headquarters Joint Forces New Zealand

Te Ope Kātua o Aotearoa | New Zealand Defence Force

s.6(a)

www.nzdf.mil.nz



From: s.6(a)

Sent: Monday, 18 March 2024 11:06 a.m.

To: s 6(a)

Subject: FW: OP Antarctica Flight NMB337 (Kiwi 337) TURNBACK MESSAGE (Unclassified)

Good morning,

NMB 337 (KIWI 337) is a TURNBACK due wx at NZFX. ETA NZCH 1215L

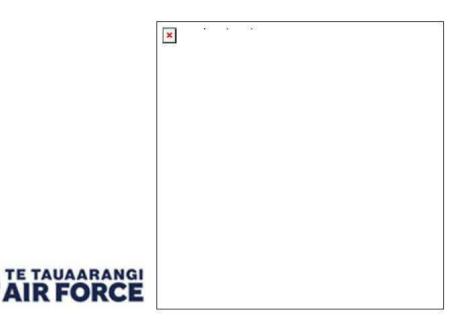
Anticipate a 0800L departure 19 MAR. Timings to be confirmed later today.

Regards, s 9(2)(a)

s 9(2)(a)

Operations Officer - 40SQN, No 40 Squadron RNZAF Te Tauaarangi o Aotearoa | Royal New Zealand Air Force

s.6(a)



From: <sup>s.6(a)</sup>	13	
Sent: Monday, 18 March 2024	10:50 a.m.	
To: <sup>s. 6(a)</sup>	20.00 2000	
		; 'Paul
		<u>ticanz.govt.nz</u> >; 'rccnz@maritimenz.govt.nz'
< <u>rccnz@maritimenz.govt.nz</u> >; <sup>s</sup>	: 6(a)	
Cc: <sup>s. 6(a), s. 9(2)(a)</sup>		
s. 6(a), s. 9(2)(a)	Wright, Lucy, MAJ <sup>s. 6(a), s. 9(2)(a)</sup>	
· Cor	non Mike CDCADT \$ 9(2)(a)	Scott Andy AIRCORE
, Car s 9(2)(a)	nnon, Mike, GPCAPT <sup>s 9(2)(a)</sup>	; Scott, Andy, AIRCDRE
	s 0(2)(2)	; Attrill, Rob, SQNLDR
s.9(2)(a)	Scott, Bradley, WGCDR <sup>s.9(2)(a)</sup>	s. 6(a)
s. 6(a)		

Subject: OP Antarctica Flight NMB337 (Kiwi 337) TURNBACK MESSAGE (Unclassified)

Good morning,

NMB 337 (KIWI 337) is a TURNBACK due wx at NZFX. ETA NZCH 1215L

Anticipate a 0800L departure 19 MAR. Timings to be confirmed later today.

Regards, s 9(2)(a)

Deputy Operations Officer, 40 SQUADRON RNZAF Te Tauaarangi o Aotearoa | Royal New Zealand Air Force



From:	s 6(a)	
Sent:	Monday, 18 March 2024 8:52	2 a.m.
То:	s. 6(a)	
		'Paul Woodgate
	(P.Woodgate@antarcticanz.c	jovt.nz)'; 'rccnz@maritimenz.govt.nz';
Cc:	s. 6(a), s. 9(2)(a) s. 6(a), s. 9(2)(a)	
		Scott, Andy, AIRCDRE;
	s.9(2)(a)	Gilmour, James, RADM; Cannon,
	Mike, GPCAPT; Wright, Lucy,	MAJ; <sup>s. 6(a)</sup>
	s 9(2)(a) cargo (	scott.aq'; Attrill, Rob, SQNLDR; Scott, Bradley, WGCDR;
	s. 6(a)	
Subject:	Op Antarctica NMB337 (KIW	I 337) OFF-DECK REPORT (UNCLASSIFIED)

Good morning all, rank acknowledged,

NMB337 has departed NZCH at 0833L. ETA 60S 1111L ETA NZFX 1348L PSR 1215L 6 PAX 130KG FREIGHT

Regards, s 9(2)(a)

Deputy Operations Officer, 40 SQUADRON RNZAF Te Tauaarangi o Aotearoa | Royal New Zealand Air Force



From:	s 6(a)
Sent:	Monday, 18 March 2024 5:02 a.m.
To:	s. 6(a)
	; 'rccnz@maritimenz.govt.nz'; 'cargo@scott.aq'; Paul Woodgate
	(P.Woodgate@antarcticanz.govt.nz); <sup>s.6(a)</sup>
	; Derek Stevens (Scott Base)
Cc:	s. 6(a), s. 9(2)(a)
	Scott, Bradley, WGCDR;
	s. 6(a)
	Gilmour, James, RADM; Cannon, Mike, GPCAPT; Wright, Lucy, MAJ;
	s. 6(a) ; Scott, Andy, AIRCDRE; Derek Stevens (Scott
	Base); Attrill, Rob, SQNLDR; <sup>s. 6(a)</sup>
	s. 6(a)
Subject:	OP Antarctica Flight NMB337 (Kiwi337) GO MESSAGE 18 MAR 24 (Unclassified)

Good morning,

Flight NMB337 (KIWI 337) today is a GO with a 0800L departure. Timings brought forward one hour due Wx forecast.

Confirm WX brief via Zoom at 0555L.

Regards, s 9(2)(a)

Deputy Operations Officer, 40 SQUADRON RNZAF Te Tauaarangi o Aotearoa | Royal New Zealand Air Force



Wright, Lucy, MAJ Thursday, 14 March 2024 1:34 p.m. <sup>s. 6(a)</sup>

pax update for first B757 flight

Good afternoon Gentlemen

I've had some comms from MCM scheduling and the intent of the MCM Area Manager and NSF station manager is to put max pax (105) on the flight tomorrow. At this stage they haven't put out an APA yet but thought I'd give you an update after the numbers I sent through this morning

Cheers

MAJ Lucy Wright, BVSc (she/her) Senior National Officer Op Antarctica, Headquarters Joint Forces New Zealand Te Ope Kātua o Aotearoa | New Zealand Defence Force M: <sup>\$ 9(2)(a)</sup>



Wright, Lucy, MAJ Thursday, 14 March 2024 12:12 p.m. <sup>s 6(a)</sup> RE: B757 Ice Flights

# Hey<sup>s. 6(a)</sup>

Thanks for the email, and likewise, I've been slack at keeping in touch – I was at staff college in Canberra last week so that was using all my brain cells and then some!

Are you free for a chat at some point today? I'm clear whenever suits

Cheers Lucy

#### MAJ Lucy Wright, BVSc (she/her)

Senior National Officer Op Antarctica, Headquarters Joint Forces New Zealand Te Ope Kātua o Aotearoa | New Zealand Defence Force M:<sup>\$.9(2)(a)</sup>

www.nzdf.mil.nz



From:<sup>s.6(a)</sup> Sent: Thursday, 14 March 2024 11:34 a.m. To: Wright, Lucy, MAJ<sup>s.6(a)</sup> Subject: B757 Ice Flights

Hey Lucy,

Sorry I feel like it's been a long time since we caught up over the phone. It's been hectic here over the last few weeks with staff shortages, and <sup>s. sea</sup> being away on an overseas exercise! Enough excuses though..

I've spoken with 40SQN and the ACC regarding the final two Ice Flights scheduled for the B757, and I wanted to confirm that our last day for operations within this block is **21 MAR**.

The risk assessment for the 23/24 season covers until 21 Mar, where it was deemed that the level of risk significantly increases (primarily due to hours of daylight available, and weather conditions). Also of note, this is our only B757 which is heavily committed to tasking from 23 Mar onwards, so the aircraft needs to return to Whenuapai on 22 Mar.

Hopefully this doesn't come as a surprise, and apologies I haven't communicated this hard date earlier.

Is there any information you're currently waiting on from me regarding any other questions?

Cheers,

J35AT - Air Transport Operations Headquarters Joint Forces New Zealand Royal New Zealand Air Force

s.6(a)

www.nzdf.mil.nz

<< OLE Object: Picture (Device Independent Bitmap) >>

Wright, Lucy, MAJ Wednesday, 13 March 2024 11:17 a.m. <sup>s. 6(a)</sup> Pax for first B757 flight

**Morning Gentlemen** 

Looking at the APA, there are 58 pax scheduled on the flight for Friday

Cheers

#### MAJ Lucy Wright, BVSc (she/her)

Senior National Officer Op Antarctica, Headquarters Joint Forces New Zealand Te Ope Kātua o Aotearoa | New Zealand Defence Force M:<sup>\$.9(2)(a)</sup>

