

AIR FORCE NEWS

#232

FEB | 21

DISASTER STRIKES



A PLAN IS FORMED

04 SETTING THE SCENE

06 THE WORK BEGINS

WITNESS TO DESTRUCTION

08 FIRST FLIGHT

10 PLAN OF ACTION

12 ESTABLISHING THE INFORMATION
HOTLINE

14 IMAGES OF DESTRUCTION

16 DAMAGE ASSESSMENT

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BEHIND THE SCENES

- 18 SPECIAL DELIVERY
- 20 SEND IN THE SPECIALISTS
- 21 BUSINESS AS USUAL FOR BUSY BASE

WORKING THROUGH THE NIGHT

- 22 THE SUM OF ALL PARTS
- 24 CALL TO ACTION
- 26 LOADING UP

WHEELS UP

- 28 THE WORLD ROADMAP
- 29 TELLING THE STORY
- 30 FINAL CHECKS
- 32 HELP ON THE WAY
- 34 THE NEXT STEP...





SETTING THE SCENE

Tēnā koutou katoa and welcome to the first *Air Force News* of the year. This special issue is dedicated to some of the most important work we do at this time of year – how an overseas Defence Force Humanitarian Aid and Disaster Relief (HADR) operation is conducted.

Many of you would have seen our aircraft and our people on the news, delivering aid or providing support to our Pacific Island neighbours. We provide assistance like this almost every year following government requests for assistance after a natural disaster or a severe weather event.

It's important to note that although the RNZAF support to these operations is significant, the response itself is led by the Ministry of Foreign Affairs and Trade (MFAT). The first point into Air Force, Navy or Army, resources is through the Strategic Commitments and Engagement Branch, into Headquarters Joint Forces New Zealand (HQJFNZ) at Trentham, which coordinates the response required based on the request from MFAT.

There is no generic response to a HADR mission, so we prepare for a range of options and variables. The cyclone season is typically November through to May, during which there could be eight to 10 cyclones of various intensities in the South Pacific. Every year we work with MFAT and NIWA to get an annual cyclone forecast, which is based, in part, off the sea temperature in South America.

In addition, the Headquarters Joint Force New Zealand Meteorological Officer provides daily reports on the regional weather situation. During cyclone season the NZDF conducts specific preparations to ensure our equipment and people are available and ready to deploy if, and when they are needed.

The scenario we have used in this issue isn't real, but it is based on years of actual experiences we've had responding to HADR missions in the Pacific.

The scenario starts with a request for assistance from MFAT to Defence for the Airborne Surveillance and Response Force (ASRF) to survey the weather damage done to a South Pacific island. The information collected and the products produced by supporting units such as No. 230 Squadron, enable decisions to be made, and an intelligence-led response. The government of the affected nation can use this information to decide what other assistance or support they may need.

The Air Force holds a National Contingency (NATCON) response 24/7, 365 days of the year, so there is always an aircraft and personnel ready to deploy promptly any time, day or night. In this HADR scenario the ASRF can use their NATCON aircraft and crew to deploy north and conduct a topographical survey of the damage caused to the tropical cyclone-affected island.

This is where our scenario begins...

AIR COMPONENT COMMANDER, HQJFNZ
AIR COMMODORE SHAUN SEXTON

0700

The work begins

A storm has been brewing in the South Pacific. Through the evening personnel at Headquarters Joint Forces New Zealand have been tracking its progress as it charts towards a Pacific island. Its size quickly intensifies until it reaches a Category 5 Tropical Cyclone. In the wee hours of the morning the storm hits the island and major damage to its villages and infrastructure are all but assured. The New Zealand Defence Force readies itself for action.

As the tropical cyclone increases in strength MetService provides continued updates to the Ministry of Foreign Affairs and Trade (MFAT), which passes that information on to government agencies including the Defence Force. The island's government puts in a request for help to MFAT, which, as the lead agency for the New Zealand response to humanitarian events, convenes a planning group. This is comprised of representatives from the New Zealand Defence Force, the Department of the Prime Minister and Cabinet, Fire and Emergency, New Zealand, the National Emergency Management Agency, New Zealand Police and the Ministry of Health.

Strategic Commitments and Engagement Branch (SCE Br) and planners from Headquarters Joint Forces New Zealand (HQ Joint Forces) are the first points of contact for MFAT in Wellington, in anticipation that we could be requested to support a relief response.



The Defence Advisor posted to the Pacific island, working for SCE Br also works closely with MFAT officials and local authorities on the island to give advice and information about the requests.

The planning group develops a response action plan which is informed by the New Zealand High Commission in country, an understanding of the impacts, the nature of the request for assistance from the impacted country and any domestic needs and considerations. The action plan is then checked by an Emergency Task Force of senior leadership across government agencies before going to the Minister of Foreign Affairs and the Minister of Defence for approval.



During the planning process SCE Br focusses on strategic-level considerations and works closely with HQ Joint Forces, which explores if and how we can provide support with the assets and platforms available. In most instances the first assets used will be from the Air Force, a P-3K2 Orion or a C-130 Hercules. This is due to both the speed of the aircraft being able to get to the Pacific location and the ability of the Air Force to quickly assess damage and/or deliver immediate aid as requested. Experts and the host Government can then assess it against their people's needs.

SCE Br seeks approval from the Chief of Defence Force (CDF), based on the work of the All-of-Government planning group. This approval is formalised through a CDF directive to the Commander of HQ Joint Forces New Zealand, authorising the use of NZDF capability to provide assistance.

As the lead agency and in response to a request from the Pacific island, MFAT requests a surveillance flight by a Defence Force aircraft to assess damage, as soon as the cyclone has passed.

Throughout the mission, HQ Joint Forces updates CDF on how the practical conduct of the operation is progressing and SCE Br continues to provide strategic-level advice and updates to the Minister of Defence.

Immediately following a disaster, humanitarian organisation New Zealand Red Cross coordinates with the International Federation of Red Cross and Red Crescent Societies (IFRC) office in Suva, Fiji.

Following this is a partner-call between the IFRC, New Zealand Red Cross and Australia Red Cross where they discuss and agree how they can respond in a collaborative effort.

"At the same time I'm liaising with MFAT," New Zealand Red Cross general manager international (acting), Vivienne Euini said.

"In my discussion with MFAT, I relay all relevant information shared in our partner-call, including the affected population's needs that our assessment teams on the ground have identified."

The New Zealand Red Cross asks MFAT if it is able to support the organisation in sending stock, held in a warehouse in Manukau, to the island. MFAT is also asked if it can give a financial contribution that can facilitate replenishing the prepositioned stock that will be sent or support Red Cross' response.



First flight

A P-3K2 Orion is on a short response time to move. Anticipating that it will be used to gather initial imagery of the damage to the island, maintainers have been working through the night to ensure it is serviceable to fly and quickly get all the relevant imagery back to New Zealand.

The Joint Air Operations Centre directs all operational flying tasks and contacts No. 5 Squadron's Operational Flight Commander to let them know an aircraft will be needed.

While the pilots and air warfare officers draw up and submit the mission's flight plan, the squadron's maintainers get to work, completing final checks on the landing gear, hydraulics, propellers, engines, and oxygen levels and rectifying any faults they pick up.

"So when the aircraft is sitting there ready to go, we know that all those systems that are required for search and rescue or a HADR situation are available to them," avionics technician Sergeant Martin Howatson said.

Safety and surface technicians look after the safety equipment, including life vests, smoke masks and immersion suits. Heli-boxes containing radios and small relief supplies, which can be released via the main cabin door by the air ordnance specialist, are loaded onto the aircraft.

Flight engineers calculate how much fuel is needed for the flight and an aviation fuel specialist is called to re-fuel the aircraft. Concurrently, the flight facilitation cell is ensuring diplomatic clearance approvals are in place and a supplier from the logistics team ensures the spares pack-up for the plane is loaded.



Meanwhile, the team at the Air Operations Communications Centre (AOCC) will be starting pre-flight tests of all the communications systems they will use to contact the P-3K2.

"The call out team are on a quick notice to move, allowing them to respond to an emergency call by the base operations centre at any hour of the night or through the weekend. As soon as that message is received the team moves quickly to establish the required communications links," Flight Lieutenant Rochelle Rowe said.

Secure communication to the P-3K2 is enabled through the AOCC. They provide encrypting equipment allowing the aircrew to stay in touch during the entire mission.

All aircrew follow strict protocols to minimise the risk of spreading Covid-19 and are required to return a negative Covid test on a regular basis. Prior to the flight departing, all personnel on board need to have a temperature check and complete Covid health forms.

"I was working when a tropical cyclone hit Tonga a couple of years ago. It was in a bit of a rough state and took a pretty good battering. I was focussed on getting the job done and deliver a good product. Hopefully what you can provide can help them make a decision on where to put some aid on the ground."

– Sergeant Garrod Irvine

"You are a bit detached when you're doing these procedures that you've practiced, which I think is, to a certain extent a good thing because it means you're concentrating on doing your job in the most efficient way."

– Squadron Leader Stephen Graham

"You have to remain critical of the situation, but it doesn't mean losing your empathy. You're there to do a job and the better you do a job, the less affected you are, the better product is produced and the better aid will be received. It's then how you decompress afterwards. There's nothing you can do about what has happened, so we've just got to make sure that we go in there and make the situation better."

– Sergeant Richard Hooper



0900

Plan of action

Intense planning is underway throughout the Air Force. Teams throughout Joint Forces prepare for the Ministry of Foreign Affairs and Trade's request for a C-130 Hercules flight to deliver essential items.

The Joint Air Operations Centre contacts the C-130 Hercules Flight Commander to assess serviceability of the fleet and ability for the Air Force to support several flights into the Pacific.

No. 40 Squadron aircrews anticipate they will be needed to fly out as soon as possible and finalise the first crew to fly out.

One of the teams working out of HQ Joint Forces is the tri-service Deployable Joint Inter-agency Task Force (DJIATF or DJs). They can quickly deploy an initial assessment team, or a joint command and reconnaissance team (JCART), who are on a short response time to move, culminating in the Light Headquarters.

In most weather situations intelligence and cross-agency collaboration will signal when bad weather is turning into something potentially more devastating like a tropical cyclone.

Before the Covid pandemic, team members, or DJs, might travel to the island days before the tropical cyclone hits to ensure they can offer an immediate assessment in the aftermath. They act as the on-the-ground information conduit between the High Commission and HQ Joint Forces, as well as work with other agencies, to ensure the NZDF contribution to the national response is the best solution for the affected nation.

Travel restrictions make that impossible this year, so the team has to watch and wait to be deployed from here in the C-130 relief flight.



In the meantime, they begin internal tactical-level planning based on HQ Joint Forces contingency plans to contribute to the Joint Operational Planning.

Up for discussion are which force elements might be deployed, where they might be deployed to, how many locations NZDF personnel might be sent to, risk management and what shadow posts are included in the DJs team.

Shadow posts are filled by personnel with specialist skills, including health, legal and communications, who would be pulled into the team for the period of deployment.

“Preparing the deployment is always a pressure situation, because we’re reacting to an event that has already happened,” DJs Warrant Officer (W/O) Chris Mitchell said.

“We are always actively monitoring our environment in a manner that we can be as prepared as possible, should we be activated.”

Once deployed, the role of the JCART is to provide basic command and control over the forces deployed to the area and to continue assessments and on-the-ground planning expertise, and to continue acting as the conduit for information to/from New Zealand.

“We will bring with us enough equipment to set up a command post in an austere environment including airfields, paddocks, or within existing hardstanding areas if they are available,” W/O Mitchell said.

“On top of that, every country has their own Covid protocols that we need to adhere to if we are deploying there. So the Ministry of Foreign Affairs and Trade liaises with the affected country to determine what protocols NZDF must adhere to in the event of a response being requested.”

INSET
W/O Chris Mitchell

1000



Establishing the information hotline

Communications technicians from No. 230 Squadron and the Tactical Operations Centre hurry to ensure communications networks are set up and working to relay information to and from the P-3K2 aircrew. Their work is crucial to vital information getting to the right people at the right time.

Communicating with the P-3K2 while it is conducting its surveillance mission is critical and requires the use of military and commercial satellite bearers or high frequency radio networks, maintained by No. 230 Squadron communications and information flight personnel.

The squadron's Air Operations Communications Centre (AOCC) provides voice and data links to the aircraft and ground units, with the aircrew contacting them at pre-arranged reporting times with an update of their location and other relevant information.

Information from the aircraft is simultaneously received by the base's Tactical Operations Centre (TOC), which makes tactical-level decisions regarding the mission before distributing data to HQ Joint Forces and other agencies.

The TOC is the hub for images sent from the P-3K2 and are distributed to No. 230 Squadron's Intelligence unit. Any updates on the tasking or priorities would be fed back to the aircraft from the TOC.

"We relay information through HQ Joint Forces to the aircraft. They do the talking and the AOCC provides the link," Squadron Leader Andrew Fisher said.

When the aircraft has left the base, they will send through hourly situation reports to the TOC.

Lead mission coordinator Sergeant (SGT) Michael Mulderry said they would then pass that information to outside agencies to help with decisions around what type of immediate aid needs to be sent over.

Initial consideration occurs in Wellington on whether to send further aid, including NH90s on board HMNZS Canterbury. If that happens, a deployable communications team from Communications and Information Systems (CIS) will be tasked to deploy.

"From there we would usually be given a quick response time to move, our priority from this activation is to prepare and test our communications equipment and also our personal gear to move into the area of operations," Flight Lieutenant Jordan Clark said.

The team has a Pinzgauer vehicle with multiple satellite bearers, and radio network options configurable to the size and duration of the deployment. With that equipment, they can offer all their traditional support from any location. During tropical cyclone season, an MPI-cleaned pinzgauer with all of the equipment required to deploy, is sitting in a compound ready to deploy at short notice.

"Where we fit in during a HADR event is quite strategic, because our role is to enable communications to the relevant agencies and ensuring information is flowing in a timely manner, we enable the deployed commander to have direct communications with the strategic commanders at HQ Joint Forces and also provide the communication links to any aircraft working in the area of operations.

This scenario is what we train for and prepare for every year and it's what we join up to do. HADR is such a massive commitment by the NZDF. Every second year we go over to different locations around the Pacific islands and run exercises to prepare our personnel for this exact thing. We run commercial servers, which aren't supposed to be run outside of controlled server rooms, in the field and in tropical environments so that we are prepared for how the equipment reacts to moisture and also in the upper limits of heat.

A key part of these training exercises is how we interact with the locals, which makes it all the more real for our teams. Even in the training exercises we are still building that rapport, learning the local culture and operating in locations we could return to one day. You always hope you don't have to return to some of these small communities in a HADR capacity, but the reality is, there is a chance that will happen."

– Flight Lieutenant Jordan Clark



Images of destruction

The sight of the destruction is jarring for the P-3K2 crew flying above, capturing the worst of the damage to the island. Homes are flattened, roads are broken, water tanks are suffering catastrophic leaks and the hospital's roof has been ripped off. Locals are wandering through their decimated crops in a daze. At least the main runway is intact enough for a C-130 to land in the coming days, and the aircrew will be able to see they will be able to land with critical relief for the populace.

The flight arrives at the Pacific nation and aircrew take photos of key pieces of infrastructure, including air and sea ports, roads and power facilities to see if there is any damage.

The imagery is sent to intelligence specialists at No. 230 Squadron to process and pass to Government and outside agencies, who will decide on the amount and type of aid to send back to the island nation.

The silver lining around cyclone season is that the forecasts alert the team a few days in advance of approaching weather systems. This gives No. 5 Squadron a bit of time to prepare to leave.

"The way we plan it is to take off pretty early on the morning so we can make the best use of the available daylight. All of the detail around the mission will have already been finalised," air warfare officer Squadron Leader Stephen Graham said.

Intelligence officers have already provided coordinates for the flight plan, so the aircrew know exactly where to fly to get the imagery.

The aircraft is flying about 200 knots (360km/h), which makes taking sharp and clear photos challenging – which is where the early flight plan preparation pays off.

The electro-optics equipment attached to the underneath of the aircraft provides video imagery of the area, which helps in adding context that a still photo would struggle to show.

"You can locate people on the ground and determine whether they are in distress or not. Getting good imagery of key infrastructure is also important for building an intelligence picture of where aid is most needed," air ordnance specialist Sergeant Garrod Irvine said.

Once the aircraft returns to New Zealand, the maintainers kick into action again and ensure it is ready for its next flight.



14000

Damage assessment

Intelligence specialists are waiting at their monitors for the imagery to arrive. They understand the urgency of processing the photographs and will work as long as is needed to get the job done. The images arrive and the team gets to work.

The images have been sent from the P-3K2 team as they are still flying and arrive at No. 230 Squadron. Processing the photos is time critical because the sooner authorities know where the damage is and how bad it is, the faster appropriate help can be sent.

The team analyses imagery before the cyclone hit to compare with the latest photos to see where there is damage to key infrastructure, including runways, wharves and power and water stations. They see if a C-130 Hercules can land on the runway and a Royal New Zealand Navy ship can berth at the wharf.

They note the damage to the main water tanks and buildings, which provides cues to the Intelligence unit what level of support will need to be provided.

"If there is heavy flooding that might indicate where a pipeline is that has burst, which means there will be no fresh water," said an Intelligence officer.

"If a wharf is broken and we can't berth HMNZS Canterbury there, we can provide information about other areas where the ship might be able to berth. If a runway is damaged we can assess whether the C-130 can land on other areas of the island or provide landing zones for NH90s or Seasprites to deliver packages."

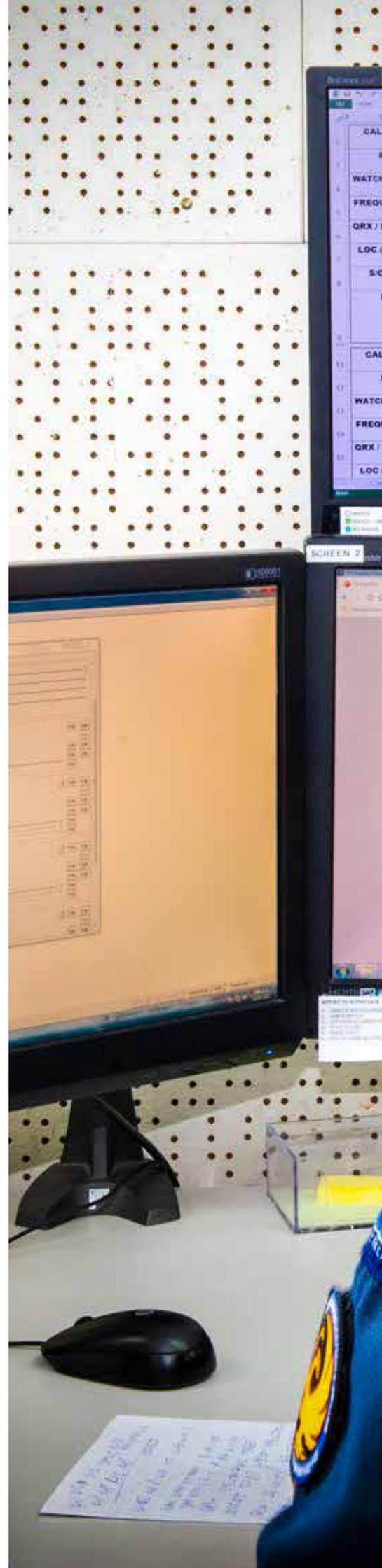
"I coordinate the imagery analysts and what order of information goes through them. After they analyse the images I'm the person who puts the product together and coordinates the requirements with HQ Joint Forces, No. 230 Squadron and the P-3K2 crew.

I'm pretty new to the role but based on everything I've seen so far I feel very privileged to be in that role and provide the support to the New Zealand Government and the New Zealand people.

It's what I signed up for. Helping during HADR situations is something I'm proud to do with New Zealand.

It's really rewarding. The job needs to be done and we know what we're contributing to. No. 5 Squadron reminds us every day, whether we're doing a search and rescue or a HADR, of the importance of what we're doing for the New Zealand Government and for the people here and in the Pacific."

- Intelligence officer



SCREEN 4

CALLSIGN: KIWI RESCUE 946	CALLSIGN:	CA
ROUTE: NZWP -> NFFN	ROUTE:	
WATCH TYPE: SAR	WATCH TYPE:	WATC
FREQUENCY: 8888	FREQUENCY:	FREQ
QRX / SKEDS: 0320 / 60	QRX / SKEDS:	QRX
LOC @ TIME: 20S 180E	LOC @ TIME:	LOC
S-C CODE: LMPE	S-C CODE:	S-C
EXTRA: 4 MISSING, WOODEN BOAT	EXTRA:	



RADIO LOG / SVR / E

CLASSROOM PRACTICE





Special delivery

Work starts to fill delivery trucks with much needed aid from separate storage facilities in South Auckland run by Ministry of Foreign Affairs and Trade and New Zealand Red Cross. The type of relief supplies loaded are based on the request made by the island's government and the local Red Cross. Truck drivers travel the hour journey towards Base Auckland at Whenuapai.

Each disaster relief package is unique depending on the needs of the specific situation, but in the case of a tropical cyclone, it contains items including shelter, tool kits, and tarpaulins.

The damage is so great MFAT and New Zealand Red Cross donate relief items in order to get as much over as possible.

Alongside the physical supplies MFAT is able to provide financial assistance to the impacted government, UN, New Zealand Red Cross and New Zealand based Non-Government Organisations with a presence in the affected country.

MAIN

New Zealand Red Cross general manager international (acting), Vivienne Euini



Pre-Covid, medical and disaster assistance and response teams would typically be deployed, however recent border settings have made this impractical.

Before the pandemic hit much of the world, MFAT would also offer to provide medical and urban search and rescue teams. However, with many Pacific islands remaining free of the virus, there is a limit to the number of people who can be sent.

The relief is tailored for the specific damage sustained by the island. This disaster warrants rebuilding supplies.

Last year when Tropical Cyclone Harold bore down on Vanuatu and Fiji, the Vanuatu government requested a private helicopter be sent to the country. The helicopter had been trapped in New Zealand, unable to return to Vanuatu due to Covid travel restrictions.

To meet this request, the civilian helicopter was trucked to Base Woodbourne, packed in a C-130 Hercules and flown out to the island.

The helicopter assisted in surveillance flights around Vanuatu as well as dropping loads of relief packages to outlying communities and evacuated residents from their destroyed homes.

The relief supplies for the recent disaster are received at Base Auckland's Air Movement's team. They begin the process of documenting each item, weighing and spraying them with anti-viral spray in preparation of them being loaded onto the aircraft.

Send in the specialists



A team of medics make sure their kits are full and everything they need to cover immediate medical concerns are packed. They know they will be facing severe problems from badly injured locals who may need to be aero-evacuated back to New Zealand as well as keeping themselves safe from water diseases or viruses spread by insects.

A medical officer, nurse and two medics are on the first flight out to help with any immediate medical needs; and a public health team will assess how safe the country's water, food and shelter are.

The public health specialists report back to New Zealand and give the Government advice on essential infrastructure that can be brought over.

Meanwhile, a second medical team are preparing to leave with an NH90 from Base Ohakea, in case they are needed to travel over by ship.

"We have a lot of technical aspects to cover while we are over there. We need to look after our military people who are providing support, assist the local government and work with aid agencies," Warrant Officer (W/O) Steve Hunn said.

"Depending on who we are working for, whether it's DJs, the High Commission or with force elements directly, it shapes how we move around the disaster."

The complicating factor looming over the entire operation is working out how to do the job while avoiding exporting Covid to the already broken nation.

The first personnel putting boots on the ground will operate under the Government health rules and wearing Personal Protective Equipment (PPE).

This would happen regardless of the pandemic because there is always a danger of being exposed to the health hazards of a similar or greater nature – whether that be biological, chemical or radiological.

A lot of Pacific nations have had no cases of Covid and the last thing the NZDF wants is to export it anywhere. Cargo is disinfected before it goes over and sometimes it will sit at the airport for a few days before it is touched by anyone on the island.

"The items that would be disinfected are materials that could have been exposed to the virus. We have supplied aid into medical centres that are dealing with the injured and sick, so that equipment is a risk. Air Movements know to shrink wrap and disinfect that type of cargo," W/O Hunn said.

As well as wearing appropriate PPE, all personnel are screened before getting on the plane as an extra risk minimisation for spreading the virus.



Business as usual for busy base

Keeping a weather eye on the developing situation is the Base Commander, Group Captain Andy Scott. He's relaxed. His team has done this numerous times and has the process pretty much perfected. This is what they train for and what motivated many of them to join the Air Force in the first place.

"This type of work is business as usual for the base, which is why it's really quite cool being here. It is an operational base and these events are what we train for," Group Captain, (GPCAPT) Andy Scott said.

"We maintain people and equipment on standby for a variety of contingency operations 24 hours a day, 365 days of the year. So everything you are reading here about how the base kicks into gear is no different to what we are normally geared to do – it's just that this time we are delivering aid instead of another type of air operation.

"Our people are always busy in their different roles on the base, but when a disaster hits, that work becomes the highest priority.

"All the Force Elements on Base Auckland have HADR standby requirements so an event like this truly brings the whole base into focus," he said.

"There are so many moving parts required to get the aircraft ready and loaded, the aircrew prepared for the mission (and fed!), the information from the mission processed to inform the next flight and then everything to be turned around immediately to do it all again.

"This takes people across multiple commands and really does show that we are one team on Base Auckland. A team that are here to deliver Military Air Operations for New Zealand when people need it most," GPCAPT Scott said..



The sum of all parts

Cyclone season brings a heightened focus for the base and a number of units work hard to ensure the C-130 flight takes off smoothly. The work is no different to any other flight leaving the base, but the team ensures the relief flights are a top priority.

THE CONTROL TOWER

Airways New Zealand provides all the air traffic services for New Zealand. One of the team on lookout is Mike Turner.

He keeps the automated weather broadcast up-to-date on changes with the wind, temperature, barometric readings and any other information relevant to the aircrew.

The aircrew files a flight plan that then sits within Airways' flight data system, and will appear on the air traffic control radar screens once the aircraft is airborne.

"When an aircraft takes off, it broadcasts its position using a transponder on board. The pilots set a discreet 'squawk' code that we give them, and once our radar systems detect this code, it attaches information on that aircraft to the radar target," Mr Turner said.

"We then have access to information that tells us things such as what the aircraft is, its call sign and the route it's travelling. Our tower, radar and oceanic controllers use that information to make sure that the flight gets safely and efficiently from Whenuapai to where it needs to go."

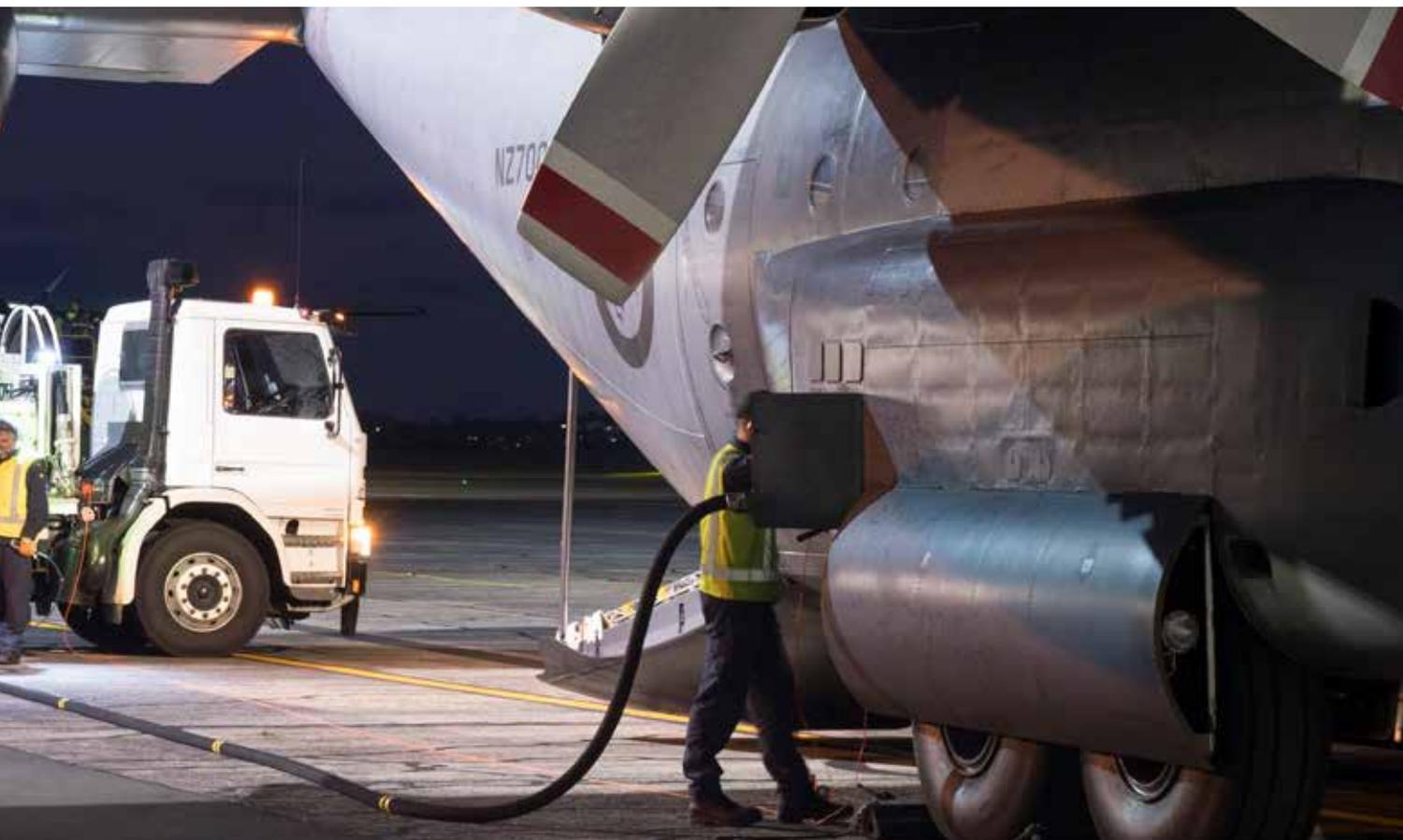
SECURITY FORCES

A 10-person team is on stand-by during the cyclone season who are ready to respond.

"They take leave over the holiday period, but they are aware that they could get called in if needed. We need to be ready to go in a short time frame – but it depends on the timeline when the event has hit," Flight Sergeant Danny Farrell said.

The team provides ground security for any assets that deploy. Primarily they are involved with the rotary wing, so if it is decided that HMNZS Canterbury should be deployed with NH90s embarked on her, Security Forces will join them. They also have people on standby ready to fly out with the first C-130 flight, if needed.

"Our team is told to be aware over that time frame to keep up to date with the news and what's going on. Once we get there, we work in with the host nation – either their security forces or police."



BASE REFUELLER

The refuelling unit is on call 24-hours a day, with someone always available within half an hour from the base during the evening.

At the start of the HADR operation, a text arrives for the P-3K2 to be fuelled and the team gives them as much gas as they need, within two hours of the aircraft taking off.

“Then we’ll get a call from No. 40 Squadron after they have worked out weights and distances and how much fuel they need,” Sergeant Matt Wilson said.

BASE AIRFIELD MANAGER

Meanwhile, before any flights are cleared to take off, it’s Kalama Cotter’s job to ensure the “serviceable infrastructure” of the airfield.

His staff include an airfield safety officer and environmental officer who will go out and do a runway sweep for birds and debris.

DEFENCE SHARED SERVICES GROUP AND ESS

It’s the little things that make a big difference and this is where the Defence Shared Services Group (DSSG) and ESS excel.

DSSG ensures there is always local and foreign currency available for crews to take with them to cover any contingency. Before heading away on the HADR flight, the aircrew can grab bundles of Australian, New Zealand or United States cash to take with them.

And crews are kept fed by ESS, which provides food through the inflight kitchen. There is always food stocked and ready to be packed on board.

NO. 40 SQUADRON OPERATIONS OFFICER

For every No. 40 Squadron flight that leaves the base, Warrant Officer Rick Sinclair makes sure all the boxes are ticked.

“After the mission is tasked by HQ Joint Forces, my role would then be to add the crews to the task and update any timings if necessary. I would then raise a Flight Authorisation Report and ensure that it contains correct crew and timing information. It’s a matter of collating all the little bits of information and making sure it gets to where it needs to be.”



0300

Call to action

The C-130 aircraft is rolled out onto the apron. The maintainers work hard to ensure it is ready to fly at first light. Logistics teams make sure they have all the equipment they need.

The duty team of maintainers is on hand to ensure the plane is ready to fly regardless of the time of the day or night. The aging aircraft fleet means maintaining their unique configurations is increasingly more time consuming, so the team has spent time ensuring all the parts they need are already on hand.

“The C-130 Flight Commander will contact the duty engineer to say there is a HADR task. They will let us know the timing it needs to be away, where it is going and the duration it will be away for. From there we will be able to determine what will go with that aircraft to support it,” Warrant Officer Darryn Wells said.

Two or three maintainers will be added to the flight’s manifest, along with spare aircraft parts in case there are any mechanical problems when the aircraft reaches its destination.

The duty team arrives about three hours before take-off. In this case the flight is using as many daylight hours as it can get, so will leave at dawn.

“The duty crew will just start at whatever time of the night they are required. It’s just part of the job – it’s just what we do.”

The maintainers’ first job is to ensure the P-3K2 and, later, the C-130 is configured for the task ahead.

Due to the New Zealand environment and aircraft age, an increasing problem the maintenance team is finding is corrosion on the aircraft. If this is discovered, an engineer will decide if it can be fixed, or if a new aircraft needs to be prepared.

One of the final jobs is to top the aircraft up with as much fuel as possible to reach the plane’s maximum weight after all the cargo is loaded.

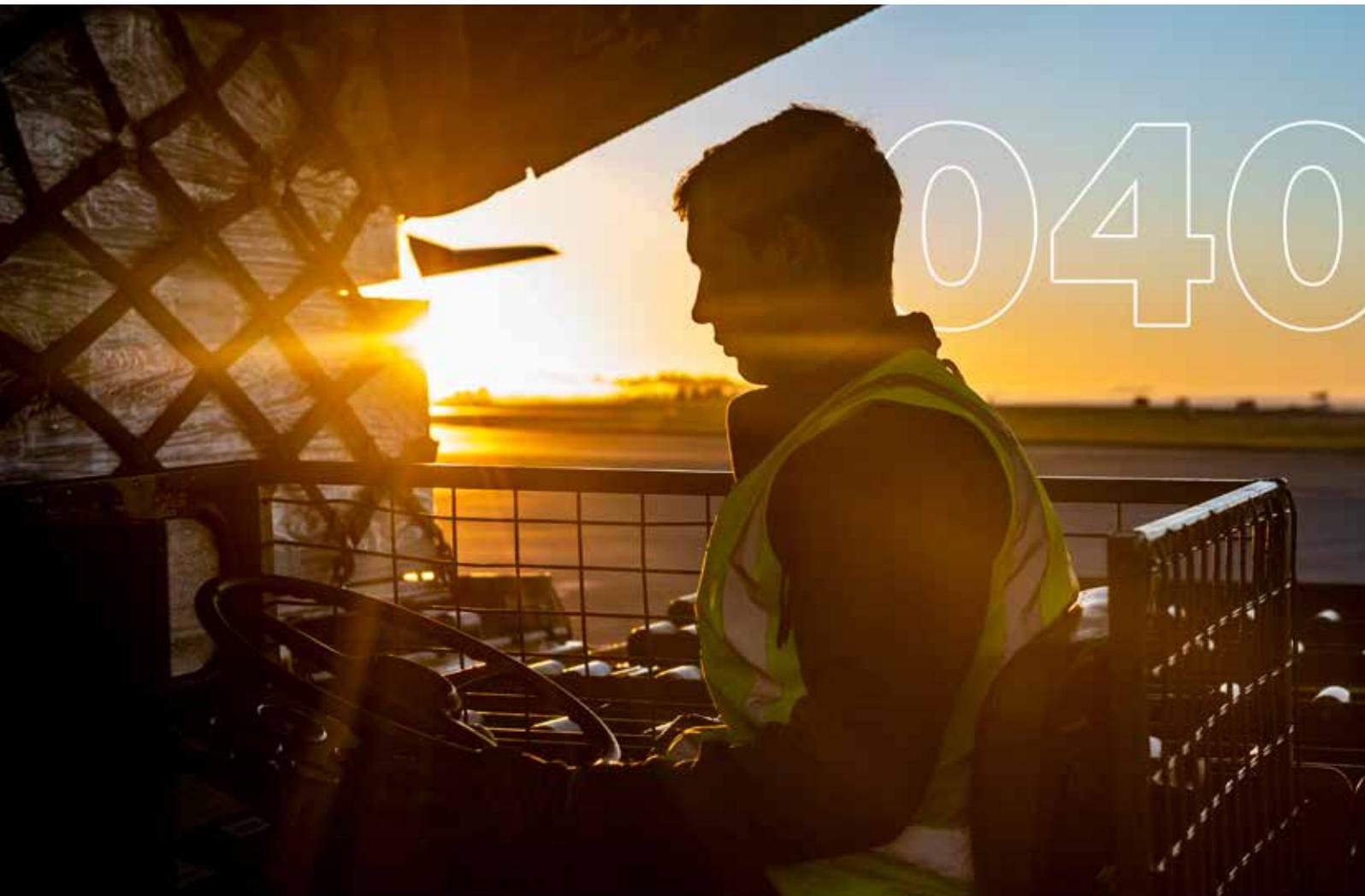
“The maintenance team does such a great job all the time. There are more weekends than not where I’ll get a text saying ‘Right, the aircraft’s now completed its check flight’.

The team is working all the time to get these aircraft out and people are willingly coming in, in order to get these aircraft serviceable.

Because of other commitments, what we’re increasingly doing is work that would have traditionally been within the flying squadron’s maintenance flight. But because we’re now one aircraft maintenance organisation under the DARs construct, we’re able to shift the work resource in order to meet the demand.

It’s not just the maintainers who are responding to that no-notice, it’s also the forward support sections, in order to provide the parts to the maintainers, and enable them to repair the aircraft.”

*– Logistics Commander (Air)
Group Captain Colin Marshall*



Loading Up

Air Movements staff move quickly to pack the relief supplies into the C-130. They determine whether there are any dangerous goods within the consignment and ensure they are documented and packed appropriately to mitigate any risk to the crew and aircraft.

Air Movements staff have worked overnight alongside the Joint Movements Control Office to take delivery of the disaster relief stores from MFAT and the New Zealand Red Cross and prepare and document the stores for air transport and export.

To maintain the island's Covid-free status relief stores are disinfected prior to being loaded onto the aircraft.

"Once the freight arrives we loosely spread it out so we can get an even application of the disinfectant around the equipment and then let it sit for 10 minutes, which is all that is needed to kill anything.

It's strong stuff – the individual spraying it is required to wear PPE," said Flight Sergeant (F/S) Alcide Gosselin, a logistics specialist from the Air Movements terminal at Base Auckland.

"Once that's done we get into building the pallets. The packages are then shrink-wrapped before positioning the restraint netting onto it."

The pallets are built up, weighed and restrained. The staff at the Air Movements terminal work with MFAT and the Joint Movements staff at HQ Joint Forces New Zealand to determine the priority of the stores and the trade-offs between the weight and volume of the stores that need to be moved.



In order to move as much of the relief stores as possible, the maximum use is made of the available space and payload weight.

The more stores that can be moved, the more help can be provided to people impacted by the disaster.

“We pass on the weights to our air loadmaster and they tell us which order things need to be loaded onto the aircraft, which ensures the load is evenly spread across the aircraft. Then we arrange to load it in that order using forklifts or our aircraft cargo loaders,” F/S Gosselin said.

The team discusses a plan to load the equipment and any passengers and baggage that may be travelling. Once completed, the paperwork is finalised and handed to the air loadmaster who checks it and briefs the pilot.

Three Air Movement qualified personnel will join the flight to help unload at the destination and to help load anything or anyone that is approved to return to New Zealand. A lot of island nations do not have the equipment to unload the pallets from the aircraft, so it’s all hands on deck to manually unload them.

“We will only have a short time on the ground, so everybody gets involved.”

Meanwhile, already on board the C-130 are PPE packs that travel on all aircraft.

The packs include masks, gloves, coveralls, hand sanitiser, equipment to isolate any passenger who becomes sick, cleaning equipment to spray down the aircraft and a contactless thermometer, all of which are replenished after every flight.

“When I go on these deployments, there are always proud moments. I’m there to offer assistance and offer to help in any way. I feel privileged to be amongst the team delivering the aid and seeing how appreciative the locals are to have us there.”

“It’s that really, just seeing their reaction and seeing how our nation is able to help another that is in need makes me proud in what we do.”

– Flight Sergeant Alcide Gosselin



The world roadmap

Meanwhile No. 40 Squadron aircrew are preparing the flight ahead. They study maps loaded on their iPads and work out the flight plan. The flight manifest has been finalised and all documentation has been forwarded to the correct authorities here and in the Pacific.

The C-130 crew are rushing to get ready to leave the base to deliver the crucial aid to the devastated island.

Up until a couple of years ago the crew would go to the Tactical Operations Centre to do airways and flight planning where they would use paper maps for navigation. The centre had a map table that showed the entire Pacific. Now, the team has upgraded in technology and use iPads.

The iPad has got a “roadmap of the world” loaded onto it, C-130 pilot Flight Lieutenant Tim Leslie said.

“It’s just like using Google maps. We don’t just fly between two points, we follow the highways of the sky effectively – they’re called airways routes. We look how we are going to get to our destination as well as all the airspace and who controls it.”

Just like land borders on a map, the iPad app shows the aircrew the air borders of where they swap from being controlled by Auckland, to Australia, to then being controlled by a Pacific island.

“It also shows us when we’re lower down around the islands, who we need to be talking with and where other aircraft are.”

The aircrew study the maps then lodge a flight plan that is loaded online and goes to all the relevant different controllers around the Pacific who the crew will talk with.

Meanwhile the manifest with the C-130’s passengers is being finalised by the Joint Air Operations Centre planner. Aircrew can travel on a general declaration but any non-Air Force personnel on the flight need to travel on an Advanced Passenger Information declaration – for instance MFAT employees.



Telling the story

As the C-130 is being prepared for the flight the Defence Force's Public Affairs team start work to publicise the NZDF's part in the mission in support of the island's Government and MFAT. One of the team's photographers will arrive as the pallets are being loaded to photograph the cargo being flown across the Pacific. The social media team will post the information, along with photos, to social media channels. A press release detailing the type of aid that is being delivered, as well as photos of the relief supplies, will be sent to the media.

Defence Public Affairs is responsible for telling the story of the Defence Force's involvement in these types of operations. A photographer will arrive early in the morning at the flight line to capture images of the Air Movements team loading relief supplies on to the aircraft and of the aircrew getting ready for the flight.

"I will get a press release signed off and sent out. All details about the assistance being provided and what supplies are being flown over are included in the release," communications advisor Sue Eden said.

She also liaises with counterparts in MFAT about the ministry's involvement in leading the New Zealand response and providing the relief supplies.

To alert the public to the upcoming mission, the social media team will post the photos and information about the supply flight to NZDF's social media channels, including Facebook and Twitter, which has an immediate reach to an audience of thousands.

Because of the magnitude of the disaster, media outlets have been contacting the team's media line to find out more information about the assistance NZDF is providing. The team liaises with media outlets and assists with responding to requests for interviews.



0600

Final checks

Aircrew arrive at the hangar and final checks are being completed. Air Movements staff load the plane and passengers are arriving to check in for the flight. Personnel work quickly and efficiently, knowing time is of the essence to transport the vital supplies to the population of the damaged island.

Work for the No. 40 Squadron aircrew has started a few days earlier when the trajectory of the tropical cyclone was known. They run potential schedules and plans for their best guess of what the storm's impact will be.

They study different landing zones for the C-130 Hercules and how much aid they will be able to take over if they are unable to land and refuel.

"If we can't refuel at the island because it's been destroyed by the cyclone then obviously we need fuel to get home, which means loading fewer items on board," C-130 pilot Flight Lieutenant (FLTLT) Timothy Leslie said.

Air loadmaster Flight Sergeant (F/S) Nathan Hodges said they will work out how long the trip could take and make sure they are packed for all contingencies.

"We'll work out whether we will need to stay overnight. We'll assume there's no accommodation there so we'll pack sleeping bags and supplies in case we need to sleep in the C-130 or a hangar – so stretchers and ration packs will be packed."

A few hours before the flight is due to leave the base the aircrew arrive and calculate their final maximum payload that can be loaded onto the aircraft.

FLTLT Leslie said they "try to squeeze every last pound out of it".

"Then we give that figure to the Air Movements team and they will build it the closest to that amount that they can."

They check the weather at the destination and find out if the airfields on the island are still operational.

"We talk with the airfield operators if we can or use the imagery that No. 5 Squadron have got to show if the airfields are clear. We make sure we've been given clearance to go to the country and we launch."

If the aircraft is able to land the crew will help to unload the pallets by hand.

"As soon as we've landed, make sure our checks are all done then head down the back and it'll be the whole crew sweating away unloading," FLTLT Leslie said.

Because of Covid considerations, as well as their uniform, the team also wears PPE – gloves and mask at a minimum and sleeves rolled down.

"The locals can't help us – they want to but have to stand back. We load the aid onto trolleys to be rolled away where they will be sprayed with anti-viral spray."

"These jobs are really rewarding. It's nice to see that the hard work you put in during training, when put into practice, it helps people's lives. When we get up there we see people's homes and livelihoods are destroyed, so if we can even help them a little bit, it's really rewarding."

"Some of the jobs we do we can't see the benefit, but with these jobs, we literally see the 20,000 to 30,000 pounds of relief that we drop being driven away to the people who need it."

"Then later we see photos of rebuilding. Knowing that we dropped relief supplies over there, like the chainsaws or equipment to clear roads it's a good feeling understanding that's happened because of the job we have done."

– Flight Lieutenant Timothy Leslie



0700

Help on the way

The C-130 is packed full of emergency aid. Everyone is on board. Pilots and aircrew have finished their checks and the aircraft is on its way to deliver lifesaving equipment. It's a trip made so many times over the years and it won't be the last. Helping our Pacific neighbours during these times of crisis is why many of our people sign up to the Air Force and each and every one of them can be proud of their work.





The next step...

Decisions are still being made at a Government level whether to send HMNZS Canterbury loaded with further aid as well as two NH90 helicopters and an SH-2G(I) Seasprite helicopter to the island. Regardless, the crews are now preparing in case they need to be deployed.



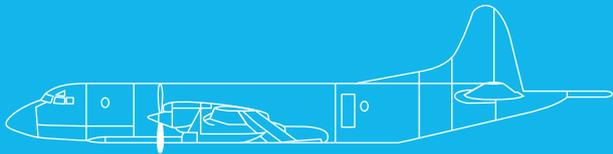


Last April the New Zealand Defence Force responded to a Category 5 tropical cyclone that slammed into Fiji, Tonga and Vanuatu, causing significant damage across the islands.

Here is how we helped

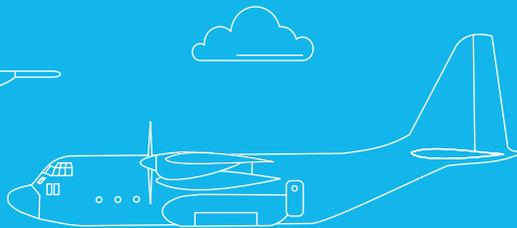
4

P-3K2 Orion surveillance flights



6

flights to deliver aid to Fiji and Vanuatu



We delivered

15,325 

of aid delivered to Port Vila in Vanuatu

100 

kits for mothers and babies

840 

tarpaulins

13,082 

of aid was taken to Fiji

300 

tool kits

1 

commercial helicopter

500 

family hygiene kits

300 (approx) 

10-litre collapsible water containers

5 

petrol generators

5 

diesel generators