

WITNESS STATEMENT

Criminal Procedure Rules, r27.2; Criminal Justice Act 1967, s.9; Magistrates' Courts Act 1980, s.5b

Statement of: MACDONALD, DOUGLAS

Age if under 18: OVER 18 (if over 18 insert 'over 18')

Occupation: HEAD OF AVIATION OPERATIONS

This statement (consisting of 3 page(s) each signed by me) is true to the best of my knowledge and belief and I make it knowing that, if it is tendered in evidence, I shall be liable to prosecution if I have wilfully stated in it anything which I know to be false, or do not believe to be true.

Signature: D MACDONALD

Date: 12/03/2018

Tick if witness evidence is visually recorded (*supply witness details on rear*)

This statement outlines the tasking process which the Maritime Coastguard Agency (MCA) would go through if helicopter search and rescue (SAR) assistance was requested by a category one responder (the emergency services, local authorities, NHS bodies). It also considers what assistance, if any, could have been provided in context of Grenfell Tower.

I have worked for the MCA since 2008 and currently work as Head of Aviation Operations. I have worked in this role since 2012 and was previously the Deputy Chief Coastguard. I served in the Royal Navy from 1972 till 2007 and was trained and qualified to authorise and task flying operations (Principle Warfare Officer and Aviation Command Exam). My qualifications and membership of professional bodies are: BSc, MA, MNI, MCGI.

The MCA provides a continuous helicopter SAR service around the UK, operating both at sea and inland. HM Coastguard is the tasking authority for helicopter operations and the MCA manages the contract with the service providers BRISTOW HELICOPTERS LTD (BHL), both fall under my remit. BHL provides modern, highly capable helicopters and experienced crews with most having a military background.

Tasking

Any category one responder can request helicopter support through HM Coastguard. The request would be received by the Aeronautical Rescue Coordination Centre (ARCC) located in the National Maritime Operation Centre at Fareham. The on duty Aeronautical Operations Controller would need to gather

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sufficient information about the request to assess if it is appropriate, achievable and compliant before authorising tasking and passing the request to a Helicopter base. These criteria are amplified below:

- **APPROPRIATE** - Is the tasking an appropriate use of a UK SAR helicopter? There will be a spectrum of incidents ranging from routine to urgent and life threatening. Careful consideration will need to be given to the nature of the incident, any alternative means available and the time imperative. During busy periods or when SAR assets are constrained, some prioritisation of task requests might be required.
- **ACHIEVABLE** - Is the aviation asset capable of carrying out the requested mission? Ultimately the Aircraft Captain, will decide whether his aircraft and crew are capable of carrying out a particular tasking, however the ARCC staff should understand, in broad terms, what a SAR aviation asset can and cannot do as an initial sift i.e. range, medical qualification, aircraft serviceability and crew fatigue.
- **COMPLIANT** - Before speaking to the Captain the ARCC must be satisfied that any mission undertaken can be carried out as a SAR Operational Flight under the SAR approval element of the asset's Air Operator's Certificate (AOC). The criteria to be met are that persons are in distress or potential distress or missing. If these criteria are met, then ARCC tasking will inherently permit the aircraft Captain to fly beyond the standard Commercial Air Transport (CAT) or Passenger Transport (PT) operating minima. Tasking to remove the risk from the casualty or the casualty from the risk can both be compliant. For example deploying a pump to a vessel taking on water removes the risk from the casualty by stopping the vessel from sinking, whereas winching the crew off the same vessel removes the casualty from the risk.

The request and decision are recorded in a log and audio recordings of the telephone conversations are retained for NINETY (90) days. If the above criteria are met and the decision is made to task a SAR helicopter the ARCC will call the helicopter base directly. In this call, they would brief the Captain of the aircraft of the request and details of the tasking. The Captain will then make a more specialised assessment of whether the task is achievable or not. This consideration would involve multiple factors such as weather conditions, the time of day, lighting conditions, crew experience and flight time limitations, necessary to ensure that air crew fatigue does not endanger flight safety. The Captain makes the ultimate decision as to whether the aircraft responds or not.

Once a helicopter is tasked, the ARCC retains responsibility for the overall coordination of the asset, functions such as reassignment, support and airspace management, but would delegate local coordination

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for the task to the appropriate emergency service operational commander. Helicopters have multiple means of communications. The specific means of communication with a local commander are; Airwave [REDACTED] talk group, satellite telephone, mobile telephone or high frequency radio call connected by ARCC to a telephone.

Grenfell Tower

There was no request made to the ARCC on the night of the fire at Grenfell Tower for SAR helicopter assistance. The nearest helicopter base to London is at LYDD, the next nearest is LEE-ON-THE-SOLENT. Between 22:00 and 08:00 helicopter readiness is forty-five minutes — half an hour for the crew to dress and become fully awake, fifteen minutes for flight planning. It would then take around twenty minutes to fly to London, so a response time of approximately seventy-five minutes.

Depending on the circumstances, rescue might have been effected either from the roof or winching a crewmember down parallel to the building to access windows, It is understood that there was no access to the roof from within the tower however, even if there was access the roof, without knowing the obstruction caused by rooftop furniture and the load-bearing capability of the roof, a helicopter landing would not be considered. Therefore, the alternative would be to use the winch that would require the helicopter to be above the roof and within three hundred (300) feet, the length of the winch cable.

DC MORGAN has shown me exhibit RGM/230 - EIGHTEEN (18) images of Grenfell Tower on the night of the fire between 01:41 and 06:06. These images were a mixture of standard camera shots and infrared images showing the tower, its roof, debris and smoke due to the fire. They also gave an indication as to the intensity of the fire.

These conditions would preclude helicopter operations above the tower within winching height because:

- As temperature increases helicopter performance decreases. The stability of the helicopter would be compromised from the fluctuations of heat and smoke. It would be unlikely that the helicopter would be able to hover and the smoke and debris could cause the engine to flame out (stall). The heat could also cause the helicopter to deform. For example, there have been issues where the heat from the engine exhaust on the helicopter has caused deformation of the helicopter immediately around it. The fuel tanks on the AW189 are on the underside of the aircraft and are not insulated, Jet A1 has a Flash Point of 38°C, a Boil Off Point of 176°C, Self Ignition Point of 210°C, the fuel would therefore vent off and be a fire risk in the expected temperatures just above the tower.

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- The crew do not have any personal protective equipment (PPE) that is designed for flying in smoke or fire. While flight suits are fire retardant, they do not protect the wearer from heat. They do not have breathing apparatus and would be susceptible to smoke inhalation and eye irritation. Further the smoke would have obscured visual reference points.
- The downwash from the helicopter would fan the fire and probably cause it to spread further.

I do not believe that any rescue via helicopter at Grenfell Tower would have been viable due to the severity of the fire. The only potential service that may have been possible would be the provision logistical support, the transfer of casualties or the resupply of firefighters, to a landing area adjacent to the tower.

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