

MAGISTRATES COURT OF THE AUSTRALIAN CAPITAL TERRITORY

Case Title: May v Commonwealth of Australia and Helicopter Resources Pty Ltd (No 2)

Citation: [2019] ACTMC 31

Hearing Dates: 17 June – 16 July 2019 and 3 October 2019

Decision Date: 6 December 2019

Before: Acting Chief Magistrate Theakston

Decision: See [167] – [168].

Catchwords: **CRIMINAL LAW – Industrial criminal charges** – failure to comply with duty to ensure the health and safety of workers, where the failure exposed workers to the risk of death or serious injury – did activity amount to a business or undertaking by the Commonwealth – does the *Work Health and Safety Act 2011* (Cth) impose duties on persons other than the Commonwealth.

Legislation Cited: *Civil Aviation Order (Cth) order 29.6*
Civil Aviation Regulations 1988 (Cth) regs 5, 303
Civil Aviation Safety Regulations 1998 (Cth) reg 11.160
Work Health and Safety Act 2011 (Cth) ss 7, 8, 12, 12F, 18, 19, 30, 32

Cases Cited: *Baiada Poultry Pty Ltd v The Queen* [2012] HCA 14; 246 CLR 92
Kirk Group v Industrial Relations Commission of NSW [2010] HCA 1; 239 CLR 531
May v Commonwealth of Australia and Helicopter Resources Pty Ltd (No 1) [2019] ACTMC 20
Morrison v Powercoal Pty Ltd & Anor [2004] NSWIRComm 297; 137 IR 253
R v Associated Octel Co Limited [1996] 1 WLR 1543 at 1548E
Varity v Wyong Shire Council [2005] HCA 62; 223 CLR 422

Texts Cited: Explanatory Memorandum, *Work Health and Safety Bill 2011* (Cth)
Commonwealth, *Parliamentary Debates*, House of Representatives, 6 July 2011, Second Reading Speech (The Hon. Simon Crean)

Parties: Christopher May (Informant)
Commonwealth of Australia (First Defendant)
Helicopter Resources Pty Ltd (Second Defendant)

Representation:**Counsel**

Mr P Neil SC (Informant)

Mr C Jacobi (Informant)

Mr B Narula (Informant)

Mr D Hallowes SC (First Defendant)

Ms C Currie (First Defendant)

Mr G O'Mahoney (Second Defendant)

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File Numbers:

CC 44149 – 44151 of 2017; 44152 – 44154 of 2017

ACTING CHIEF MAGISTRATE THEAKSTON:**Introduction**

1. The Commonwealth of Australia and Helicopter Resources Pty Ltd have been each charged with three counts of failing to comply with their duties to ensure the health and safety of workers, where the failure exposed workers to the risk of death or serious injury. Both defendants pleaded not guilty to each charge and a hearing was conducted. Ultimately, I have found the Commonwealth guilty of the first and third charges and the defendants not guilty of the balance of the charges. These are my reasons.
2. The charges against each defendant arise out of three helicopter flights on 8 and 28 December 2015, and 11 January 2016. They occurred in Antarctica and were performed by Helicopter Resources at the request of a Commonwealth agency known as the Australian Antarctic Division (AAD). The purpose of the flights was to transport drums of aviation fuel to remote and unprepared sites on the West Ice Shelf for future use. The pilots flew without passengers and with the drums slung on long lines below their helicopters. On the first date, there was just one helicopter. On the subsequent dates, there were two. On each occasion the helicopters landed, and the pilots walked on the surface at the sites, in order to retrieve the lines and hooks used to carry the drums. On the third occasion one of the pilots, Mr David Wood, unfortunately stepped onto a snow bridge, which was located immediately adjacent to his helicopter. He fell into a crevasse and remained trapped there for some hours. Tragically, Mr Wood later died from hypothermia.

The proceedings

3. On the first day of the hearing, the prosecution sought leave to amend the charges. That application was refused, in the main, for the reasons I have provided in *May v Commonwealth of Australia and Helicopter Resources Pty Ltd (No 1)* [2019] ACTMC

20. The prosecution also made elections in relation to five of the six charges in order to avoid those charges being duplicitous. The texts of the charges are lengthy and are therefore reproduced in the annexure to this judgment. The allegations abandoned as a consequence of the elections have been crossed through.

4. Neither defendant presented evidence after the close of the prosecution case.
5. An important feature of this case is that it is not an administrative commission of inquiry, inquisitorial in nature, to review the safety arrangements of the defendants. An administrative inquiry may investigate what measures could or should have been put in place in order to have avoided the death of Mr Wood. It would have flexibility to direct its own lines of inquiry for that purpose. It would make findings about facts and could consider a range of preventative measures, discuss their relative value and make recommendations about which one would be best suited to mitigate against the identified hazards.
6. In contrast, this is a criminal prosecution, which is adversarial in nature. The prosecution puts its case for the purpose of establishing the offences. The offences are described at the outset and in enough detail to allow the defendants to know precisely what case they need to respond to. There is not meant to be any uncertainty about the prosecution position. In the instant case, the prosecution would have made various forensic decisions about what case to put, including how they pleaded the precise acts or omissions they say constituted the offences charged. Those acts of omissions are described in the authorities as the 'specified measures'. It was then for the defendants to respond to that case. The Court is to then decide whether each of the offences, as charged and with the specified measures pleaded, has been established to the requisite standard of proof. It is not for the Court to substitute the prosecution's charges or specified measures with variations that may have better prospects of success or fit better with the way the evidence fell during the hearing.
7. This requirement was described in part in *Kirk Group v Industrial Relations Commission of NSW* [2010] HCA 1; 239 CLR 531 in the majority judgment at [14], [19] and [30]:

14. A statement of an offence must identify the act or omission said to constitute a contravention of s 15 or s 16. ... But it is the measures which assume importance to any charges brought. Sections 15 and 16 are contravened where there has been a failure, on the part of the employer, to take particular measures to prevent an identifiable risk eventuating. That is the relevant act or omission which gives rise to the offence.

...

19. What was necessary to be done in connection with the health, safety and welfare of employees and others at the workplace depended upon the presence of identifiable risks and measures which could be taken to address them. The question which may follow, as to what was or was not reasonably practicable for the employer to have undertaken, is directed to the measures so alleged. It is the employer's act or omission with respect to those measures which had to be identified in the statement of any offence charged under ss 15 and 16.

...

30. Without that particularisation, the Industrial Court would be placed in the position to which Evatt J referred in *Johnson v Miller* [[1937] HCA 77; (1937) 59 CLR 467 at 495] where it would act as "an administrative commission of inquiry" rather than undertake a judicial function.

The issues

8. I will commence these reasons by describing the key features of the charges and then acknowledge the fundamental principles I need to apply. I will also make findings in relation to the unchallenged evidence.
9. Helicopter Resources took issue in its final submission about whether the Commonwealth had the legislative power to impose a work health and safety duty on a private person. That argument was subsequently abandoned. However, Helicopter Resources did maintain two other threshold arguments.
10. Following the findings about unchallenged evidence, I will address the following issues:
 - (a) Did the establishment of fuel cache sites amount to a business or undertaking by the Commonwealth?
 - (b) Does the Commonwealth Act impose a duty on Helicopter Resources?
 - (c) What was the probability of crevasses at the incident site?
 - (d) Was a reconnaissance conducted immediately prior to landing on 11 January 2016?
 - (e) Did the Civil Aviation Safety Authority's rules prevent the carrying of Field Training Officers when carrying fuel externally by sling?
 - (f) Did any failure to comply with a duty expose an individual to a risk of death or serious injury?
 - (g) Did the Commonwealth fail to comply with a health and safety duty?
 - (h) Did Helicopter Resources fail to comply with a health and safety duty?

The charges

11. The text of the charges is substantial. There is also substantial commonality between the charges. Accordingly, I will describe several key features of the charges, including the features in common and those that diverge.
12. For each defendant, the first charge relates to 8 December 2015, the second charge relates to 28 December 2015, and the third charge relates to 11 January 2016.
13. All the charges involve the allegation of failing to comply with the duty to ensure the health and safety of workers, where the failures exposed workers to the risk of death or serious injury, contrary to s 32 of the *Work Health and Safety Act 2001* (Cth) ('the Commonwealth Act'). That provision provides:

32 Failure to comply with health and safety duty – Category 2

A person commits a Category 2 offence if:

 - (a) the person has a health and safety duty; and
 - (b) the person fails to comply with that duty; and
 - (c) the failure exposes an individual to a risk of death or serious injury or illness. ...
14. Section 30 of the Commonwealth Act defines the expression 'health and safety duty' as including a duty under s 19 of the Act. Subsection 19(1) provides:

19 Primary duty of care

(1) A person conducting a business or undertaking must ensure, so far as is reasonably practicable, the health and safety of:

- (a) workers engaged, or caused to be engaged by the person, and
- (b) workers whose activities in carrying out work are influenced or directed by the person;

While the workers are at work in the business or undertaking.

15. Subsection 19(3) amplifies that primary duty of care, and relevantly provides:

(3) Without limiting subsections (1) ... a person conducting a business or undertaking must ensure, so far as is reasonably practicable:

- (a) the provision and maintenance of a work environment without risks to health and safety, and
- ...
- (c) the provision and maintenance of safe systems of work

16. In relation to the Commonwealth, the first and third charges were particularised to involve a breach of the duty to ensure safe systems of work. The second charge is not particularised in that way; however, the prosecution case was consistent with a breach of the same duty to ensure safe systems of work. In relation to Helicopter Resources, the charges were particularised to involve a breach of the duty to ensure a work environment without risks to health and safety.

17. As alluded to above, the prosecution was required to identify the specific measures they say were not done, being the acts or omissions that amounted to a breach of the duty and caused the relevant risk. In relation to the second charge for the Commonwealth, the measure was described as:

failed to require helicopter pilots to wear Personal Protective Equipment (PPE) in the form of appropriate waterproof and appropriate thermally insulated clothing at all times when they were outside the helicopter whilst at a deep field fuel cache which was reasonably practicable.

18. In relation to the balance of the charges the specified measures involved a prohibition on landing or walking at a remote site unless a recent multistep site assessment process had been completed. It was described as:

it failed to ensure that before workers were permitted [or required] to land a helicopter and walk on the ice surface ... the site had been subject to the following testing and assessment ... to confirm that ... there were no crevasses at each site:

[1] obtaining and analysing publicly available satellite imagery of the site to determine if there was evidence of crevassing and the location of the grounding line (where crevassing is likely to be more prevalent) and, if such analysis indicated that there was likely to be minimal crevassing at that site, proceed to the next step of:

[2] engaging in an air task risk assessment process in respect of the site for the purposes of identifying risks of crevasses; and thereafter:

[3] undertaking low-light helicopter reconnaissance by someone suitably trained to do so, such as a Field Training Officer (FTOs), to inspect the site and determine if there was evidence of crevasses, including crevasses hidden by snow bridges; and, if such analysis indicated that there was likely to be minimal crevassing at that site, proceeding to the next step of:

[4] undertaking helicopter-crevasse probing of the site by someone suitably trained to do so, such as FTOs; and

[5] marking out boundaries of the area in which it was deemed safe to land and walk and beyond which would be an exclusion zone; and

[6] re-doing the steps [above] if more than two weeks had expired or if there had been a significant weather event since the last assessment.

19. The offence is an offence of strict liability: s 12F(2). Therefore, there are no default fault elements that apply. For the prosecution to establish an offence it would need to prove the following physical elements:

- (a) The defendant was conducting a business or undertaking;
- (b) The defendant owed a health and safety duty to ensure, so far as was reasonably practicable, the health and safety of:
 - (i) workers engaged by it;
 - (ii) while the workers were at work in the business or undertaking;
- (c) The defendant failed to comply with its health and safety duty; and
- (d) The failure exposed an individual to a risk of death or serious injury.

20. The expression 'reasonably practicable' is defined at s 18 of the Commonwealth Act, which provides:

18 What is *reasonably practicable* in ensuring health and safety

In this Act, reasonably practicable, in relation to a duty to ensure health and safety, means that which is, or was at a particular time, reasonably able to be done in relation to ensuring health and safety, taking into account and weighing up all relevant matters including:

- (a) the likelihood of the hazard or the risk concerned occurring; and
- (b) the degree of harm that might result from the hazard or the risk; and
- (c) what the person concerned knows, or ought reasonably to know, about:
 - (i) the hazard or the risk; and
 - (ii) ways of eliminating or minimising the risk; and
- (d) the availability and suitability of ways to eliminate or minimise the risk; and
- (e) after assessing the extent of the risk and the available ways of eliminating or minimising the risk, the cost associated with available ways of eliminating or minimising the risk, including whether the cost is grossly disproportionate to the risk.

21. I note the authorities have focused on the risk management nature of the duties associated with these offences. For example, in *Baiada Poultry Pty Ltd v The Queen* [2012] HCA 14; 246 CLR 92 at [15] the majority decision stated:

All elements of the statutory description of the duty were important. The words "so far as is reasonably practicable" direct attention to the extent of the duty. The words "reasonably practicable" indicate that the duty does not require an employer to take every possible step that could be taken. The steps that are to be taken in performance of the duty are those that are reasonably practicable for the employer to take to achieve the identified end of providing and maintaining a safe working environment. Bare demonstration that a step could have been taken and that, if taken, it might have had some effect on the safety of a working environment does not, without more, demonstrate that an employer has broken the duty imposed by s 21(1). The question remains whether the employer has so far as is reasonably practicable provided and maintained a safe working environment.

22. It is clear from s 18 of the Commonwealth Act that the question about whether something was reasonably practicable in relation to a duty, must be answered as at the time of the alleged offence based upon what was known or ought reasonably to have been known. Accordingly, hindsight reasoning is impermissible. In *Varity v Wyong Shire Council* [2005] HCA 62; 223 CLR 422 at [126] – [129] Hayne J described why a similar approach should be applied in relation to the tort of negligence when he observed:

126. When a plaintiff sues for damages alleging personal injury has been caused by the defendant's negligence, the inquiry about breach of duty must attempt to identify the reasonable person's response to foresight of the risk of occurrence of the injury which the plaintiff suffered. That inquiry must attempt, after the event, to judge what the reasonable person would have done to avoid what is now known to have occurred. Although that judgment must be made after the event it must seek to identify what the response would have been by a person looking forward at the prospect of the risk of injury.

127. ... it is only by looking forward from a time before the accident that due weight can be given to what Mason J referred to in *Shirt* as "consideration of the magnitude of the risk and the degree of the probability of its occurrence". It is only by looking forward that due account can be taken of "the expense, difficulty and inconvenience of taking alleviating action and any other conflicting responsibilities which the defendant may have".

128. If, instead of looking forward, the so-called *Shirt* calculus is undertaken looking back on what is known to have happened, the tort of negligence becomes separated from standards of reasonableness. It becomes separated because, in every case where the cost of taking alleviating action at the particular place where the plaintiff was injured is markedly less than the consequences of a risk coming to pass, it is well nigh inevitable that the defendant would be found to have acted without reasonable care if alleviating action was not taken. And this would be so no matter how diffuse the risk was - diffuse in the sense that its occurrence was improbable or, as in *Romeo*, diffuse in the sense that the place or places where it may come to pass could not be confined within reasonable bounds.

129. To approach the inquiry about breach in this prospective way is to apply long-established principle. (Footnotes omitted)

General principles

23. For the purpose of these proceedings I note the following principles that I must apply. I must find facts, draw inferences from them, and apply the law to the facts that I find. I must bring an open and unbiased mind to the evidence and view it clinically and dispassionately and not let emotion enter into the decision-making process. Both the prosecution and defendants are entitled to my verdict free of partiality, prejudice, favour or ill-will. I must deliver my decision according to the evidence.
24. The prosecution bears the onus of proving the guilt of the defendants. The defendants do not have to prove that they did not commit the offences charged.
25. The standard of proof for the prosecution is proof beyond reasonable doubt and the defendants cannot be found guilty of an offence unless the evidence satisfies me beyond reasonable doubt of their guilt for each element of the offence.
26. If the evidence, which I accept, fails to satisfy me beyond reasonable doubt of any or all of the elements of an offence, then I must dismiss that charge.
27. If I am satisfied that there may be an explanation consistent with the innocence of a defendant, or I am unsure of where the truth lies, then I must find the relevant charge has not been proven to the requisite standard.

28. I need to consider the reliability of each witness' evidence. I can accept all, part or none of a witness' evidence.
29. The defendants did not call evidence during the hearing, and they were not required to do so. No adverse inference against them can be drawn from their decisions not to call evidence. Nor can the absence of evidence from a defendant be used to fill in any gaps or used as a makeweight for any deficiency in the prosecution case.

The unchallenged facts

30. A large part of the evidence was not challenged and remained consistent across various witnesses and exhibits. I accept that evidence and make the following findings.

The arrangement

31. The Commonwealth of Australia conducted, through the Australian Antarctic Division (AAD), activities in the Australian Antarctic Territory (AAT), including at Davis Station and its surrounds. The activities included, amongst other things, the facilitation of scientific research in the AAT.
32. Helicopter Resources Pty Ltd is an Australian company that provides helicopter services.
33. In 2012, Helicopter Resources entered into a contract with the Commonwealth to provide the AAD with helicopter services in the AAT. Those services involved the transport of personnel and cargo, and other support to AAD facilitated science projects.

The geography and ice

34. Davis Station is one of the stations operated by the AAD and is located on an island just off the coast in the AAT. East of Davis Station is the West Ice Shelf (WIS). This is a very large area of ice floating on the sea adjacent to the very large ice sheet sitting on the Antarctic continent. The ice shelf is fed from that ice sheet. The ice sheet forms on the continent and flows down the land and towards the sea. The ice sheet and shelf are very thick.
35. The ice sheet is prone to cracking when exposed to tensile or shear stresses. Those forces may arise due to parts of the ice moving at different speeds, either along or across the direction of flow, and where the ice hinges along the coast due to tidal fluctuations. Those cracks lead to crevasses. Crevasses can be large enough for a person to fall in and deep enough to prevent a person climbing out. They can also be covered by snow, which may form snow bridges across the surface, and which may hide the existence of the crevasse. Snow bridges may be too thin to support the weight of a person.

The people

36. During the 2015/16 summer season, Helicopter Resources provided four pilots across two rotations. The first rotation comprised of Bryan Patterson and Haydon Anderson, and the second rotation comprised of Paul Sutton and David Wood, with the former pilots in each rotation designated the Senior Pilot. The Chief Pilot for Helicopter Resources was Lee Hornsby until August 2015, and then it was David Lomas. The Chief Pilot had several statutory responsibilities, including ensuring appropriate pilot training and regulatory compliance. Each pilot had significant general aviation

experience, and experience flying in Antarctica. Following the death of Mr Wood, Mr Lomas travelled to Davis Station and assisted with the retrieval of the helicopter flown by Mr Wood and left on the WIS following the incident of 11 January 2016.

37. During the 2015/16 summer season, the Station Leader of Davis Station was William De Bruyn and the Operations Coordinator was Sharon Labudda. Both had significant experience in Antarctica. The Station Leader was responsible for the safety and wellbeing of the station community and management of all programs and expedition personnel. The Operations Coordinator reported to the Station Leader and was responsible for day to day resource allocation, operational planning and the implementation of all off station operations. That included tasking pilots and others.
38. Field Training Officers (FTO) were also located at Davis Station. During the 2015/16 summer season, they were Martin Benavente and James Hamilton. A third FTO, Anthea Fisher, was attached to Project King and worked out of either Casey or Davis station. FTOs are responsible for the planning and delivery of field training to personnel in the AAT, as well as providing support to scientific groups in the field and when necessary conducting search and rescue.
39. Other AAD staff were located in the AAD's Hobart office, including Don Hudspeth, the AAD Planning Manager.

A project

40. The AAD agreed to support a scientific project designated Project King. It was a multi-season project that included the 2015/16 summer season. Among other things, that project involved the collection of rocks and the installation of equipment at sites further east of the WIS, known as Nunatak 1, Nunatak 2 and Gaussberg. (A nunatak is an isolated projection of rock through the ice sheet.) Arrangements for the project were contained within a service level agreement. The AAD intended that helicopters would transport people and equipment to those sites. The distances between Davis Station and those sites were such that the helicopters would need to refuel more than once each way. It was planned that refuelling was to be arranged by flying fuel into remote and unprepared sites, where the fuel would be cached by leaving the drums strapped together and sitting on the ice surface. Those cache sites ultimately included one on the WIS at the incident site and another at Nunatak 1. The fuel was to be transported in large drums suspended by a long line and drum hooks from an external sling point on the helicopters.
41. Mr Hudspeth, of the AAD Hobart office, provided Ms Labudda with coordinates for suggested locations in relation to the project, including a fuel cache site on the WIS. Ms Labudda discussed those locations with Mr Patterson and a decision was made by Ms Labudda, possibly with the knowledge of Mr De Bruyn, about using the pre-existing fuel cache site on the WIS.

Pilot training

42. Each of the pilots had undergone extensive flying training and had extensive post-qualification experience. Mr Patterson had been qualified to fly helicopters since 1991 and had a range of helicopter associated endorsements. At the relevant time he had approximately 9,500 flying hours. Mr Sutton had been a helicopter pilot for 20 years and had several helicopter endorsements. At the time of the incident, he had logged approximately 4,000 flying hours. Mr Wood had been flying helicopters since 1980,

again had several related endorsements and at the time of his death had logged in excess of 16,000 flying hours.

43. For the 2015/16 summer season, Mr Lomas provided Messrs Patterson, Sutton and Wood with re-currency pilot training. That occurred shortly prior to their departure to Antarctica and in the vicinity of Cambridge Aerodrome Hobart. The previous year, the previous chief pilot had provided similar training to the same pilots. The training was specifically designed for work in Antarctica. It involved both classroom and flight training. It included the testing of landing site selection and landing sequences, with an emphasis on conducting a thorough reconnaissance of a landing site before landing. The pilots were also informed about the dangers of landing on snow, and the benefit of landing on ice not covered with snow.
44. Upon arrival at Davis Station, each pilot received an orientation flight, where they flew a helicopter around the station and to the edge of the nearby Sorsdal Glacier, while an FTO provided information about the local environment. The FTOs also provided training to the pilots about how to use the survival equipment carried on the helicopters. That equipment included tents, survival bags and cookers. The pilots were also briefed about the operation of the station and their individual roles and responsibilities when at the station.
45. Additionally, the pilots flew many times with the FTOs in Antarctica and regularly discussed the terrain below. Those discussions included assessing possible landing sites, the risks of crevasses and irregular surfaces being hidden below snow and how to use different sun angles and orientations to detect crevasses. The FTOs also advised the pilots to land on bare blue ice surfaces, rather than on snow.

Publications

46. The AAD had a comprehensive series of publications that addressed issues of safety. One manual, *Volume 5 – Aviation Standard Operating Procedures*, provided the following in relation to rotary wing activities:
 10. Prior to landing on glaciated surfaces the following will apply:
 - i. Proper planning and briefings on the site and mission must be conducted in consultation with the pilot and FTOs
 - ii. FTOs must be familiar with helicopter anchor points, and have practiced the heli crevasse probing technique and emergency procedures and
 - iii. A low light aerial recon (sic) should be undertaken to assist in identifying crevassed terrain.
47. That manual did not define the expression 'glaciated surfaces'.
48. Another manual, *Volume 1: Station & Field*, provided a comprehensive description of hazards, and methods to minimise the manifestation of risks associated with those hazards. For example, it addressed field training, field leadership, sea ice travel, heli crevasse probing, Haggglunds crevasse probing, small vehicle roped glacier travel, field equipment and clothing, field food and rations, field huts, caches and depots, and deep field trips. In relation to heli crevasse probing it provided:

4.6 Heli Crevasse Probing

Helicopters may be used to insert parties into the field on glaciated terrain. There is potential for the following to occur while conducting this type of operation:

- Accidental rotor strike while using a probe under the helicopter; and
- Personnel falling into a crevasse while probing, with excess rope out, still attached to the helicopter and being unable to self rescue.

Prior to conducting heli crevasse operations:

- Proper planning and briefings on the site and mission must be conducted in consultation with the pilot and FTOs;
- FTOs must be familiar with helicopter anchor points, and have practiced the heli crevasse probing technique and emergency procedures; and
- A low sun angle aerial recon (sic) in light conditions providing high ground definition should be undertaken to assist in identifying crevassed terrain.

During heli crevasse operations:

- Two FTOs must be used to conduct heli crevasse probing;
- No probing is to occur inside the rotor disc area; and
- FTOs must have some form of protection at all times, hence the first FTO should move clear of the rotor blade area whilst protected by the aircraft, probe that area for safety and have the second FTO join them. The aircraft can then retire to a safe area and await a clearance to come back to the tested area.

There are significant complications and variations in conditions that affect the construction of suitable anchors that will fully protect personnel on the ground. A two FTO operation is the only way to avoid personnel being attached to the helicopter at all times.

49. That same manual imposed limitations when operating on glaciated terrain. Relevantly it provided at 4.3.8:

Expeditioners crossing or working in glaciated terrain will be accompanied by an FTO unless an exemption has been approved by the [Operations Manager].

50. Again, that manual did not define the term 'glaciated terrain'. Under the headings, *4.13.9 Vehicles and plant* and *Operating vehicles in areas of known crevassing*, the manual provided:

Some deep field winter travel routes cross areas of crevassing (e.g. the Sorsdal Glacier). The Trip Leader and Station Leader must consult with the [Operations Manager] if any winter field trip involves crossing *or working in crevassed areas*. ... The hazards associated with travelling in crevassed terrain should be discussed prior to leaving station and procedures put in place to mitigate the risks involved.
(emphasis added)

51. The *2015 Field Manual* provided a detailed and comprehensible description of the hazards and mechanics associated with crevasses. Additionally, it contains the following advice under the heading, *10 – Snow and ice*:

Avoid crevassed zones if possible, even if it entails a considerable number of detours. Consult maps and field notes from previous journeys. Because an area has been crossed without incident, do not assume that it is crevasse-free. The previous parties may have been lucky. Do not even assume that regularly used routes are crevasse-free. Stick to approved travel routes when traveling off station, there have been a number of serious crevasse incidents where people have been exploring in apparently safe areas.

52. Under that same heading the manual also provided a diagram depicting several features of crevasses, including the tendency of crevasses to be located at the 'hinge zone' where an ice sheet transitions into an ice shelf. That boundary is also known as the 'grounding line'.

53. Helicopter Resources also had publications, including comprehensive manuals. The *Pilots Operations Safety Manual Volume 2: Aircraft operations (helicopters only)*, contained a syllabus for training in relation to Antarctic and sub-Antarctic operations. Under the heading, *Special Hazard Focus*, it contained the following:

3. CREVASSING

The Amery ice shelf is a large area 80 nautical miles south west of Davis where extensive scientific activity has taken place for many years. This predominately featureless area covers 40,000 square kilometres of floating ice shelf. It is also an example of an area that is heavily crevassed. It is possible to work in between crevasses provided they are identified by a thorough reconnaissance. Crevasses are more easily identified during late afternoon and evening hours with low sun angles.

- (i) Crew must be thoroughly briefed as to the dangers of working in a crevassed area and it is preferable to carry an FTO (field training officer).
- (ii) After identifying a safe [landing zone] land and remain light on skids.
- (iii) The FTO will deploy outside the aircraft probing alongside the aircraft skids plus a safe area adjacent to the helicopter, checking for a stable [landing zone] prior to shut down. Wait for 'thumbs up' signal prior to shut down.
- (iv) Plan to depart the area when an emergency landing would still be possible.

The incident site

54. The incident site was located approximately 90 nautical miles east of Davis Station, which equated to approximately one-hour flight time in the helicopters used during the season. The terrain was flat and relatively featureless, and involved an ice sheet or shelf surface, with parts covered in snow.
55. Significantly, the site was located proximate (within 2.5 km) to the grounding line where crevasses were likely to form due to tidal fluctuations and the transition of the relatively slow ice sheet flow to the relatively fast ice shelf flow. It was also located at a place where there was a very high gradient (rate of change) in the ice velocity, transverse to the flow of ice. That also increased the likelihood of crevassing. Accordingly, the ice at the location was likely to experience the following stressors that cause crevasses to form:
- (a) hinge stresses due to ice on the ocean pivoting relative to the ice on the land;
 - (b) tension stresses, due to the ice on the ocean travelling away faster than the ice approaching along the land; and
 - (c) shear stresses, due to the ice at one point of the flow travelling downstream at a different speed to ice at a nearby lateral point.

Monitoring and supervision

56. The pilots' flights were deliberately tasked by either the Station Leader or the Operations Coordinator. During the flights, the pilots remained in contact with, and reported their locations to, the Davis Station duty radio operator. While there may have been discussions from time to time between the pilots and staff at Davis Station following flying tasks, there was no structured or documented de-briefing process.
57. The Davis Station radio operator and Helicopter Resources were able to remotely monitor the movement of the helicopters. Helicopter Resources periodically received copies of paperwork about the taskings and use of the helicopters. Additionally, there

were regular telephone conferences between the pilots in Antarctica and the Chief Pilot in Hobart. Further, the pilots were encouraged to telephone the staff at Helicopter Resources in Hobart, when necessary, and that could be done at any time.

Risk assessments

58. After the Station Leader or Operations Coordinator allocated the pilots a flying task, a risk assessment was conducted.
59. The first step was a meteorological briefing. Thereafter, the Operations Coordinator and Senior Pilot, and possibly others, conducted an Air Task Risk Assessment (ATRA). That assessment involved a discussion using a form and associated list of considerations. The form and list were used to guide and document the discussion. The list included, amongst other things, the following considerations:

- Performance limitations
- Procedural limitations
- Current and forecast weather
- Lighting / sun angle / visibility
- Comfort level / circadian rhythm
- Obstacles / crevasses / snow

and provided a range of possible controls, including:

- Reject the task
- Adjust ... the time of tasks to achieve ... lighting
- Avoid last minute changes to task
- Make plans for possible contingencies
- Gather information to minimise uncertainties
- Conduct a reconnaissance

60. All involved in the tasking and flying of the helicopters were aware that the pilots had the option to refuse to undertake or continue with a task, and that included landing at a particular site.
61. The pilots would also complete their own Helicopter Resources' *Daily flight log and air task – Risk assessment*. This formed part of the paperwork associated with individual aircraft.

The flight of 8 December 2015

62. On 8 December 2015 Mr Patterson was tasked to fly four drums of aviation fuel to a location on the WIS in support of Project King, and then return to Davis Station.
63. That location was recorded as already being a fuel cache site, with the last visit being in 2012. The distance to that site was on the edge of the one-hour flying limit imposed for search and rescue reasons. It was possible for the helicopter to fly to the site with the drums, and then return to Davis Station. However, the range of the helicopter was such that it could not carry the drums the entire way back to the station.
64. The ATRA recorded the following assessment:

Identified hazards / risk	Mitigators implemented / in place
Over ice / snow flight	Good weather forecast for sling loading – good surface and horizon definition Known fuel depot site
Sling load	Within [search and rescue] range

65. Ms Labudda was of the understanding that the site had been last visited in 2012 but did not know what, if any, assessment of the site had been conducted. She was of the understanding that Mr Patterson could fly to the site and, if he was not comfortable landing, return to the station without landing at the site.
66. Mr Patterson recorded in the aircraft *Daily flight log and air task – Risk assessment*, the following entry:

Additional identifiable hazards	Risk control measures
Snow landings	Good day for surface definition

67. The flight log records that Mr Patterson departed Davis Station at 1420 hours, travelled to the WIS and returned at 1702 hours. (It also recorded numerous subsequent flights to and from the fixed wing landing strip located near Davis Station, with the last flight ending at 2236 hours.)
68. When Mr Patterson arrived at the planned location, he was not able to locate the existing fuel drums and did not like the look of the surface for landing. He decided to carry on further to locate a better site to land the fuel drums that he was carrying. He noticed the ice was progressively less crevassed further away from the coast. He located a site of blue ice and circled the site a couple of times. He then landed the drums, then the helicopter, disconnected the drums and retrieved the long line and drum hooks. During this process he walked on the ice which he observed to be very solid and like concrete. He also took photographs.
69. At some point before landing, Mr Patterson communicated his intentions to the duty radio operator at Davis Station and was not told to do anything different. The radio log records several communications including the following prior to Mr Patterson landing:
- By [satellite phone] 1st [way point] too many crevasses – moving to second [way point] 10 nm away in search of fuel drums will call again by [satellite phone] on the ground
70. Mr Patterson then returned to Davis Station without incident. He later spoke separately with Mr Benavente, Ms Labudda and Mr Du Bruyn and explained what had occurred. He also provided Mr Benavente with the coordinates and a photograph of the landing site. That same day, Mr Benavente emailed those coordinates and photograph to Ms Labudda. During a subsequent rotation hand over take over, Mr Patterson described the site to Messrs Sutton and Wood.
71. There was no evidence that anyone considered that the original site may have moved with the flow of ice over the intervening three years.

The flight of 28 December 2015

72. On 28 December 2015, Messrs Sutton and Wood were tasked with transporting eight drums of fuel to Nunatak 1. The distance to Nunatak 1 from Davis Station required a refuelling stop at the incident site. It also required the use of two helicopters, which were described as providing mutual search and rescue capability.
73. The ATRA noted 'Stopping at fuel cache on Western Ice Shelf to refuel', and recorded the following assessment:

Identified hazards / risk	Mitigators implemented / in place
Snow landing	Good weather conditions
Sling loading	Good weather conditions

74. Mr Sutton made no entry under 'additional identifiable hazards' or 'Risk control measures' in the aircraft *Daily flight log and air task – Risk assessment*. The flight log records he left Davis Station at 0911 hours and returned at 1409 hours.
75. Mr Wood recorded similar flight times, and the following entry in the aircraft *Daily flight log and air task – Risk assessment*:

Additional identifiable hazards	Risk control measures
Unknown landing site	Recon

76. Messrs Sutton and Wood flew in separate helicopters to the incident site, each carrying four drums of fuel on a long line. Both helicopters landed at the incident site. The site still had a surface of exposed blue ice. The helicopters were refuelled using the drums already at the site. A drum was caught briefly in the top of a narrow crevasse while being rolled to Mr Wood's helicopter by both pilots. There were also other cracks and crevasses in the ice visible within metres behind the helicopters. Mr Sutton expressed reservations about the presence of the crevasses, and Mr Wood responded by saying words to the effect, 'Better the devil you know than the one you don't'.
77. Both helicopters were then flown to Nunatak 1. While it was originally planned to land on the nunatak outcrop, it was assessed as too small, and the eight drums of fuel were ultimately cached on a nearby area of blue ice.
78. Mr Sutton later informed Ms Labudda about 'cracks' in the blue ice at the incident site and about Mr Wood's comment 'Better the devil you know'.

The flight of 11 January 2016

79. On 11 January 2016, Ms Labudda requested Mr Sutton transport four drums of fuel to the incident site on the WIS. Mr Sutton expressed reservations about flying that distance without the support of a second helicopter. Ultimately, Messrs Sutton and Wood were tasked by Ms Labudda to transport eight drums of fuel to the incident site using two helicopters.
80. The ATRA recorded the assessment:

Identified hazards / risk	Mitigators implemented / in place
Snow landing	Good weather conditions Been at this location previously this year
Sling loading	Suitable conditions

81. During the ATRA process, both Mr Sutton and Mr Wood were present and neither raised any concerns with Ms Labudda about their earlier observations of the incident site.
82. In the aircraft *Daily flight log and air task – Risk assessment*, Mr Sutton recorded departing Davis Station at 1424 hours and arriving at 1553 hours. He also made the following entry:

Additional identifiable hazards	Risk control measures
Stress & fatigue	Team work (sic) and good coms

It is unclear whether these last entries were made before or after the incident involving Mr Wood. (The entries may relate to the response to the incident, which included Mr Sutton flying his helicopter between Davis Station and the WIS a further five times that day.)

83. Mr Wood made no entry under 'Additional identifiable hazards' or 'Risk control measures' in the aircraft *Daily flight log and air task – Risk assessment*. He recorded flight times similar to those recorded by Mr Sutton.
84. Messrs Sutton and Wood flew to the incident site. Both expected the site to be blue ice. However, no blue ice was visible. Instead the site was completely white with two drums protruding from a shallow layer of snow.
85. Mr Wood was ahead of Mr Sutton, flew directly into the site, and lowered the fuel drums under his helicopter to the snow. He continued to descend. Mr Sutton requested by radio that Mr Wood drop his long line and allow Mr Sutton to place his drums beside the others. Mr Wood dropped his long line and disappeared from Mr Sutton's sight. Mr Sutton placed his drums next to the others and dropped his long line. The cracks and crevasses were not visible through the snow and there were no further communications before both helicopters landed in locations similar to where they had landed previously. However, both helicopters were located further away from the fuel drums than they had been on the previous visit. Mr Sutton shut his helicopter down. Mr Wood left his helicopter running.
86. Both pilots stepped out of their helicopters and walked to the drums. On the way, Mr Sutton stepped into a crevasse up to about his knee. He mentioned that event to Mr Wood when they were side by side at the drums disconnecting their long lines. Both walked back to their helicopters to stow their long lines. Mr Sutton last saw Mr Wood just in front of the latter's helicopter. Mr Sutton stowed his long line and then noticed he could no longer see Mr Wood. Upon further investigation Mr Sutton observed a hole in the snow immediately adjacent to the left skid of Mr Wood's helicopter. That

hole exposed a crevasse that ran transversely under both skids. Mr Wood's footsteps led to the hole, and Mr Wood's long line protruded from the hole.

87. Mr Sutton shut down Mr Wood's helicopter and managed to speak briefly to Mr Wood who could be heard to respond from, but not seen in, the crevasse. Mr Sutton notified the duty radio operator at Davis Station and hastily flew back to Davis Station in his helicopter to collect a crevasse rescue team.
88. The rescue team of three and Mr Sutton travelled back to the incident site in Mr Sutton's helicopter. The team conducted heli crevasse probing before the helicopter finally landed and shut down at 1855 hours.
89. Mr Wood was retrieved from the crevasse and transported directly to Davis Station. That trip took place between 2000 and 2045 hours. Tragically, Mr Wood died from hypothermia, which was caused by the time he spent trapped in the crevasse.
90. Mr Sutton returned to the site to collect the two remaining FTOs and to tie down Mr Wood's helicopter, before returning to Davis Station at 0036 hours. When leaving the site for the final time, the crevasse was clearly visible from the airborne helicopter due to the low angle of the sun.

Clothing and flying

91. The AAD issued pilots with transport survival gear. That kit included three layers of clothing, as well as related items such as goggles, a balaclava, boots and boot chains. The AAD required the entire kit to accompany pilots in their helicopters, so that it was available at any time the helicopter was in the field. There were no requirements for pilots to wear particular clothing when flying, or when outside their helicopters at remote field locations.
92. The clothing involved the following layers for both top and bottom:
 - (a) thermal under layer;
 - (b) polar fleece mid layer; and
 - (c) outer layer.
93. There were difficulties with the pilots wearing all the issued clothing when flying. It could be very hot inside the aircraft. Consequently, it would not be comfortable for the pilots to wear all three layers of clothing. Additionally, the pilots monitored any sling load below their helicopter through a small window in the floor. That view was obscured when pilots wore bulky clothing. Further, the wearing of some items interfered with the pilots' use of the aircraft controls.
94. On 28 December 2015 Mr Sutton wore a thermal layer, a polar fleece top, padded trousers and a cotton vest. When he exited the helicopter at the two fuel cache sites, he did not don any additional clothing, for example the outer layer issued as part of the transport survival gear.
95. There was no evidence as to what Mr Wood was wearing on 28 December 2015. However, the clothing he was wearing at the time of the incident on 11 January 2016 was photographed. Those photos depicted socks, boots, briefs, padded trousers, a T shirt, a long sleeve fleece top, fingerless gloves and a pilot's helmet. A set of thermals,

fleece pants, fleece top and outer layer pants and top were in his transport survival gear bag. The thermal and outer layer tops still had their brand tags attached.

96. Notwithstanding there being photographs of the outer layer issued to Mr Wood, there was no evidence about precisely what the outer layer of clothing involved. For example, was it anything more than a breathable waterproof layer, or did it have some thermal insulation properties as well? Additionally, I note the agreed facts described below indicate that, had Mr Wood been wearing the personal protective equipment (PPE) issued to him, the onset of severe hypothermia would have taken eight to 12 hours, rather than the three to four hours he experienced.

Hypothermia

97. The following additional facts were agreed by the parties:

- (a) The risks to health and safety that a person faces in a cold environment are cold stress, accidental hypothermia, exhaustion and death.
- (b) The body loses heat to the environment by way of convection, conduction, evaporation, radiation and respiration.
- (c) Hypothermia is divided into three major categories: mild, moderate and severe. In each, core body temperature is linked to known physiological responses in the body to minimise heat loss.
- (d) All physiological systems are altered as hypothermia continues since the low temperatures will affect all chemical reactions that will decrease functioning of cells, organs and overall systems.
- (e) Hypothermia causes death by eventually causing the heart to beat irregularly, so that no blood will be sent to the rest of the body. This forms the major challenge for successful resuscitation.
- (f) Based on Mr Wood having a temperature recorded at 24 degrees centigrade, he suffered from severe hypothermia and died as a result.
- (g) Mr Wood was not wearing any effective PPE.
- (h) With no effective insulation a person in the circumstances of Mr Wood would become hypothermic very quickly and, based on the model, become so within three to four hours.
- (i) Clothing and protective gear is the most effective way of minimising heat loss in a constant cold environment.
- (j) The PPE that Mr Wood and other pilots were issued would have been sufficient to delay the onset of severe hypothermia.
- (k) Wearing the PPE he was issued would have increased Mr Wood's prospects of survival when he fell in the crevasse by substantially increasing the time before the onset of severe hypothermia.
- (l) Having a layered system would have allowed the heat generated by his body metabolism to be enclosed around his body.
- (m) Had he been wearing the PPE, he would not have experienced severe hypothermia conservatively in eight to 12 hours.

Did the establishment of fuel cache sites amount to a business or undertaking by the Commonwealth?

98. The Commonwealth took no issue with it having conducted a relevant business or undertaking. However, Helicopter Resources submitted that the prosecution had failed to establish that the pilots were carrying on work as part of the conduct of a business or undertaking of the Commonwealth, when operating at the fuel cache sites.
99. I accept Helicopter Resources' submission that whether the pilots were operating within the course of the Commonwealth's business or undertaking is a question of fact. However, I do not accept that activities conducted by the Commonwealth, attributable to a statutory duty or function or to an international obligation, cannot fall within the expression of 'business or undertaking'.
100. I note the observations made by Lord Hoffman in *R v Associated Octel Co Limited* [1996] 1 WLR 1543 at 1548E, that activities carried on by another person entirely separate from the employer would not be the conduct of the employer. In that case examples were listed that involved another person performing services for the employer off site and in the other person's own commercial premises, presumably under the exclusive control and direction of the other person. The instant case is different. While the pilots travelled to the incident site without other Commonwealth staff, they did so at the request of the Commonwealth's Operations Coordinator. The site was remote, unprepared and could not be characterised as under the effective control of the pilots or Helicopter Resources. Additionally, the relationship between the defendants was such that, while Helicopter Resources clearly provided specialist services to the Commonwealth, it did so within the harsh Antarctic environment while being supported and hosted by the Commonwealth. The Commonwealth provided training, accommodation, equipment, personnel and advice necessary for operations within Antarctica, including flying operations. The pilots, and through them Helicopter Resources, were clearly best placed to control aircraft inflight operations, and manage the hazards associated with flying. However, the Commonwealth was best placed to be informed about relevant environmental factors and to control the movement and placement of personnel on the ground. That was the case even at remote fuel cache sites.
101. Further, I do not accept the submission that because the pilots were engaged in a business or undertaking for Helicopter Resources necessarily meant that such activities were entirely separate from the business or undertaking of the Commonwealth.
102. Accordingly, I find that the Commonwealth's business or undertaking included the activities of the pilots at, or when approaching, the incident site.
103. Out of completeness, I formally find that Helicopter Resources' business or undertaking included the activities of the pilots.

Does the Commonwealth Act impose a duty on Helicopter Resources?

104. The Commonwealth took no issue with owing a work health and safety duty to the pilots and I find accordingly. However, Helicopter Resources submitted that s 12 of the Commonwealth Act should be read as limiting the application of that duty, so that it did not apply to them. That section relevantly provides:

12 Scope

- (1) This Act applies in relation to each of the following:
 - (a) if the Commonwealth is conducting a business or undertaking:
 - (i) the Commonwealth; and
 - (ii) an officer of the Commonwealth;
 - (b) if a public authority is conducting a business or undertaking:
 - (i) the public authority; and
 - (ii) an officer of the public authority;
 - (c) to the extent that a person is a worker and carries out work in any capacity for a business or undertaking conducted by the Commonwealth or a public authority—that person;
 - (d) to the extent that a person is a worker and is taken to carry out work for a business or undertaking conducted by the Commonwealth or a public authority because of section 7—that person;
 - (e) if work is carried out by a worker at a place (as defined for the purposes of section 8) for a business or undertaking conducted by the Commonwealth or a public authority—that place;
 - (f) if work is taken to be carried out by a worker at a place (as defined for the purposes of section 8) for a business or undertaking conducted by the Commonwealth or a public authority because of section 7—that place; and
 - (e) if work is carried out by a worker at a place (as defined for the purposes of section 8) for a business or undertaking.

105. A national framework for work health and safety law commenced in 2012 by the enactment of uniform work health and safety legislation for the Commonwealth, New South Wales, Queensland, South Australia, Tasmania, the Australian Capital Territory and the Northern Territory. The charges in this matter are under the Commonwealth Act. The Commonwealth Act contains the above unique variation of s 12. That provision indicates that the Commonwealth Act applies in a number of discrete circumstances, and I accept that the Commonwealth Act does not otherwise apply. Each circumstance has a nexus to the Commonwealth or a Commonwealth public authority. The nexus relates generally to:

- (a) any business or undertaking conducted by the Commonwealth;
- (b) any worker carrying out work in any capacity for a business or undertaking conducted by the Commonwealth; or
- (c) any place where a worker carries out work for a business or undertaking conducted by the Commonwealth.

106. Helicopter Resources submitted that the net effect of s 12 was that the Commonwealth Act only applies duties upon the Commonwealth. In support of that argument it noted:

- (a) The Commonwealth is subject only to the Commonwealth Act, and the Commonwealth Act and a corresponding Act may operate concurrently.
- (b) The Explanatory Memorandum to the Work Health and Safety Bill 2011 (Cth) includes the following statement:

Clause 12 sets out the scope of the Bill. The Bill will apply to businesses and undertakings of the Commonwealth, public authorities

- (c) The Second Reading Speech of the Work Health and Safety Bill 2011 (Cth) includes the following statement:

The Work Health and Safety Bill that I am introducing today will apply to businesses and undertakings conducted by the Commonwealth, public authorities ... The bill will apply to businesses or undertakings conducted by the Commonwealth, a public authority

107. This extrinsic material is not comprehensive or exclusive in nature and is therefore of little assistance. I was not referred to any authority on this issue.
108. A plain reading of s 12 suggests the Commonwealth Act applies to 'the Commonwealth' or 'a place', in certain defined circumstances. It does not address what duties would then apply, rather it only addresses whether the Commonwealth Act would apply. Once the Commonwealth Act applies, it applies in full. The test is binary in nature.
109. The same cannot be said in relation where the Commonwealth Act applies by reference to 'a worker'. Those parts of s 12 commence with the words 'to the extent that', rather than the word 'if'. That language imports a qualification to the test, such that it is no longer binary. Put another way, even if the answer is in the affirmative, that distinction in language must mean the operation of the Commonwealth Act would be limited only 'to the extent' that a person is a worker and either carrying out or is taken to be carrying out work in any capacity for a business or undertaking conducted by the Commonwealth. That qualification must then extend to the duties imposed and consequently restrict such duties.
110. The above construction may appear curious. It effectively limits the duties imposed under the Commonwealth Act to the Commonwealth, public authorities and associated officers and workers, save in relation to places where work is carried out by a worker for a business or undertaking conducted by the Commonwealth or public authority. That exception fits neatly with the Commonwealth Act applying to the external territories and extra-territorially, where a corresponding State or Territory Act may not apply.
111. In the present case the Commonwealth was conducting a business or undertaking in Antarctica at various sites, including at the incident site. This is because the site was used to store the Commonwealth's fuel for the Commonwealth's purposes, notwithstanding that the helicopters were being operated by another entity. The Commonwealth tasked the helicopters to transport a particular amount of the Commonwealth's fuel to a particular place in anticipation of the next step in a particular Commonwealth project. It was not the case that the Commonwealth requested a transportation service to an ultimate destination and Helicopter Resources made its own arrangements to make that happen, including sourcing and caching any necessary fuel. The pilots were employees of a contractor carrying out work for a business or undertaking and are therefore workers under the Commonwealth Act: s 7. Work was carried out at a place, including where a worker goes or is likely to be while at work, namely the incident site: s 8. Accordingly, the Commonwealth Act applies to that place, being the incident site, and imposes a work health and safety duty on Helicopter Resources.

What was the probability of crevasses at the incident site?

112. Evidence was received during the hearing from a glaciologist, Dr Colgan. Dr Colgan has extensive experience in the Arctic and provided clear, consistent and comprehensible evidence about the mechanics of ice movement, and the resultant formation and frequency of crevasses. He carefully quantified the probability of crevasses being present at the incident site. He limited his calculations to those crevasses that may be hazardous to a person walking on the surface, because they were wide enough for a person to fall in and narrow enough to support a snow bridge that could conceal the crevasse. He noted that crevasses are more frequent lower in the ice flow due to the accumulation of damage upstream. He also explained how crevasses are formed near the grounding line and where there is a high gradient in the velocity of the ice, transverse to the flow of the ice, and noted the incident site was located near the grounding line and at a location with a high gradient in the ice velocity.
113. Dr Colgan ultimately calculated that at the incident site a random step on the surface would have a 98.5% chance of not being above a crevasse, and that the probability would reduce with each subsequent step, as the subsequent steps were dependent on the last. By the eightieth step that probability would reduce to approximately 30%. Put another way, by the eightieth step, the probability of placing a foot into a hazardous crevasse was 70%.
114. Dr Colgan also provided qualitative descriptions about the probability of crevasses at the incident site. At the incident site, it could be assumed that hazardous crevasse spacing would be between 20 and 200 m, and you would be hard pressed to find an area 100 m by 100 m without a crevasse.
115. While the above evidence was challenged to some degree, there was no competing evidence and Dr Colgan convincingly maintained his position. I accept his evidence and find accordingly.

Was a landing site reconnaissance conducted prior to landing on 11 January 2016?

116. It is clear from the evidence that the pilots received training that an aerial reconnaissance was an important safety step before landing a helicopter. It is also clear that at the remote and unprepared landing sites, the pilots were in the best position to visually assess the site before landing.
117. Mr Sutton is the only surviving witness of whether either pilot conducted an aerial reconnaissance shortly before landing at the incident site on 11 January 2016. In his evidence, Mr Sutton described Mr Wood arriving at the incident site first and lowering his drums before veering off to one side. He did not observe Mr Wood conduct a reconnaissance but noted that Mr Wood's helicopter was out of sight for a period of time while Mr Sutton was lowering his fuel drums to the surface.
118. There was video evidence taken from inside Mr Wood's helicopter at the relevant time. It suggested a left turn after dropping the fuel drums and a landing approximately two minutes later. Mr Lomas provided the following conclusion about whether Mr Wood conducted an aerial reconnaissance after dropping the drums and before landing, based upon that video, including the timings and the instrument readings observable in the video:

So it seemed to me like a rushed approach. So after the fuel drums were released, there was adequate time available without the distraction of the sling load underneath the aircraft for him to have conducted a thorough reconnaissance of the site and nothing was evident from watching the video that no reconnaissance was conducted of the site prior to the landing taking place.

119. Additionally, there was no direct evidence from Mr Sutton that he did or did not conduct an orbital reconnaissance himself. There is evidence that Mr Sutton told Mr Lomas that he did not himself conduct a reconnaissance the day of the incident at the incident site, although that admission was denied by Mr Sutton in court.
120. In the above circumstances, I am not persuaded to the requisite standard that I can make a positive finding that between them, Mr Wood and Mr Sutton did not conduct an aerial reconnaissance before landing at the incident site on the day of the incident.

Did the Civil Aviation Safety Authority's rules prevent the carrying of Field Training Officers when carrying fuel externally by sling?

121. Ms Labudda indicated she was guided by advice from the pilots in relation to air operations. Mr Sutton gave categorical evidence that FTOs could not be carried in a helicopter while it was conducting sling load operations. No further explanation was sought from, or offered by, Mr Sutton. It appears that during the 2015/16 summer season, pilots and the AAD were operating on the understanding there was a non-negotiable rule that passengers, including FTOs, could not travel in a helicopter during sling load operations.
122. *Civil Aviation Order 29.6* is made under regs 5 and 303 of the *Civil Aviation Regulations 1988* and regulates helicopter external sling load operations. It includes the following provision:

4 Carriage of persons

The pilot in command of a helicopter engaged in sling load operations shall not permit any person to be carried in the helicopter except:

- (a) a flight crew member; or
- (b) a flight crew member under training; or
- (c) a person who performs an essential function in connection with sling load operations.

123. The above provision provides several exceptions to the general prohibition. It is arguable that a FTO tasked with assessing the safety of a landing site could fall within the third exception, being a person who performs an essential function in connection with sling load operations. In any event the Civil Aviation Authority may grant an exemption to a provision of a Civil Aviation Order: Reg 11.160 of the *Civil Aviation Safety Regulations 1998*.
124. In summary, FTO could be carried in helicopters conducting sling load operations, if one of the above exceptions applied or if the Civil Aviation Authority had granted an exemption. There was no evidence that a relevant exemption had been requested or provided.

Did any failure to comply with a duty expose an individual to a risk of death or serious injury?

125. The prosecution pleaded that each relevant pilot on each occasion was exposed to the risk of serious injury or death as a result of falling into a crevasse. Those risks are understood in the context of the hazards pleaded. In each case the hazard was pleaded as the existence of crevasses, in particular, hidden or snow-bridged crevasses, at deep field sites located on the WIS.
126. However, save for the third occasion, there was no snow covering at the landing sites. It could therefore be argued that on the first and second occasions, the hazard relating to snow did not exist and therefore there was no resultant risk of falling into a crevasse. However, that reasoning would erroneously focus too closely on the facts now known and involve impermissible hindsight reasoning. The Court in *Morrison v Powercoal Pty Ltd & Anor* [2004] NSWIRComm 297; 137 IR 253 at [107] and [108] made the following observations in relation to similar reasoning:
- 107 ... focussing to (sic) closely on a narrow class of risk, defined by reference to the peculiarities of the incident under scrutiny, can lead to the error of concentrating on the incident itself. Such an approach may well lead to a misunderstanding of the real facts on which a charge is based. This is an error into which Peterson J fell. His Honour found, in effect, that the reason the roof fell and caused the fatal injury to Mr Edwards was because of a particular weakness in the roof identified by three of the expert witnesses, which was exacerbated, his Honour seems to have considered, by the reduction in size of stook X. That is, his Honour found that the risk to safety lay in the roof weakness and because the weakness was not known to the defendant and was not detectable, there was no risk.
- 108 It may be seen that his Honour focussed on the specific detriment to safety (i.e., the weakened section of the roof that collapsed because of the mining of stook X) causing the fatal injury to Mr Edwards. This was not a risk to which the charges were directed. The charges ranged much more widely (and over a longer period than just the shift on 17 July 1998 when stook X was mined), They alleged there was a risk of the roof falling in while employees were in the vicinity of 1, 2 and 3 Headings adjacent to 25 cut through and that the defendant failed to avert the risk by not providing an adequate system for assessing the roof and not implementing and (sic) adequate system of recording and notification to employees of roof problems and roof history. This is the risk his Honour was required to address and it was not open to the trial judge to formulate a different risk.
127. It is clear from the findings above that the hazard of hidden crevasses did exist. Additionally, those hazards were documented in the publications of each defendant. Sending pilots out to land their helicopters and walk on terrain where such crevasses may exist and be covered by snow, created a risk that the pilots may fall into such crevasses. The obvious potential for the pilots to suffer injury, including hypothermia, amounted to a risk of serious injury or death.
128. If it be relevant, I assess that such risks were not merely speculative or unduly remote. The above findings in relation to the probability of crevasses at the incident site clearly indicate that there was a very real risk of stepping into a hidden crevasse, which may be large enough to fall into.
129. I therefore find that on each relevant occasion, the relevant pilots were exposed to a risk of serious injury or death.

Did the Commonwealth fail to comply with a health and safety duty?

130. As described above, the question about any failure to comply with a health and safety duty requires the consideration of the specified measures pleaded. The Commonwealth submitted there was also a preliminary question, and formulated a two-step process in the following way. The Court must be satisfied that:
- (a) the system in place failed to comply with the defendant's health and safety duty; and
 - (b) the defendant failed to take steps set out in the particulars of the breach alleged in the information, and those steps were reasonably practicable.
131. The above two step process suggests that each step is independent of the other. I am not persuaded that this is the case. It is clear the specified measures must be considered, and they must be assessed against what is reasonably practicable. I also accept that if any extant measures in place satisfied the health and safety duty, then it doesn't matter whether the additional specified measures were reasonably practicable and therefore also available. However, the duty depends upon whether a defendant ensured, so far as was reasonably practicable, the health and safety of the worker. This question, even for the extant measures, must depend upon the nature of the hazard, what options are available to address the hazard and a judgment about which of those options are effective and reasonably practicable. In some cases, there may be an obvious way to address a hazard and the absence of that measure will be definitive. In other cases, there may be a range of ways to address a hazard and what is appropriate will need to be measured against alternative options. To my mind, the most effective measure to ensure the health and safety that was also reasonably practicable, would be the standard required to satisfy the health and safety duty. Accordingly, the above two questions, while both relevant, must be considered together.

The extant arrangements

132. On each occasion, the pilots were tasked to attend a remote and unprepared landing site. The site was located at a place where crevasses existed, including those which could consume an individual.
133. The terrain included exposed blue ice surfaces where the crevasses could be seen, and snow-covered surfaces where crevasses could be hidden. The pilots were trained to prefer blue ice surfaces for the purpose of landing but were not directed to land only on blue ice surfaces.
134. Both the 2012 fuel cache site and the incident site were beyond the range of the helicopters to return with the fuel drums. That meant if the helicopter did not land at the remote site, it could not return to Davis Station without at some point releasing the fuel drums along with the attached drum hooks and long line.
135. The risk assessments did not anticipate the possibility that a pilot may not be able to locate a fuel cache site or that a site may be covered in snow and therefore no longer be suitable to land at. Consequently, no procedures were agreed for such scenarios.
136. Much was made during the hearing about the pilot making the ultimate decision to land, and that the pilots were always free to refuse to land. Submissions were also made that the pilots were in the best position to assess any landing site. I accept both

contentions. However, the existence of those two features on their own could not be enough to address the persistent risk of dangerous hidden crevasses at remote and unprepared fuel cache sites.

137. The Commonwealth also framed its submissions in a way that suggested highly qualified helicopter pilots should themselves have been responsible for choosing appropriate and safe landing sites, and that any failure to do so could not be the responsibility of the Commonwealth. There appeared to be an implication that the choice of landing site was something wholly within the purview of flight operations and not within the responsibility of the AAD. I reject that contention. It is clear that the pilots and Helicopter Resources were the helicopter subject matter experts, and that the AAD staff relied upon their advice about what could and could not be safely done with respect to helicopter operations. However, the AAD hosted those operations and were themselves subject matter experts with respect to operations in Antarctica. The AAD was best placed to decide how projects and other operations could be safely conducted. This extended to where fuel cache sites should be located and what methods should be employed to assess the suitability of those sites before pilots were tasked to land and walk on those sites for the purpose of refuelling and or collecting their sling hardware.

The specified measures – site assessment

138. The prosecution specified a cascading series of measures that they say should have been used prior to the pilots landing and walking on the sites. In relation to the Commonwealth I have determined that each element of that series and the series as a complete set were reasonably practicable in the case of both the 2012 fuel cache site and the incident site.
139. I have approached the assessment of the steps with a focus on what would be reasonably practicable for these particular sites at those times, rather than considering a broader question about whether these steps would be reasonably practicable for all helicopter landings at all remote locations. For example, the purpose of the visit, the distance of a site from Davis Station, the travel time and whether the helicopter could reach the site without first refuelling would all impact upon whether the steps were reasonably practicable.

Satellite imagery

140. The first step involved the obtaining and analysing of publicly available satellite imagery of the sites to determine if there was evidence of crevassing and the location of the grounding line and, if such analysis indicated that there was likely to be minimal crevassing at the site, to proceed to the next step. The evidence indicated that such imagery was of a resolution that could not identify individual crevasses but could contain features that indicated the relative propensity of crevassing at the site. That imagery was often years old and that while individual crevasses may move with the ice flow, the propensity of the area to crevasse would remain the same. The evidence also very clearly indicated that such imagery could not be expected to be recent or in real time. The evidence also demonstrated that the AAD had possession of, and access to, such imagery, and at times used the imagery for site assessment purposes.
141. The fact that the imagery may be old, and that the step may need to be repeated does not cause me concern. Any repetition of the step where the imagery remained the same would be effortless. However, the step would remain important because new

imagery may become available and the new assessment may provide additional information.

142. There was a submission that at times it was necessary for helicopters to land at sites that were heavily crevassed, and therefore the requirement that the site not be used unless the imagery suggested minimal crevassing was not reasonably practicable. However, in this case the relevant sites were simply used for fuel caches. The distances were such that a fuel cache site could have easily been selected away from the grounding line and away from a location of a high ice velocity gradient. That was the case notwithstanding any preference to fly in sight of the open sea.
143. In those circumstances I comfortably find that this step was reasonably practicable. I also find that any need to repeat this step was also reasonably practicable.

Air task risk assessment

144. The second step involved the conduct of an air task risk assessment that specifically addressed the crevasse hazard. The evidence demonstrated that a risk assessment process did occur on each occasion and I do not understand there to be any submission that this step would not have been reasonably practicable. Accordingly, I find that this step was reasonably practicable, including when the step is repeated for a subsequent flight.

Low sun helicopter reconnaissance

145. The third step involved flying around the landing site at a time of the day when the sun was low in the sky to allow a suitably qualified person to visibly inspect the site for any signs of crevasses, including snow bridges; and if the site was assessed as likely to be minimally crevassed to then proceed to the next step. It was clear from the evidence that a low sun angle made a significant difference in detecting features on the surface of the snow, FTOs were available to conduct the assessment, and pilots could also be trained to do so. It was also clear from the evidence that this step could be conducted along with the subsequent step of probing the snow during the same flight.
146. I have conducted this assessment on the basis that a preliminary flight would be required in addition to the flight carrying the sling load. I do so because, while the Civil Aviation Orders may not have demanded a separate flight, there may have been other undisclosed factors that could have rendered a second flight necessary, for example the load limit of the helicopters.
147. Much was made of the additional resource burden an additional flight would have on the AAD. Some witnesses assessed that if the specified measures were required it would be near impossible for the AAD to attend to the projects. The concerns focused on the additional flights required for every remote landing. However and as indicated above, different consideration would apply to different landing sites. The opinions were also based, at times, on the assumption that the site assessment would need to occur every two weeks. That is not what was proposed in those measures. Rather they would need to occur at least once two weeks before every visit. I place little weight on those opinions.
148. When I take into account the challenging weather in Antarctica, the time it would take to conduct a preliminary flight for the purpose of this step and any consequential heli crevasse probing and the likely after-hours timing of this step I still find that the step is

reasonably practicable. The difficult weather of Antarctica is a reason to take care, rather than take short cuts. That was a constant theme throughout the evidence. The time required for an additional flight to these locations was not such as to make the step not reasonably practicable. There were various examples within the evidence of flight operations continuing for many hours during the day. The after-hours requirement, and the need for additional staff to be on duty at those times, is unremarkable and a feature of many workplaces that is routinely managed by simply adjusting hours of duty. Those adjustments could have been achieved even if the window of opportunity was unpredictable due to weather considerations. I have also balanced the benefit with the inherent risk of the additional flight.

149. I also note that this step serves a purpose even if the site is found to be blue ice and free of snow. It was clear from the evidence that the pilots travelled to the sites not knowing whether the sites would be as they were on a previous occasion or, for example, covered in new snow. The mere possibility that the site may be without snow and could therefore be inspected without the assistance of the sun being low in the sky, could not be a reason to render this step other than reasonably practicable.
150. Accordingly, I find that this step was reasonably practicable, including if it was required to be repeated for a subsequent visit.

Heli crevasse probing

151. The fourth step involved a process of deploying two FTOs from the helicopter to physically probe the snow at a landing site, for the purpose of detecting any hidden crevasses. The evidence of Messrs Benevente and Sutton about this process was consistent with the extract referred to above from *Volume 1: Station & Field manual*. In short, the helicopter would land lightly at the site, an FTO would exit the helicopter and move away from the rotor while tethered to the helicopter and then anchor his or her position. The second FTO would move to the first FTO, while tethered to the first FTO. The helicopter would depart and await clearance to return. The two FTOs would take turns probing the snow in a deliberate pattern while tethered to the other. The FTOs would mark a safe area and guide the helicopter back into land within the safe area.
152. The obvious features of this step are the involvement of the two FTOs, the risk of rotor strike and how the step serves no purpose on blue ice. The presence of the two FTOs would most likely necessitate an additional flight prior to transporting a sling load. However, this step could be combined with the low sun reconnaissance. The technique was known to the AAD and conducted at other locations, for example when landing on the Sorsal Glacier. The risk of rotor strike was managed by practicing the sequence with the helicopter shortly before leaving Davis Station and conducting only minimal probing, and then only outside the rotor area, until the helicopter retreated from the site. The Commonwealth made submissions that as the surface was free of snow on some occasions, this step was impossible to do. If that submission was to suggest that this step was therefore not reasonably practicable, I reject it. The series of steps are for the purpose of making a reliable assessment of the site. The mere fact that one step may not be necessary because on a particular occasion there may be no snow cover, cannot render the step not reasonably practicable. The process is designed to cover circumstances when the ice is covered with snow and therefore remains applicable and of utility if there is a real chance the surface may be covered with snow. As this step is demonstrably not necessary when there is no snow, it is implicit in the scheme that it need not be physically carried out in the absence of snow. To interpret

the measure otherwise would be absurd. In summary, it would still be necessary to be prepared to conduct this step, in case a site was covered with snow.

153. For the above reasons I find that this step was reasonably practicable, including if required for a subsequent visit.

Marking boundary of safe area

154. The fifth step was to mark the boundary of the safe area. This provided a benefit for those due to attend in the immediate future and those who may attend later while the site assessment remained valid. The defendants did not take much issue with this. Clearly this was a relatively quick and simple step that identified areas that had been probed and areas that had not. The possibility that the surface may be blue ice does not render this step not reasonably practicable. Accordingly, I find that this step was reasonably practicable, including if required to be repeated for a subsequent visit.

Repeating the steps if two weeks or a significant weather event has occurred since the last assessment

155. Repeated assessments of the same sites would have imposed upon the limited resources available at Davis Station. The evidence is also clear that appropriate weather windows for helicopter flights were limited and unpredictable in Antarctica. The submissions of the defendants focus on the potential unworkability of this measure as a whole and extended to other sites. However, and as discussed above, it would not be appropriate to extrapolate the question about what is reasonably practicable to all landing sites for all purposes.
156. It also deserves repeating that the focus of the defendants was erroneously on the claim that these steps would need to be repeated every 14 days. That is not what was proposed by the specified measures. Further, once the specified measures were defined and anticipated, it would have been open to the AAD to adjust resources and work sequencing to minimise the number of trips necessary in order to service Project King.

157. Ultimately, when I consider:

- (a) the likelihood of falling into a crevasse at the 2012 and incident sites;
- (b) the real risk of serious injury or death if that were to occur;
- (c) the fact that the AAD knew about the crevasse hazard and about the methods specified that could minimise that risk;
- (d) that those specified measures were available to the AAD; and
- (e) after assessing the extent of the risk and the available ways of eliminating or minimising the risk, the cost associated with the available ways of eliminating or minimising the risk, including whether such costs were grossly disproportionate to the risk;

I am satisfied beyond reasonable doubt that that the extant measures did not meet the health and safety duty, and the cascading series of steps of the specified measures, individually and together, were reasonably practicable to ensure the health and safety of the pilots. I therefore find that in relation to the first and third flights the Commonwealth failed to comply with its health and safety duty.

The specified measures – personal protective equipment

158. In relation to the Commonwealth and the second flight, the prosecution specified that the pilots should have been required to wear appropriate waterproof and thermally insulated clothing at all times when outside the helicopter at remote field sites. I am not convinced that this requirement was reasonably practicable.
159. The evidence was clear that bulky clothing could not be worn, when conducting the sling load operations, and it was too warm in the helicopter to wear all the issued clothing. The evidence is that on the second occasion Mr Sutton had the first two layers on. However, there is no evidence about what Mr Wood was wearing. On the third occasion Mr Wood was not wearing his thermals or the outer layer. I take judicial notice that while it may have been relatively easy to don an outer layer after landing the helicopter, it would have been more difficult to don the thermal under layers, which may have involved the temporary removal of the mid layer. If that had occurred when Mr Wood was adjacent to his helicopter on the day of the incident, he may have fallen into the crevasse while attempting to don the additional clothing.
160. Further, I find much force in the argument that an inflexible requirement that pilots are to wear all issued survival clothing at all times outside of the helicopter would remove the opportunity for the pilots to regulate their own body temperature, and that may lead to unintended consequences, such as sweating, which may in turn be counterproductive.
161. Ultimately, I am left with a reasonable doubt about the reasonable practicability of this measure to ensure the health and safety of the pilots.

Did Helicopter Resources fail to comply with a health and safety duty?

162. The prosecution alleged that for each of the three occasions, Helicopter Resources should have ensured the above site assessment had taken place before permitting its pilots to land and walk at the relevant sites.
163. Helicopter Resources had provided the pilots with Antarctic specific flight training and produced the *Pilots Operations Safety Manual Volume 2: Aircraft operations (helicopters only)*, which provided relevant and helpful information about the crevasse hazard. Helicopter Resources also made its pilots available to participate in the suite of training provided by AAD to personnel who deployed to the AAT. Helicopter Resources was aware that the pilots were also provided with the relevant AAD publications that addressed the crevasse hazard. As described above, the AAD hosted the pilots. It provided training, accommodation, equipment, personnel and advice necessary for operations within Antarctica. The pilots, and through them Helicopter Resources, were clearly best placed to control aircraft inflight operations, and manage the hazards associated with flying. However, the Commonwealth was exclusively placed to be informed about environmental and logistical factors and to manage the movement and placement of personnel on the ground. That included at remote fuel cache sites.
164. The specified measures are obviously detailed and designed to carefully and precisely address the crevasse hazard at a remote fuel cache site. It is difficult to find that Helicopter Resources knew or ought to have known that this particular suite of measures was appropriate or necessary. This is because unlike the AAD, Helicopter Resources was not well placed to assess the likelihood of crevasses being present at

the site or know all the various ways to minimise the risk of falling into a hidden crevasse, or the various costs, financial and otherwise, associated with implementing any, some or all of the available measures. Much of that information was with the AAD and not with Helicopter Resources.

165. For example, there is no evidence that Helicopter Resources was aware, or ought to have been aware, of how satellite images may be used for the purpose of determining whether a remote site was more prone to crevassing than another site. That was specialist knowledge and it was reasonable for Helicopter Resources to rely upon the expertise of the AAD in relation to Antarctic operations.
166. It remains not appropriate for me to make a finding about whether Helicopter Resources should have taken other measures.
167. In all the circumstances I am not persuaded beyond reasonable doubt, that it was reasonably practicable for Helicopter Resources to have insisted upon the specified measures being conducted before permitting its pilots to land and walk on remote sites.

Orders

168. For the above reasons I find:
- (a) the Commonwealth guilty of charges cc 17/44149 and cc 17/44151;
 - (b) the Commonwealth not guilty of charge cc 17/44150; and
 - (c) Helicopter Resources not guilty of charges cc 17/44152, cc 17/44153 and cc 17/44154
169. I will hear the prosecution and Helicopter Resources further in relation to appropriate orders and the prosecution and the Commonwealth further in relation to sentencing.

I certify that the preceding one hundred and sixty-nine [169] numbered paragraphs are a true copy of the reasons for the judgment of his Honour Acting Chief Magistrate Theakston.

Associate: Lauren Dreyar

Date: 6 December 2019

business or undertaking at Davis Station in the Australian Antarctic Territory and its environs, and who had a health and safety duty under sections 19(1) of the *Work Health and Safety Act 2011* (Cth) (**WHS Act**), to ensure, so far as was reasonably practicable, the health and safety of workers engaged or caused to be engaged by the Defendant, and in particular Mr Bryan Patterson, while they were at work in the Defendant's business or undertaking, failed to comply with that duty and exposed workers to the risk of death or serious injury; contrary to section 32 of the WHS Act.

Particulars

1. At all material times, the Defendant as the Commonwealth of Australia was a person conducting a business or undertaking within the meaning of the WHS Act.
2. At all material times, the Defendant, as part of its business or undertaking:
 - 2.1 operated the Australian Antarctic Division (**AAD**);
 - 2.2 assigned the AAD with the advancement of Australia's strategic, scientific, environmental and economic interests in Antarctica by protecting, administering and researching the region;
3. At all material times, the following were workplaces of the Defendant in the Australian Antarctic Territory:
 - 3.1 Davis Station, being one of three major established stations in the Australian Antarctic Territory (**Davis Station**);

- 3.2 A deep field fuel cache site on the West Ice Shelf which had been established on about 13 December 2012 (**the 2012 Site**) and a site established on 8 December 2015, located at approximately S67.7908°, E81.4649° (**the Incident Site**); and
- 3.3 Helicopter model AS350B3E “Squirrel” with tail number VH-UUI.
4. On 4 September 2012, the Defendant entered into a Service Agreement with Helicopter Resources Pty Ltd (**HeliRes**), which provided for the supply of helicopters and helicopter pilots by HeliRes to the then Department of Sustainability, Environment, Water, Population and Communities (**the Department**) as logistical support to the Australian Antarctic Program in the Australian Antarctic Territory (**HeliRes Service Agreement**).
5. The HeliRes Service Agreement was in operation as at all material times.
6. At all material times:
- 6.1 Mr Bryan Patterson was an employee of HeliRes and had been assigned, pursuant to the HeliRes Service Agreement, to Davis Station; and
- 6.2 the Defendant caused Mr Bryan Patterson to be engaged as a worker, as a helicopter pilot stationed at Davis Station.
7. At all material times, the Defendant had a documented procedure for:
- 7.1 conducting a risk assessment of air tasks (including helicopter flights to deep field fuel cache sites) and post-air task debriefing, being:

- 7.1.1 the Air Task Approval Process and Risk Assessment protocol;
and
- 7.1.2 Aircraft tasking requirements;
- 7.1.3 low-light aerial reconnaissance to check for, amongst other things, the presence of crevasses at possible landing sites;
- 7.1.4 helicopter crevasse probing utilising Field Training Officers (**FTOs**) to physically check for the presence of crevasses at sites where scientists, researchers and/or other personnel would be working; and
- 7.1.5 a system of communication between Davis Station and helicopter pilots whilst they were in the air and at sites remote from Davis Station, including deep field fuel cache sites, being an iridium satellite phone with an operator located at Davis Station.

8. At all material times, the West Ice Shelf was glaciated terrain and had crevasses present at various locations.

9. On 8 December 2015:

- 9.1 Ms Sharon Labudda, an employee of the Commonwealth working in the AAD at Davis Station as Operations Co-ordinator, directed Mr Patterson to transport, by helicopter, drums of aviator turbine kerosene (**ATK**) from Davis Station to the 2012 Site and to leave the fuel drums at that location as a fuel cache site;

- 9.2 Mr Patterson flew the helicopter model AS350B3E “Squirrel” with tail number VH-UUI from Davis Station to the 2012 Site but did not land at that location;
- 9.3 Mr Patterson communicated by satellite phone with Davis Station and advised that he had decided not to land at the 2012 Site as there were too many crevasses, he did not like the look of the area and that he could not see the other fuel drums that had previously been deposited there. Mr Patterson advised Davis Station that he would fly on in search of the previously deposited fuel drums;
- 9.4 Mr Patterson then flew approximately 17nm in an easterly direction and decided to land at the Incident Site;
- 9.5 Mr Patterson deposited the drums on to the ice and landed the helicopter at the Incident Site;
- 9.6 Mr Patterson got out of the helicopter, walked across the ice to collect the longlines and drum hooks. He took at least two (2) photographs; and
- 9.7 Mr Patterson walked back to the helicopter, departed the Incident Site and returned to Davis Station.

The Duty

10. The Defendant had a health and safety duty pursuant to section 19(1) of the WHS Act to ensure, so far as was reasonably practicable, the health and safety of workers including Mr Bryan Patterson, whilst they were utilising or

establishing fuel cache sites on the West Ice Shelf operating out of Davis Station (**Duty**).

Hazard in the workplace

11. There was a hazard in the workplace, namely, the existence of crevasses, in particular, hidden or snow-bridged crevasses, at deep field sites located on the West Ice Shelf, including the 2012 Site and the Incident Site.

The Risk

12. The health and safety risk to which Mr Bryan Patterson was exposed was a risk of serious injury or death as a result of falling into a crevasse (**Risk**).

Particulars of the acts or omissions in failing, so far as was reasonably practicable, to eliminate or otherwise minimise the Risk

13. The Defendant failed to comply with the Duty by failing to ensure, so far as was reasonably practicable, the health and safety of workers, in particular Bryan Patterson, in that it permitted the said workers to land helicopters and walk on the ice surface at deep field fuel cache sites, including the 2012 Site and the Incident Site, without first assessing those sites, in circumstances where landing on or traversing the ice at those sites was not safe because of the possible presence of crevasses, including crevasses which were hidden by snow bridges.

14. The Defendant failed to comply with the Duty by failing to provide and maintain a safe system of work which utilised the reasonably practicable measures as specified below.
15. The Defendant failed to provide and maintain a safe system of work for the establishment and utilisation of deep field fuel cache sites, including the 2012 Site and the Incident Site in that;
 - 15.1 it failed to ensure that before workers were permitted to land a helicopter and/or walk on the ice surface at the deep field fuel cache sites, including the 2012 Site and the Incident Site, the sites had been subject to the following testing and assessment to confirm that, so far as was reasonably practicable, there were no crevasses at each site:
 - 15.1.1 obtaining and analysing publicly available satellite imagery of the site to determine if there was evidence of crevassing and the location of the grounding line (where crevassing is likely to be more prevalent) and, if such analysis indicated that there was likely to be minimal crevassing at that site, proceeding to the next step of:
 - 15.1.2 engaging in an air task risk assessment process in respect of the site for the purposes of identifying risks of crevasses; and thereafter:
 - 15.1.3 undertaking low-light helicopter reconnaissance by someone suitably trained to do so, such as a Field Training Officer, to inspect the site and determine if there was evidence of crevasses, including crevasses hidden by snow bridges; and,

if such analysis indicated that there was likely to be minimal crevassing at that site, proceeding to the next step of:

- 15.1.4 undertaking helicopter-crevasse probing of the site by someone suitably trained to do so such as Field Training Officers; and
- 15.1.5 marking out the boundaries of the area in which it was deemed safe to land and walk and beyond which would be an exclusion zone; and
- 15.1.6 re-doing the steps at 15.1.1 to 15.1.5 if more than two weeks had expired or if there had been a significant weather event since the last assessment.

~~15.2 it failed to require helicopter pilots not to land at, walk on or conduct any work at a fuel cache site unless:~~

~~15.2.1 there was an emergency which required the pilot to land; or~~

~~15.2.2 the site had been tested and assessed in accordance with the procedure set out at sub paragraphs 15.1.1 to 15.1.6.~~

~~15.3 it failed to require helicopter pilots who, like Mr Patterson did on 8 December 2015, determined that the site was not suitable for landing, to return to Davis Station unless:~~

~~15.3.1 there was an emergency which required the pilot to land; or~~

~~15.3.2 there was another site which had been tested and assessed in accordance with the procedure set out at sub paragraphs 15.1.1 to 15.1.6 in the vicinity and the pilot had been given~~

~~approval by the Operations Coordinator or Station Manager
at Davis Station to land at that alternate site.~~

Result of Failure to comply with Duty

16. As a result of the Defendant's failures, workers including Mr Bryan Patterson, were exposed to a risk of death or serious injury.

CHARGE 2

2. On or about 28 December 2015, the Commonwealth of Australia acting through its responsible agency, the Department of the Environment and Energy (ABN 34 190 894 983) (**Defendant**) being a person conducting a business or undertaking at Davis Station in the Australian Antarctic Territory and its environs, and who had a health and safety duty under sections 19(1) of the *Work Health and Safety Act 2011* (Cth) (**WHS Act**), to ensure, so far as was reasonably practicable, the health and safety of workers engaged or caused to be engaged by the Defendant, and in particular Mr David Wood and Mr Paul Sutton, while they were at work in the Defendant's business or undertaking, failed to comply with that duty and exposed workers to the risk of death or serious injury, contrary to section 32 of the WHS Act.

Particulars

1. At all material times, the Defendant as the Commonwealth of Australia was a person conducting a business or undertaking within the meaning of the WHS Act.
2. At all material times, the Defendant, as part of its business or undertaking:

- 2.1 operated the Australian Antarctic Division (**AAD**);
- 2.2 assigned the AAD with the advancement of Australia's strategic, scientific, environmental and economic interests in Antarctica by protecting, administering and researching the region;
3. At all material times, the following were workplaces of the Defendant in the Australian Antarctic Territory:
 - 3.1 Davis Station, being one of three major established stations in the Australian Antarctic Territory (**Davis Station**);
 - 3.2 A deep field fuel cache site on the West Ice Shelf, located at approximately S67.7908°, E81.4649° (**Incident Site**); and
 - 3.3 Two (2) helicopters, model AS350B3E "Squirrel" with tail numbers VH-UUG and VH-UUI.
4. On 4 September 2012, the Defendant entered into a Service Agreement with Helicopter Resources Pty Ltd (**HeliRes**), which provided for the supply of helicopters and helicopter pilots by HeliRes to the then Department of Sustainability, Environment, Water, Population and Communities (**the Department**) as logistical support to the Australian Antarctic Program in the Australian Antarctic Territory (**HeliRes Service Agreement**).
5. The HeliRes Service Agreement was in operation as at all material times.
6. At all material times:

- 6.1 Mr David Wood and Mr Paul Sutton were employees of HeliRes and had been assigned, pursuant to the HeliRes Service Agreement, to Davis Station; and
 - 6.2 the Defendant caused Mr David Wood and Mr Paul Sutton to be engaged as workers, as helicopter pilots stationed at Davis Station.
7. At all material times, the Defendant had a documented procedure for:
- 7.1 conducting a risk assessment of air tasks (including helicopter flights to deep field fuel cache sites) and post-air task debriefing, being:
 - 7.1.1 the Air Task Approval Process and Risk Assessment protocol; and
 - 7.1.2 Aircraft tasking requirements;
 - 7.1.3 low-light aerial reconnaissance to check for, amongst other things, the presence of crevasses at possible landing sites;
 - 7.1.4 helicopter crevasse probing utilising Field Training Officers (**FTOs**) to physically check for the presence of crevasses at sites where scientists, researchers and/or other personnel would be working; and
 - 7.1.5 a system of communication between Davis Station and helicopter pilots whilst they were in the air and at sites remote from Davis Station, including deep field fuel cache sites, being an iridium satellite phone with an operator located at Davis Station.

8. At all material times, the West Ice Shelf was glaciated terrain and had crevasses present at various locations.
9. On 28 December 2015:
 - 9.1 Ms Sharon Labudda, an employee of the Commonwealth working in the AAD at Davis Station as Operations Co-ordinator, directed Mr Wood and Mr Sutton to transport, by helicopter, eight (8) drums of aviator turbine kerosene (ATK) by flying out from Davis Station to two deep field locations being:
 - 9.1.1 the Incident Site, at which the helicopters would refuel en route to the Nunatak 1 site (**Nunatak 1**); and then to
 - 9.1.2 Nunatak 1 at which the eight drums of ATK would be deposited as a fuel cache;
 - 9.2 Mr Wood and Mr Sutton departed Davis Station at approximately 09:16 hrs and flew to the Incident Site. Mr Wood flew the helicopter model AS350B3E “Squirrel” with tail number VH-UUG carrying 4 x 200 litre drums of ATK by sling load beneath the helicopter and Mr Sutton flew the helicopter model AS350B3E “Squirrel” with tail number VH-UUI carrying 4 x 200 litre drums of ATK by sling load beneath the helicopter;
 - 9.3 upon arrival at the Incident Site at approximately 10:14, Mr Sutton observed blue ice and crevassing prior to landing;
 - 9.4 Mr Wood and Mr Sutton slung their ATK drums onto the ice, landed their helicopters and then got out;

- 9.5 Mr Wood and Mr Sutton proceeded to refuel their helicopters by walking across the ice and retrieving fuel from the drums that had been deposited there on a previous occasion;
- 9.6 Mr Wood and Mr Sutton rolled an ATK drum towards Mr Wood's helicopter, and while doing so, they rolled it and walked over a snow-bridged crevasse of about 0.5 metres in width;
- 9.7 after rolling the ATK drum over the crevasse, Mr Wood took photographs of the crevasse whilst kneeling at the side of it and leaning over;
- 9.8 Mr Wood and Mr Sutton walked back to their helicopters after the refuelling had been completed and departed the Incident Site at approximately 11:18 hrs;
- 9.9 Mr Wood and Mr Sutton flew to Nunatak 1 and prior to landing at Nunatak 1, Mr Wood and Mr Sutton observed the site to be a rocky outcrop, and Mr Wood selected a site nearby to land;
- 9.10 upon slinging their ATK drums and landing their helicopters at Nunatak 1, Mr Wood and Mr Sutton got out of their helicopters, walked across the ice and retrieved the longlines and drum hooks and also took photographs;
- 9.11 Mr Wood and Mr Sutton departed Nunatak 1 at 12:49 hrs and flew to Davis Station arriving at 14:09 hrs;
- 9.12 Mr Wood and Mr Sutton were not wearing waterproof and appropriately thermally insulated pants, parkas and gloves whilst on the ice at the Incident Site and Nunatak 1.

The Duty

10. The Defendant had a health and safety duty pursuant to section 19(1) of the WHS Act to ensure, so far as was reasonably practicable, the health and safety of workers including Mr David Wood and Mr Paul Sutton, whilst they were utilising or establishing fuel cache sites on the West Ice Shelf operating out of Davis Station (**Duty**).

Hazard in the workplace

11. There was a hazard in the workplace, namely, the existence of crevasses, in particular, hidden or snow-bridged crevasses, at deep field sites located on the West Ice Shelf, including the Incident Site.

The Risk

12. The health and safety risk to which Mr David Wood and Mr Paul Sutton were exposed was a risk of serious injury or death as a result of falling into a crevasse. (**Risk**)

Particulars of the acts or omissions in failing, so far as was reasonably practicable, to eliminate or otherwise minimise the Risk

- ~~13. The Defendant failed to comply with the Duty by failing to ensure, so far as was reasonably practicable, the health and safety of workers, in particular Mr David Wood and Mr Paul Sutton, in that it required the said workers to land helicopters and walk on the ice surface at deep field fuel cache sites, including the Incident Site, without first assessing those sites, in~~

~~circumstances where landing on or traversing the ice at those sites was not safe because of the possible presence of crevasses, including crevasses which were hidden by snow bridges.~~

~~14. The Defendant failed to comply with the Duty by failing to provide and maintain a safe system of work which utilised the reasonably practicable measures as specified below.~~

~~15. The Defendant failed to provide and maintain a safe system of work for the establishment and utilisation of deep field fuel cache sites, including the Incident Site in that;~~

~~15.1 it failed to ensure that before workers were required to land a helicopter and/or walk on the ice surface at the deep field fuel cache sites, including the Incident Site, the sites had been subject to the following testing and assessment to confirm that, so far as was reasonably practicable, there were no crevasses at each site:~~

~~15.1.1 obtaining and analysing publicly available satellite imagery of the site to determine if there was evidence of crevassing and the location of the grounding line (where crevassing is likely to be more prevalent) and, if such analysis indicated that there was likely to be minimal crevassing at that site, proceeding to the next step of:~~

~~15.1.2 engaging in an air task risk assessment process in respect of the site for the purposes of identifying risks of crevasses; and thereafter:~~

~~15.1.3 undertaking low light helicopter reconnaissance by someone suitably trained to do so, such as a Field Training Officer, to inspect the site and determine if there was evidence of crevasses, including crevasses hidden by snow bridges; and, if such analysis indicated that there was likely to be minimal crevassing at that site, proceeding to the next step of:~~

~~15.1.4 undertaking helicopter crevasse probing of the site by someone suitably trained to do so such as Field Training Officers; and~~

~~15.1.5 marking out the boundaries of the area in which it was deemed safe to land and walk and beyond which would be an exclusion zone; and~~

~~15.1.6 re-doing the steps at 15.1.1 to 15.1.5 if more than two weeks had expired or if there had been a significant weather event since the last assessment.~~

~~15.2 it failed to require helicopter pilots not to land at, walk on or conduct any work at a fuel cache site unless:~~

~~15.2.1 there was an emergency which required the pilot to land; or~~

~~15.2.2 the site had been tested and assessed in accordance with the procedure set out at sub paragraphs 15.1.1 to 15.1.6.~~

15.3 it failed to require helicopter pilots to wear Personal Protective Equipment (**PPE**) in the form of appropriately waterproof and appropriately thermally insulated clothing at all times when they

were outside the helicopter whilst at a deep field fuel cache which was reasonably practicable.

Result of failure to comply with Duty

16. As a result of the Defendant's failures, workers including Mr Wood and Mr Sutton, were exposed to a risk of death or serious injury.

CHARGE 3

3. On or about 11 January 2016, the Commonwealth of Australia acting through its responsible agency, the Department of the Environment and Energy (ABN 34 190 894 983) (**Defendant**) being a person conducting a business or undertaking at Davis Station in the Australian Antarctic Territory and its environs, and who had a health and safety duty under sections 19(1) of the *Work Health and Safety Act 2011* (Cth) (**WHS Act**), to ensure, so far as was reasonably practicable, the health and safety of workers engaged or caused to be engaged by the Defendant, and in particular Mr David Wood and Mr Paul Sutton, while they were at work in the Defendant's business or undertaking, failed to comply with that duty and exposed workers to the risk of death or serious injury, contrary to section 32 of the WHS Act.

Particulars

1. At all material times, the Defendant as the Commonwealth of Australia was a person conducting a business or undertaking within the meaning of the WHS Act.
2. At all material times, the Defendant, as part of its business or undertaking:

- 2.1 operated the Australian Antarctic Division (**AAD**);
 - 2.2 assigned the AAD with the advancement of Australia's strategic, scientific, environmental and economic interests in Antarctica by protecting, administering and researching the region;
3. At all material times, the following were workplaces of the Defendant in the Australian Antarctic Territory:
 - 3.1 Davis Station, being one of three major established stations in the Australian Antarctic Territory (**Davis Station**);
 - 3.2 A deep field fuel cache site on the West Ice Shelf, located at approximately S67.7908°, E81.4649° (**Incident Site**); and
 - 3.3 Two (2) helicopters, model AS350B3E "Squirrel" with tail numbers VH-UUG and VH-UUI.
4. On 4 September 2012, the Defendant entered into a Service Agreement with Helicopter Resources Pty Ltd (**HeliRes**), which provided for the supply of helicopters and helicopter pilots by HeliRes to the then Department of Sustainability, Environment, Water, Population and Communities (**the Department**) as logistical support to the Australian Antarctic Program in the Australian Antarctic Territory (**HeliRes Service Agreement**).
5. The HeliRes Service Agreement was in operation as at all material times.
6. At all material times:

- 6.1 Mr David Wood and Mr Paul Sutton were employees of HeliRes and had been assigned, pursuant to the HeliRes Service Agreement, to Davis Station; and
 - 6.2 the Defendant caused Mr David Wood and Mr Paul Sutton to be engaged as workers, as helicopter pilots stationed at Davis Station.
7. At all material times, the Defendant had a documented procedure for:
- 7.1 conducting a risk assessment of air tasks (including helicopter flights to deep field fuel cache sites) and post-air task debriefing, being:
 - 7.1.1 the Air Task Approval Process and Risk Assessment protocol; and
 - 7.1.2 Aircraft tasking requirements;
 - 7.1.3 low-light aerial reconnaissance to check for, amongst other things, the presence of crevasses at possible landing sites;
 - 7.1.4 helicopter crevasse probing utilising Field Training Officers (**FTOs**) to physically check for the presence of crevasses at sites where scientists, researchers and/or other personnel would be working; and
 - 7.1.5 a system of communication between Davis Station and helicopter pilots whilst they were in the air and at sites remote from Davis Station, including deep field fuel cache sites, being an iridium satellite phone with an operator located at Davis Station.

8. At all material times, the West Ice Shelf was glaciated terrain and had crevasses present at various locations.
9. On 11 January 2016:
 - 9.1 Ms Sharon Labudda, an employee of the Defendant working in the AAD at Davis Station as Operations Co-ordinator, directed Mr David Wood and Mr Paul Sutton to fly from Davis Station to the Incident Site in order to deposit eight (8) drums of aviation turbine kerosene (**ATK**) there;
 - 9.2 Mr Wood and Mr Sutton departed Davis Station at approximately 14.24 hrs and flew to the Incident Site. Mr Wood flew the helicopter model AS350B3E “Squirrel” with tail number VH-UUG and Mr Sutton flew the helicopter model AS350B3E “Squirrel” with tail number VH-UUI;
 - 9.3 Upon arrival at the Incident Site at approximately 15.50 hours, Mr Wood and Mr Sutton slung the drums onto the ice and landed their helicopters;
 - 9.4 Mr Sutton and Mr Wood got out of the helicopters;
 - 9.5 Mr Wood and Mr Sutton were not wearing waterproof and appropriately thermally insulated pants, parkas and gloves at the time they exited their respective helicopters;
 - 9.6 Mr Wood and Mr Sutton walked across the ice to stack the drums, and retrieve the long lines and drum hooks;

- 9.7 whilst walking across the ice, Mr Sutton fell into a crevasse down to his knee but got out and continued walking;
 - 9.8 at approximately 15:55, Mr Wood stepped onto a snow-bridge covering a crevasse that was directly under his helicopter (tail number VH-UUG) and fell approximately 10 metres into that crevasse;
 - 9.9 Mr Sutton walked across the ice and leaned over the crevasse into which Mr Wood had fallen. He yelled out to Mr Wood but could not hear him;
 - 9.10 Mr Sutton went aboard helicopter tail number VH-UUG and turned off the engine and returned to the crevasse to speak to Mr Wood;
 - 9.11 Mr Sutton walked back over the ice to helicopter tail number VH-UUI, took off from the Incident Site and flew back to Davis Station to seek search and rescue assistance;
 - 9.12 After being refitted for search and rescue, Mr Sutton flew helicopter VH-UUI back to the Incident Site with Field Training Officers Martin Benavente, James Hamilton and Anthea Fisher on board; and
 - 9.13 Mr Wood was rescued from the crevasse and conveyed back to Davis Station.
10. Despite prolonged resuscitative efforts, Mr Wood was pronounced dead the following day, at approximately 15:00 on 12 January 2016.

The Duty

11. The Defendant had a health and safety duty pursuant to section 19(1) of the WHS Act to ensure, so far as was reasonably practicable, the health and safety of workers including Mr David Wood and Mr Paul Sutton, whilst they were utilising or establishing fuel cache sites on the West Ice Shelf operating out of Davis Station (**Duty**).

Hazard in the workplace

12. There was a hazard in the workplace, namely, the existence of crevasses, in particular, hidden or snow-bridged crevasses, at deep field sites located on the West Ice Shelf, including the Incident Site.

The Risk

13. The health and safety risk to which Mr David Wood and Mr Paul Sutton were exposed was a risk of serious injury or death as a result of falling into a crevasse. (**Risk**)

Particulars of the acts or omissions in failing, so far as was reasonably practicable, to eliminate or otherwise minimise the Risk

14. The Defendant failed to comply with the Duty by failing to ensure, so far as was reasonably practicable, the health and safety of workers, in particular Mr David Wood and Mr Paul Sutton, in that it required the said workers to land helicopters and walk on the ice surface at deep field fuel cache sites, including the Incident Site, without first assessing those sites, in

circumstances where landing on or traversing the ice at those sites was not safe because of the possible presence of crevasses, including crevasses which were hidden by snow bridges.

15. The Defendant failed to comply with the Duty by failing to provide and maintain a safe system of work which utilised the reasonably practicable measures as specified below.

16. The Defendant failed to provide and maintain a safe system of work for the establishment and utilisation of deep field fuel cache sites, including the Incident Site in that;

16.1 it failed to ensure that before workers were required to land a helicopter and/or walk on the ice surface at the deep field fuel cache sites, including the Incident Site, the sites had been subject to the following testing and assessment to confirm that, so far as was reasonably practicable, there were no crevasses at each site:

16.1.1 obtaining and analysing publicly available satellite imagery of the site to determine if there was evidence of crevassing and the location of the grounding line (where crevassing is likely to be more prevalent) and, if such analysis indicated that there was likely to be minimal crevassing at that site, proceeding to the next step of:

16.1.2 engaging in an air task risk assessment process in respect of the site for the purposes of identifying risks of crevasses; and thereafter:

- 16.1.3 undertaking low-light helicopter reconnaissance by someone suitably trained to do so, such as a Field Training Officer, to inspect the site and determine if there was evidence of crevasses, including crevasses hidden by snow bridges; and, if such analysis indicated that there was likely to be minimal crevassing at that site, proceeding to the next step of:
- 16.1.4 undertaking helicopter-crevasse probing of the site by someone suitably trained to do so such as Field Training Officers; and
- 16.1.5 marking out the boundaries of the area in which it was deemed safe to land and walk and beyond which would be an exclusion zone; and
- 16.1.6 re-doing the steps at 16.1.1 to 16.1.5 if more than two weeks had expired or if there had been a significant weather event since the last assessment.

~~16.2 it failed to require helicopter pilots not to land at, walk on or conduct any work at a fuel cache site unless:~~

~~16.2.1 there was an emergency which required the pilot to land; or~~

~~16.2.2 the site had been tested and assessed in accordance with the procedure set out at sub paragraphs 16.1.1 to 16.1.6.~~

~~16.3 it failed to require helicopter pilots to wear Personal Protective Equipment (PPE) in the form of appropriately waterproof and appropriately thermally insulated clothing at all times when they~~

~~were outside the helicopter whilst at a deep field fuel cache, which was reasonably practicable.~~

Result of Failure to comply with Duty

17. As a result of the Defendant's failures, workers including Mr Wood and Mr Sutton, were exposed to a risk of death or serious injury.

This information is laid under the *Magistrates Court Act 1930*, section 25.

Signed:

Sworn/Affirmed before me by the informant.

Deputy Registrar:

Date:

Summons to defendant on information

Details of the defendant

Name: **COMMONWEALTH OF AUSTRALIA**
ABN 34 190 894 983
Address: c/- Department of the Environment and Energy
GPO Box 787, Canberra ACT 2601

Direction

To the defendant:

On Thursday,at 9:00 am
you are required to appear before the Court at the Australian Capital Territory
Magistrates Court Building, 4 Knowles Place, Canberra City, in the Australian
Capital Territory to answer to the information stated on pages 1 to 25 and to be
further dealt with according to law.

This summons is issued under the *Magistrates Court Act 1930*, section 38.

Date:

Deputy Registrar:

Form 3 Information and summons

Magistrates Court Act 1930

(see s 25 (Informations) and s 38 (Form of summons))

In the Magistrates Court of the Australian Capital Territory
Criminal jurisdiction

No CC of 2017

Information

Details of informant:

Name: Christopher May

Address: COMCARE, GPO Box 9905, Canberra ACT 2601

Information—description of people and property and of offences

The informant states on oath/solemnly affirms that —

CHARGE 1

4. On or about 8 December 2015, the Helicopter Resources Pty Ltd (ACN 006 485 105) (**Defendant**) being a person conducting a business or undertaking at Davis Station in the Australian Antarctic Territory and its environs, and who had a health and safety duty under sections 19(1) of the *Work Health and Safety Act 2011* (Cth) (**WHS Act**), to ensure, so far as was reasonably

practicable, the health and safety of workers engaged or caused to be engaged by the Defendant, in particular Mr Bryan Patterson, while they were at work in the Defendant's business or undertaking, failed to comply with that duty and exposed workers to the risk of death or serious injury, contrary to section 32 of the WHS Act.

Particulars

1. At all material times, the Defendant, Helicopter Resources Pty Ltd (ACN 006 485 105), was a company operating a helicopter fleet, providing for the contracting of helicopters and pilots, and a person conducting a business or undertaking within the meaning of the WHS Act.
2. At all material times, the Commonwealth of Australia acting through its responsible agency, the Department of the Environment and Energy (ABN 34 190 894 983)(**the Commonwealth**), as part of its business or undertaking:
 - 2.1 operated the Australian Antarctic Division (**AAD**);
 - 2.2 assigned the AAD with the advancement of Australia's strategic, scientific, environmental and economic interests in Antarctica by protecting, administering and researching the region;
3. At all material times, the following were workplaces of the Defendant in the Australian Antarctic Territory:

- 3.1 Davis Station, being one of three major established stations in the Australian Antarctic Territory (**Davis Station**);
 - 3.2 A deep field fuel cache site on the West Ice Shelf which had been established on about 13 December 2012 (**the 2012 Site**) and a site established on 8 December 2015, located at approximately S67.7908°, E81.4649° (**the Incident Site**); and
 - 3.3 Helicopter model AS350B3E “Squirrel” with tail number VH-UUI.
4. On 4 September 2012, the Commonwealth entered into a Service Agreement with the Defendant, which provided for the supply of helicopters and helicopter pilots by the Defendant to the Commonwealth as logistical support for the Australian Antarctic Program in the Australian Antarctic Territory (**HeliRes Service Agreement**).
 5. The HeliRes Service Agreement was in operation at all material times.
 6. At all material times, Mr Bryan Patterson was an employee of the Defendant and had been assigned, pursuant to the HeliRes Service Agreement to Davis Station to work with AAD.
 7. At all material times, the Defendant had various documented procedures for risk assessment and management of air tasks including:
 - 7.1 a Risk Management Plan & Safety Management Plan;
 - 7.2 a WH&S Plan that adopted the Antarctic Field Manual which, at all material times, was the AAD Field Manual 2015, 16th Edition, September 2015 (**AAD 2015 Field Manual**);

- 7.3 a document entitled “Helicopter Ground Support Manual” which contained, *inter alia*, guidance on risk assessment and air tasking at the pre-flight stage;
 - 7.4 a Safety Manual which included, *inter alia*, a “Safety Risk Matrix” which included Hazard Identification requirements; and
 - 7.5 its own Air Task Assessment protocol and Daily Flight Log – Air Task Risk Assessment form.
8. At all material times, the Defendant’s Pilots Operations Safety Manual provided, *inter alia*:
- 8.1 that part of a senior pilot’s responsibilities was providing assistance with aircraft tasking risk assessment and safe conduct of flying operations;
 - 8.2 the carrying and wearing of appropriate clothing, PPE and survival kit by pilots;
 - 8.3 that pilots were to read the AAD Standard Operating Procedure Operations Manual “Aviation extracts”;
 - 8.4 a procedure for dealing with crevassed areas, in particular on the Amery Ice Shelf, which included low sun-angle reconnaissance, and probing by a Field Training Officer (**FTO**).
9. At all material times, the Defendant:

- 9.1 had a system of communication for pilots between Davis Station and deep field fuel cache sites, being iridium satellite phone; and
 - 9.2 pursuant to the HeliRes Service Agreement, required workers to wear clothing issued by the Commonwealth at Davis Station and at deep field fuel cache sites.
10. At all material times, the West Ice Shelf was glaciated terrain and had crevasses present at various locations.
11. On 8 December 2015:
 - 11.1 Ms Sharon Labudda, an employee of the Commonwealth working in the AAD at Davis Station as Operations Co-ordinator, directed Mr Patterson to transport, by helicopter, drums of aviator turbine kerosene (**ATK**) from Davis Station to the 2012 Site and to leave the fuel drums at that location as a fuel cache site;
 - 11.2 Mr Patterson flew the helicopter model AS350B3E “Squirrel” with tail number VH-UUI from Davis Station to the 2012 Site but did not land at that location;
 - 11.3 Mr Patterson communicated by satellite phone with Davis Station and advised that he had decided not to land at the 2012 Site as there were too many crevasses, he did not like the look of the area and that he could not see the other fuel drums that had previously been deposited there. Mr Patterson advised Davis Station that he would fly on in search of the previously deposited fuel drums;

- 11.4 Mr Patterson then flew approximately 17nm in an easterly direction and decided to land at the Incident Site;
- 11.5 Mr Patterson deposited the drums on to the ice and landed the helicopter at the Incident Site;
- 11.6 Mr Patterson got out of the helicopter, walked across the ice to collect the longlines and drum hooks. He took at least two (2) photographs; and
- 11.7 Mr Patterson walked back to the helicopter, departed the Incident Site and returned to Davis Station.

The Duty

12. The Defendant had a health and safety duty pursuant to section 19(1) of the WHS Act to ensure, so far as was reasonably practicable, the health and safety of workers including Mr Bryan Patterson, whilst they were utilising or establishing fuel cache sites on the West Ice Shelf operating out of Davis Station (**Duty**).

Hazard in the workplace

13. There was a hazard in the workplace, namely, the existence of crevasses, in particular, hidden or snow-bridged crevasses, at deep field sites located on the West Ice Shelf, including the 2012 Site and the Incident Site.

The Risk

14. The health and safety risk to which Bryan Patterson was exposed was a risk of serious injury or death as a result of falling into a crevasse. (**Risk**)

Particulars of the acts or omissions in failing, so far as was reasonably practicable, to eliminate or otherwise minimise the Risk

15. The Defendant failed to comply with the Duty in that it failed to ensure, so far as was reasonably practicable, the health and safety of workers, in particular Bryan Patterson, in that it permitted the said workers to land helicopters and walk on the ice surface at deep field fuel cache sites at the 2012 Site and the Incident Site without those sites having been assessed, in circumstances where landing on or traversing the ice at those sites was not safe because of the likely presence of crevasses, including crevasses which were hidden by snow bridges.
16. The Defendant failed to ensure, so far as was reasonably practicable, a work environment that was without risks to health and safety in that it failed to ensure that before workers were permitted to land a helicopter and walk on the ice surface at the deep field fuel cache site at the 2012 Site and the Incident Site, the sites had been subject to the following testing and assessment by the Commonwealth to confirm that, as far as was reasonably possible, there were no crevasses at each site:
 - 16.1 obtaining and analysing publicly available satellite imagery of the site to determine if there was evidence of crevassing and the location of the grounding line (where crevassing is likely to be more prevalent) and, if such analysis indicated that there was likely to be minimal crevassing at that site, proceeding to the next step of:
 - 16.2 engaging in an air task risk assessment process in respect of the site for the purposes of identifying risks of crevasses; and thereafter:

- 16.3 undertaking low-light helicopter reconnaissance by someone suitably trained to do so, such as a Field Training Officers (**FTOs**), to inspect the site and determine if there was evidence of crevasses, including crevasses hidden by snow bridges; and, if such analysis indicated that there was likely to be minimal crevassing at that site, proceeding to the next step of:
- 16.4 undertaking helicopter-crevasse probing of the site by someone suitably trained to do so, such as FTOs; and
- 16.5 marking out the boundaries of the area in which it was deemed safe to land and walk and beyond which would be an exclusion zone; and
- 16.6 re-doing the steps at 16.1 to 16.5 if more than two weeks had expired or if there had been a significant weather event since the last assessment.

~~17. The Defendant failed to ensure that before workers to whom the Defendant owed a duty were tasked with work that permitted the said workers to land helicopters and walk on the ice surface at the deep field fuel cache sites at the 2012 Site and the Incident Site, that a safe system of work had been created and would be applied to those workers before tasks were allocated to them by:~~

- ~~17.1 contractually binding the Commonwealth to conduct an assessment of fuel cache sites as set out in sub paragraphs 16.1 to 16.6 above; and~~

~~17.2 contractually binding the Commonwealth to provide written certification that the said assessment had been done to each pilot prior to the pilot departing Davis Station on a tasking; and~~

~~17.3 directing their workers not to land at fuel cache sites unless they had been provided with that written certification;~~

~~which was reasonably practicable.~~

Result of failure to comply with Duty

18. As a result of the Defendant's failures, workers including Mr Patterson, were exposed to a risk of death or serious injury.

CHARGE 2

5. On or about 28 December 2015, the Helicopter Resources Pty Ltd (ACN 006 485 105) (Defendant) being a person conducting a business or undertaking at Davis Station in the Australian Antarctic Territory and its environs, and who had a health and safety duty under sections 19(1) of the *Work Health and Safety Act 2011* (Cth) (WHS Act), to ensure, so far as was reasonably practicable, the health and safety of workers engaged or caused to be engaged by the Defendant, in particular Mr David Wood and Mr Paul Sutton, while they were at work in the Defendant's business or undertaking, failed to comply with that duty and exposed workers to the risk of death or serious injury, contrary to section 32 of the WHS Act.

Particulars

1. At all material times, the Defendant, Helicopter Resources Pty Ltd (ACN 006 485 105), was a company operating a helicopter fleet, providing for the contracting of helicopters and pilots, and a person conducting a business or undertaking within the meaning of the WHS Act.
2. At all material times, the Commonwealth of Australia acting through its responsible agency, the Department of the Environment and Energy (ABN 34 190 894 983)(**the Commonwealth**), as part of its business or undertaking:
 - 2.1 operated the Australian Antarctic Division (**AAD**);
 - 2.2 assigned the AAD with the advancement of Australia's strategic, scientific, environmental and economic interests in Antarctica by protecting, administering and researching the region;
3. At all material times, the following were workplaces of the Defendant in the Australian Antarctic Territory:
 - 3.1 Davis Station, being one of three major established stations in the Australian Antarctic Territory (**Davis Station**);
 - 3.2 A deep field fuel cache site on the West Ice Shelf, located at approximately S67.7908°, E81.4649° (**the Incident Site**); and
 - 3.3 Two (2) helicopters, model AS350B3E "Squirrel" with tail numbers VH-UUG and VH-UUI.

4. On 4 September 2012, the Commonwealth entered into a Service Agreement with the Defendant, which provided for the supply of helicopters and helicopter pilots by the Defendant to the Commonwealth as logistical support for the Australian Antarctic Program in the Australian Antarctic Territory (**HeliRes Service Agreement**).
5. The HeliRes Service Agreement was in operation at all material times.
6. At all material times, Mr David Wood and Mr Paul Sutton were employees of the Defendant and had been assigned, pursuant to the HeliRes Service Agreement to Davis Station to work with AAD.
7. At all material times, the Defendant had various documented procedures for risk assessment and management of air tasks including:
 - 7.1 a Risk Management Plan & Safety Management Plan;
 - 7.2 a WH&S Plan that adopted the Antarctic Field Manual which, at all material times, was the AAD Field Manual 2015, 16th Edition, September 2015 (**AAD 2015 Field Manual**);
 - 7.3 a document entitled “Helicopter Ground Support Manual” which contained, inter alia, guidance on risk assessment and air tasking at the pre-flight stage;
 - 7.4 a Safety Manual which included, inter alia, a “Safety Risk Matrix” which included Hazard Identification requirements; and
 - 7.5 its own Air Task Assessment protocol and Daily Flight Log – Air Task Risk Assessment form.

8. At all material times, the Defendant's Pilots Operations Safety Manual provided, *inter alia*:
 - 8.1 that part of a senior pilot's responsibilities was providing assistance with aircraft tasking risk assessment and safe conduct of flying operations;
 - 8.2 the carrying and wearing of appropriate clothing, PPE and survival kit by pilots;
 - 8.3 that pilots were to read the AAD Standard Operating Procedure Operations Manual "Aviation extracts";
 - 8.4 a procedure for dealing with crevassed areas, in particular on the Amery Ice Shelf, which included low sun-angle reconnaissance, and probing by a Field Training Officer (**FTO**).
9. At all material times, the Defendant:
 - 9.1 had a system of communication for pilots between Davis Station and deep field fuel cache sites, being iridium satellite phone; and
 - 9.2 pursuant to the HeliRes Service Agreement, required workers to wear clothing issued by the Commonwealth at Davis Station and at deep field fuel cache sites.
10. At all material times, the West Ice Shelf was glaciated terrain and had crevasses present at various locations.
11. On 28 December 2015:

- 11.1 Ms Sharon Labudda, an employee of the Commonwealth working in the AAD at Davis Station as Operations Co-ordinator, directed Mr Wood and Mr Sutton to transport, by helicopter, eight (8) drums of aviator turbine kerosene (**ATK**) by flying out from Davis Station to two deep field locations being:
- 11.1.1 the Incident Site, at which the helicopters would refuel en route to the Nunatak 1 site (**Nunatak 1**); and then to
- 11.1.2 Nunatak 1 at which the eight drums of ATK would be deposited as a fuel cache;
- 11.2 Mr Wood and Mr Sutton departed Davis Station at approximately 09:16 hrs and flew to the Incident Site. Mr Wood flew the helicopter model AS350B3E “Squirrel” with tail number VH-UUG carrying 4 x 200 litre drums of ATK by sling load beneath the helicopter and Mr Sutton flew the helicopter model AS350B3E “Squirrel” with tail number VH-UUI carrying 4 x 200 litre drums of ATK by sling load beneath the helicopter;
- 11.3 upon arrival at the Incident Site at approximately 10:14, Mr Sutton observed blue ice and crevassing prior to landing;
- 11.4 Mr Wood and Mr Sutton slung their ATK drums onto the ice, landed their helicopters and then got out;
- 11.5 Mr Wood and Mr Sutton proceeded to refuel their helicopters by walking across the ice and retrieving fuel from the drums that had been deposited there on a previous occasion;

- 11.6 Mr Wood and Mr Sutton rolled an ATK drum towards Mr Wood's helicopter, and while doing so, they rolled it and walked over a snow-bridged crevasse of about 0.5 metres in width;
- 11.7 after rolling the ATK drum over the crevasse, Mr Wood took photographs of the crevasse whilst kneeling at the side of it and leaning over;
- 11.8 Mr Wood and Mr Sutton walked back to their helicopters after the refuelling had been completed and departed the Incident Site at approximately 11:18 hrs;
- 11.9 Mr Wood and Mr Sutton flew to Nunatak 1 and prior to landing at Nunatak 1, Mr Wood and Mr Sutton observed the site to be a rocky outcrop, and Mr Wood selected a site nearby to land;
- 11.10 upon slinging their ATK drums and landing their helicopters at Nunatak 1, Mr Wood and Mr Sutton got out of their helicopters, walked across the ice and retrieved the longlines and drum hooks and also took photographs;
- 11.11 Mr Wood and Mr Sutton departed Nunatak 1 at 12:49 hrs and flew to Davis Station arriving at 14:09 hrs;
- 11.12 Mr Wood and Mr Sutton were not wearing waterproof and appropriately thermally insulated pants, parkas and gloves whilst on the ice at the Incident Site and Nunatak 1.

The Duty

12. The Defendant had a health and safety duty pursuant to section 19(1) of the WHS Act to ensure, so far as was reasonably practicable, the health and safety of workers including Mr David Wood and Mr Paul Sutton, whilst they were utilising or establishing fuel cache sites on the West Ice Shelf operating out of Davis Station (**Duty**).

Hazard in the workplace

13. There was a hazard in the workplace, namely, the existence of crevasses, in particular, hidden or snow-bridged crevasses, at deep field sites located on the West Ice Shelf, including the Incident Site.

The Risk

14. The health and safety risk to which ~~Bryan Patterson~~ Mr David Wood and Paul Sutton were ~~was~~ exposed was a risk of serious injury or death as a result of falling into a crevasse. (**Risk**)

Particulars of the acts or omissions in failing, so far as was reasonably practicable, to eliminate or otherwise minimise the Risk

15. The Defendant failed to comply with the Duty in that it failed to ensure, so far as was reasonably practicable, the health and safety of workers, in particular ~~Bryan Patterson~~ Mr David Wood and Paul Sutton, in that it permitted the said workers to land helicopters and walk on the ice surface at deep field fuel cache sites, including the Incident Site without those sites having been assessed, in circumstances where landing on or traversing the

ice at those sites was not safe because of the likely presence of crevasses, including crevasses which were hidden by snow bridges.

16. The Defendant failed to ensure, so far as was reasonably practicable, a work environment that was without risks to health and safety in that it failed to ensure that before workers were permitted to land a helicopter and walk on the ice surface at deep field fuel cache sites, including the Incident Site, the sites had been subject to the following testing and assessment by the Commonwealth to confirm that, as far as was reasonably possible, there were no crevasses at each site:
 - 16.1 obtaining and analysing publicly available satellite imagery of the site to determine if there was evidence of crevassing and the location of the grounding line (where crevassing is likely to be more prevalent) and, if such analysis indicated that there was likely to be minimal crevassing at that site, proceeding to the next step of:
 - 16.2 engaging in an air task risk assessment process in respect of the site for the purposes of identifying risks of crevasses; and thereafter:
 - 16.3 undertaking low-light helicopter reconnaissance by someone suitably trained to do so, such as a Field Training Officers (**FTOs**), to inspect the site and determine if there was evidence of crevasses, including crevasses hidden by snow bridges; and, if such analysis indicated that there was likely to be minimal crevassing at that site, proceeding to the next step of:

- 16.4 undertaking helicopter-crevasse probing of the site by someone suitably trained to do so, such as FTOs; and
- 16.5 marking out the boundaries of the area in which it was deemed safe to land and walk and beyond which would be an exclusion zone; and
- 16.6 re-doing the steps at 16.1 to 16.5 if more than two weeks had expired or if there had been a significant weather event since the last assessment.

~~17. The Defendant failed to ensure that before workers to whom the Defendant owed a duty were tasked with work that permitted the said workers to land helicopters and walk on the ice surface at deep field fuel cache sites, including the Incident Site, that a safe system of work had been created and would be applied to those workers before tasks were allocated to them by:~~

~~17.1 contractually binding the Commonwealth to conduct an assessment of fuel cache sites as set out in sub-paragraphs 16.1 to 16.6 above; and~~

~~17.2 contractually binding the Commonwealth to provide written certification that the said assessment had been done to each pilot prior to the pilot departing Davis Station on a tasking; and~~

~~17.3 directing their workers not to land at fuel cache sites unless they had been provided with that written certification;~~

~~which was reasonably practicable.~~

Result of failure to comply with Duty

18. As a result of the Defendant's failures, workers including Mr David Wood and Mr Paul Sutton, were exposed to a risk of death or serious injury.

CHARGE 3

6. On or about 11 January 2016, the Helicopter Resources Pty Ltd (ACN 006 485 105) (Defendant) being a person conducting a business or undertaking at Davis Station in the Australian Antarctic Territory and its environs, and who had a health and safety duty under sections 19(1) of the *Work Health and Safety Act 2011* (Cth) (WHS Act), to ensure, so far as was reasonably practicable, the health and safety of workers engaged or caused to be engaged by the Defendant, in particular Mr David Wood and Mr Paul Sutton, while they were at work in the Defendant's business or undertaking, failed to comply with that duty and exposed workers to the risk of death or serious injury, contrary to section 32 of the WHS Act.

Particulars

1. At all material times, the Defendant, Helicopter Resources Pty Ltd (ACN 006 485 105), was a company operating a helicopter fleet, providing for the contracting of helicopters and pilots, and a person conducting a business or undertaking within the meaning of the WHS Act.
2. At all material times, the Commonwealth of Australia acting through its responsible agency, the Department of the Environment and Energy (ABN 34 190 894 983) (**the Commonwealth**), as part of its business or undertaking:

- 2.1 operated the Australian Antarctic Division (**AAD**);
 - 2.2 assigned the AAD with the advancement of Australia's strategic, scientific, environmental and economic interests in Antarctica by protecting, administering and researching the region;
3. At all material times, the following were workplaces of the Defendant in the Australian Antarctic Territory:
 - 3.1 Davis Station, being one of three major established stations in the Australian Antarctic Territory (**Davis Station**);
 - 3.2 A deep field fuel cache site on the West Ice Shelf, located at approximately S67.7908°, E81.4649° (**the Incident Site**); and
 - 3.3 Two (2) helicopters, model AS350B3E "Squirrel" with tail numbers VH-UUG and VH-UUI.
4. On 4 September 2012, the Commonwealth entered into a Service Agreement with the Defendant, which provided for the supply of helicopters and helicopter pilots by the Defendant to the Commonwealth as logistical support for the Australian Antarctic Program in the Australian Antarctic Territory (**HeliRes Service Agreement**).
5. The HeliRes Service Agreement was in operation at all material times.
6. At all material times, Mr David Wood and Mr Paul Sutton were employees of the Defendant and had been assigned, pursuant to the HeliRes Service Agreement to Davis Station to work with AAD.

7. At all material times, the Defendant had various documented procedures for risk assessment and management of air tasks including:
 - 7.1 a Risk Management Plan & Safety Management Plan;
 - 7.2 a WH&S Plan that adopted the Antarctic Field Manual which, at all material times, was the AAD Field Manual 2015, 16th Edition, September 2015 (**AAD 2015 Field Manual**);
 - 7.3 a document entitled “Helicopter Ground Support Manual” which contained, *inter alia*, guidance on risk assessment and air tasking at the pre-flight stage;
 - 7.4 a Safety Manual which included, *inter alia*, a “Safety Risk Matrix” which included Hazard Identification requirements; and
 - 7.5 its own Air Task Assessment protocol and Daily Flight Log – Air Task Risk Assessment form.

8. At all material times, the Defendant’s Pilots Operations Safety Manual provided, *inter alia*:
 - 8.1 that part of a senior pilot’s responsibilities was providing assistance with aircraft tasking risk assessment and safe conduct of flying operations;
 - 8.2 the carrying and wearing of appropriate clothing, PPE and survival kit by pilots;

- 8.3 that pilots were to read the AAD Standard Operating Procedure Operations Manual “Aviation extracts”;
 - 8.4 a procedure for dealing with crevassed areas, in particular on the Amery Ice Shelf, which included low sun-angle reconnaissance, and probing by a Field Training Officer (**FTO**).
9. At all material times, the Defendant:
 - 9.1 had a system of communication for pilots between Davis Station and deep field fuel cache sites, being iridium satellite phone; and
 - 9.2 pursuant to the HeliRes Service Agreement, required workers to wear clothing issued by the Commonwealth at Davis Station and at deep field fuel cache sites.
 10. At all material times, the West Ice Shelf was glaciated terrain and had crevasses present at various locations.
 11. On 11 January 2016:
 - 11.1 Ms Sharon Labudda, an employee of the Defendant working in the AAD at Davis Station as Operations Co-ordinator, directed Mr David Wood and Mr Paul Sutton to fly from Davis Station to the Incident Site in order to deposit eight (8) drums of aviation turbine kerosene there;
 - 11.2 Mr Wood and Mr Sutton departed Davis Station at approximately 14.24 hrs and flew to the Incident Site. Mr Wood flew the helicopter model AS350B3E “Squirrel” with tail number VH-UUG and Mr

Sutton flew the helicopter model AS350B3E “Squirrel” with tail number VH-UUI;

- 11.3 Upon arrival at the Incident Site at approximately 15.50 hours, Mr Wood and Mr Sutton slung the drums onto the ice and landed their helicopters;
- 11.4 Mr Sutton and Mr Wood got out of the helicopters;
- 11.5 Mr Wood and Mr Sutton were not wearing waterproof and appropriately thermally insulated pants, parkas and gloves at the time they exited their respective helicopters;
- 11.6 Mr Wood and Mr Sutton walked across the ice to stack the drums, and retrieve the long lines and drum hooks;
- 11.7 whilst walking across the ice, Mr Sutton fell into a crevasse down to his knee but got out and continued walking;
- 11.8 at approximately 15:55, Mr Wood stepped onto a snow-bridge covering a crevasse that was directly under his helicopter (tail number VH-UUG) and fell approximately 10 metres into that crevasse;
- 11.9 Mr Sutton walked across the ice and leaned over the crevasse into which Mr Wood had fallen. He yelled out to Mr Wood but could not hear him;
- 11.10 Mr Sutton went aboard helicopter tail number VH-UUG and turned off the engine and returned to the crevasse to speak to Mr Wood;

- 11.11 Mr Sutton walked back over the ice to helicopter tail number VH-UUI, took off from the Incident Site and flew back to Davis Station to seek search and rescue assistance;
- 11.12 After being refitted for search and rescue, Mr Sutton flew helicopter VH-UUI back to the Incident Site with Field Training Officers Martin Benavente, James Hamilton and Anthea Fisher on board; and
- 11.13 Mr Wood was rescued from the crevasse and conveyed back to Davis Station.
12. Despite prolonged resuscitative efforts, Mr Wood was pronounced dead the following day, at approximately 15:00 on 12 January 2016.

The Duty

13. The Defendant had a health and safety duty pursuant to section 19(1) of the WHS Act to ensure, so far as was reasonably practicable, the health and safety of workers including Mr David Wood and Mr Paul Sutton, whilst they were utilising or establishing fuel cache sites on the West Ice Shelf operating out of Davis Station (**Duty**).

Hazard in the workplace

14. There was a hazard in the workplace, namely, the existence of crevasses, in particular, hidden or snow-bridged crevasses, at deep field sites located on the West Ice Shelf, including the Incident Site.

The Risk

15. The health and safety risk to which ~~Bryan Patterson~~ was Mr David Wood and Paul Sutton were exposed was a risk of serious injury or death as a result of falling into a crevasse. **(Risk)**

Particulars of the acts or omissions in failing, so far as was reasonably practicable, to eliminate or otherwise minimise the Risk

16. The Defendant failed to comply with the Duty in that it failed to ensure, so far as was reasonably practicable, the health and safety of workers, in particular ~~Bryan Patterson~~ Mr David Wood and Paul Sutton, in that it permitted the said workers to land helicopters and walk on the ice surface at deep field fuel cache sites, including the Incident Site without those sites having been assessed, in circumstances where landing on or traversing the ice at those sites was not safe because of the likely presence of crevasses, including crevasses which were hidden by snow bridges.
17. The Defendant failed to ensure, so far as was reasonably practicable, a work environment that was without risks to health and safety in that it failed to ensure that before workers were permitted to land a helicopter and walk on the ice surface at deep field fuel cache sites, including the Incident Site, the sites had been subject to the following testing and assessment by the Commonwealth to confirm that, as far as was reasonably possible, there were no crevasses at each site:
- 17.1 obtaining and analysing publicly available satellite imagery of the site to determine if there was evidence of crevassing and the location of the grounding line (where crevassing is likely to be more

prevalent) and, if such analysis indicated that there was likely to be minimal crevassing at that site, proceeding to the next step of:

- 17.2 engaging in an air task risk assessment process in respect of the site for the purposes of identifying risks of crevasses; and thereafter:
- 17.3 undertaking low-light helicopter reconnaissance by someone suitably trained to do so, such as a Field Training Officers (**FTOs**), to inspect the site and determine if there was evidence of crevasses, including crevasses hidden by snow bridges; and, if such analysis indicated that there was likely to be minimal crevassing at that site, proceeding to the next step of:
- 17.4 undertaking helicopter-crevasse probing of the site by someone suitably trained to do so, such as FTOs; and
- 17.5 marking out the boundaries of the area in which it was deemed safe to land and walk and beyond which would be an exclusion zone; and
- 17.6 re-doing the steps at 17.1 to 17.5 if more than two weeks had expired or if there had been a significant weather event since the last assessment.

~~18. The Defendant failed to ensure that before workers to whom the Defendant owed a duty were tasked with work that permitted the said workers to land helicopters and walk on the ice surface at deep field fuel cache sites, including the Incident Site, that a safe system of work had been created and would be applied to those workers before tasks were allocated to them by:~~

~~18.1 contractually binding the Commonwealth to conduct an assessment of fuel cache sites as set out in sub paragraphs 17.1 to 17.6 above; and~~

~~18.2 contractually binding the Commonwealth to provide written certification that the said assessment had been done to each pilot prior to the pilot departing Davis Station on a tasking; and~~

~~18.3 directing their workers not to land at fuel cache sites unless they had been provided with that written certification;~~

~~which was reasonably practicable.~~

Result of failure to comply with Duty

19. As a result of the Defendant's failures, workers including Mr David Wood and Mr Paul Sutton, were exposed to a risk of death or serious injury.

This information is laid under the *Magistrates Court Act 1930*, section 25.

Signed:

Sworn/Affirmed before me by the informant.

Deputy Registrar:

Date:

Summons to defendant on information

Details of the defendant

Name: **HELICOPTER RESOURCES PTY LTD**
 ACN 006 485 105
Address: 110 Stuart Road, Tyabb VIC 3913

Direction

To the defendant:

On Thursday,at 9:00 am
you are required to appear before the Court at the Australian Capital Territory
Magistrates Court Building, 4 Knowles Place, Canberra City, in the Australian
Capital Territory to answer to the information stated on pages 1 to 26 and to be
further dealt with according to law.

This summons is issued under the *Magistrates Court Act 1930*, section 38.

Date:

Deputy Registrar:

Affidavit of service

On, I of
.....
say on oath/solemnly affirm—

On, I served the defendant, **HELICOPTER
RESOURCES PTY LTD (ACN 006 485 105)** with the summons by—

- *(a) giving a copy of the summons to the defendant; or
- *(b) leaving a copy of the summons at the last-known or usual home/business address of the defendant with, a person who appeared to be at least 16 years old and living/employed at the address.

Note Service of a summons must be effected at least 72 hours before the time stated in the summons for the hearing of the information (see *Magistrates Court Act 1930*, s 41 (2) (Service of summons)).

Sworn/Affirmed by:

.....

at in the presence of:

.....

..... of

Justice of the Peace/Barrister/Solicitor/(*other*)