

Humberside Coastguard Search and Rescue Helicopters

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Well, that jinxed it! After starting this column last month to give you an insight into the routine of our Coastguard Search and Rescue helicopter base, the callouts seemed to dry up in February...unlike the weather! The total of only 6 'jobs' last month compares with 6 in February 2019 but 24 in February 2018. Whereas we expect a seasonal 'low point' between the New Year and Easter, these figures show that we can't predict what is going to happen. A glance at the callout list below shows that 4 of February's 6 callouts were for searches, all of which took place at night. While none of these resulted in the crews locating a casualty, which is always frustrating, it might be of interest for me to highlight the reasons for this.

Two of the searches (at Happisburgh and Sewerby) resulted in the crews being able to provide a reasonable assurance that the missing person was not present within the search area. A third search, carried out overwater, turned out to be a hoax so there was obviously no casualty to locate. The fourth search, at Bishop Auckland, is worth describing in more detail to explain the equipment and techniques that we use in such circumstances, as well as to highlight some of the difficulties that we face.

Briefly, a teenager had been seen to fall from a bridge into the fast-flowing river below. The banks of the meandering river were largely overhung with trees, and there was loose vegetation both in the river and along the banks. A ground-level search, co-ordinated by a police search advisor (POLSA), was being carried out by the local fire service and volunteer search team members with search dogs.

Although we have excellent night vision equipment, the primary search tool at night is the thermal imaging camera which is housed in the white turret underneath the helicopter's nose and is very similar to those used by police aircraft. Thermal cameras detect the infra-red radiation emitted by a surface and can identify very slight thermal differences, which is why they are so useful for searching for missing people. They detect anything that emits infra-red radiation, such as mice, birds and even compost heaps, so a detailed search of an area is normally quite time-consuming, but can't actually 'see' through windows or water.

The camera is operated by one of the technical crew members from the sensor station in the cabin. Pilots will normally use the autopilot functions to put the helicopter in a very accurate and stable hover so that the camera operator has a steady platform from which to work. One pilot will 'fly' the aircraft, which usually means adjusting the autopilot settings to position the aircraft under the camera operator's directions, while the other pilot (usually the captain) manages the overall search. In this role I display a large-scale electronic map on one of the cockpit screens, showing the aircraft's position and camera search point, and put the thermal camera picture on a second cockpit screen, as well as having the aircraft systems displayed on the remaining screens. In addition to this I have a moving map on an iPad strapped to my leg and remain in radio contact with the ground search co-ordinator.

After a very intensive thermal search of the area close to the bridge, at the POLSA's request the search was extended 3 miles downstream. It was clear that it would be extremely difficult to detect someone who had been immersed in fast-flowing cold water for some time, and impossible to detect anyone beneath the surface, so the slightest thermal contact had to be scrutinised. After a thorough but unsuccessful search of the area requested by the POLSA, the crew was stood down and returned to Humberside.

Tragically, the teenager's body was found in the river by search teams the following morning with only a very small portion of clothing showing on the surface of the water. That area had been covered but the action of the cold water would have removed any thermal signature from the small piece of exposed clothing, effectively making it invisible to a thermal camera. If the teenager had been clear of the water I have no doubt that he would have been found, such was the detailed nature of the search, but unfortunately the circumstances rendered this impossible. You can only do your best.

Date	Times	Tasking
16 February	14:22 – 16:50	50 year-old male with broken ankle close to the base of 200 ft cliffs at Shippersea Bay, 10 miles south of Sunderland. Casualty winched and taken to James Cook hospital, Middlesborough. Assistance provided on scene by Redcar Coastguard Rescue Team.
19 February	17:26 – 20:00	Extensive thermal and visual (night vision equipment) search for missing person at Happisburgh on north-eastern Norfolk coast. Nothing found, so stood down by coastguard.
20 February	00:15 – 01:59	Early-hours search following report of person overboard from ferry 'King Seaways' approximately 70 miles north east of Kirmington. Thermal search carried out until stood down by coastguard once the call had been confirmed as a hoax.
23 February	20:10 – 22:48	Search for 13 year old boy who had reportedly fallen from a bridge into the River Wear at Bishop Auckland. Extensive thermal search of the river and riverbanks up to 3 miles downstream from the bridge. Nothing found, so stood down by police.
26 February	05:25 – 07:00	Search for vulnerable missing person in the vicinity of Sewerby, near Bridlington, in conjunction with Bridlington Coastguard Rescue Team. Nothing found, so stood down by coastguard.
29 February	07:38 – 10:32	38 year old male reportedly suffering from diarrhoea and vomiting with dizziness and confusion aboard a gas platform 105 miles north east of Kirmington. The helicopter landed on the helideck, the casualty was loaded aboard and was taken to Hull Royal Infirmary.