

INCIDENT

Aircraft Type and Registration:	Agusta AW139, G-CHBY	
No & Type of Engines:	2 Pratt & Whitney Canada PT6C-67C turboshaft engines	
Year of Manufacture:	2010 (Serial no: 31310)	
Date & Time (UTC):	17 April 2015 at 0853 hrs	
Location:	Amethyst A1D platform, North Sea	
Type of Flight:	Commercial Air Transport (Passenger)	
Persons on Board:	Crew - 2	Passengers - 10
Injuries:	Crew - None	Passengers - None
Nature of Damage:	None	
Commander's Licence:	Airline Transport Pilot's Licence	
Commander's Age:	39 years	
Commander's Flying Experience:	6,981 hours (of which 200 were on type) Last 90 days - 108 hours Last 28 days - 28 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

Synopsis

The helicopter was carrying out a scheduled flight, transporting ten passengers to the Normally Unmanned Installation (NUI) A2D, in the Amethyst Field in the Southern North Sea. The flight crew were carrying out line training and inadvertently landed on the NUI A1D, which was a similar platform located 2 nm ahead of the A2D in the direction of flight.

History of the flight

The flight crew comprised two captains, one of whom was a line training captain and was the Pilot Handling (PH). He was occupying the left seat and was the commander of the aircraft. The pilot in the right seat was new to the type and undergoing line training. He was the Pilot Monitoring (PM). This was his fourth line training flight and he had accumulated a total of 21 flying hours on the aircraft type. Both pilots had been aircraft commanders on the S76C++ and had extensive experience of operating in the Southern North Sea and on the route being flown.

The crew reported for duty at 0445 hrs and carried out a three-stop shuttle flight, before returning to Humberside Airport for a rotors-running refuel. Ten passengers were then boarded for a flight to the Amethyst Normally Unmanned Installation (NUI) A2D platform. The route and platform positions are shown below (Figure 1).

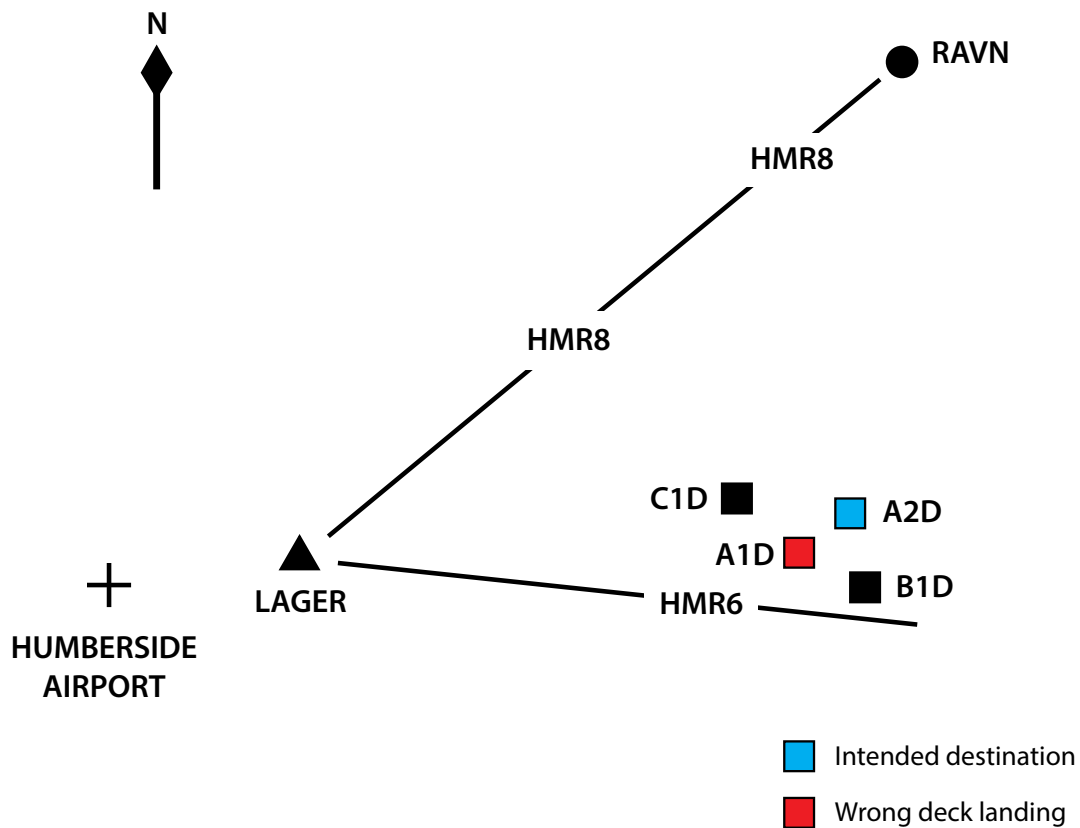


Figure 1

Diagram showing the relative position of the route and the platforms in the Amethyst field.
(Not drawn to scale: HMR = Helicopter Main Route)

A standard departure was flown from Humberside Airport and the helicopter climbed to an altitude of 2,000 ft amsl. It routed to waypoint LAGER, then direct to the Amethyst A2D. The route had been correctly entered into the helicopter's Flight Management System (FMS) and the Auto Flight System was engaged, with the Lateral Navigation (LNAV) mode controlling the helicopter's track.

The crew communicated with Anglia Radar ATC for offshore radar coverage, as standard, and called the Perenco Log operator, who was located on the Revenspur North Platform (RAVN), some 28 nm north of the Amethyst Field, and the point of contact for the Amethyst A2D. The Log operator advised the crew of the latest weather and the details of the standby vessel in the vicinity of the A2D. (Because of the distance of the Revenspur from the Amethyst field, low altitude communication was unreliable and the standby vessel ensured that a proper flight-watch could be maintained.) Having established radio contact with the standby vessel, the crew discontinued with the Anglia Radar radio frequency.

The crew were visual with the Amethyst field as they coasted out over the sea and knew the geographical layout of the platforms. The weather in the Amethyst field was good, with a wind of 035°/10 kt, and they carried out the Approach checks before commencing a descent to a height of 400 ft at the usual position. The Auto Flight System remained engaged and the

Altitude Select mode was used for the descent. The Heading mode was used for directional control, replacing the LNAV mode, and the helicopter's heading was adjusted to the right of the direct track, to allow for a turn into wind during the final approach to the platform.

With 2 to 3 nm to go to the platform, level at a height of 400 ft, the Finals checks were completed and the helicopter was turned towards the platform, onto an into wind heading of 060°M. As briefed, the landing was to be carried out by the left seat pilot. The crew then identified the platform ahead as the A2D, whereas it was, in fact, the A1D. The two platforms appear almost identical and it was reported that, given the distance, they may have misread the name plate on the side of the platform, which was a large rectangular yellow board with the name 'AMETHYST A1D' in red letters, mistakenly transposing the number 1 on the name plate for a number 2.

Having made this early identification, the crew then concentrated on flying the approach as part of the training element of the flight. The subsequent landing on the helideck, on which the name is also displayed, was uneventful and the helicopter departed for Humberside after the passengers were clear of the deck.

After the helicopter's departure from the platform, the mistake was identified. The flight crew offered to return and transfer the passengers to the correct platform but, as the A1D was not cleared for AW139 operations, this was not possible and the helicopter returned to Humberside Airport.

Navigation

There are four platforms in the Amethyst field and the position of each platform is stored in the helicopter's FMS as 'user waypoints'. Unless added to the 'active route', 'user waypoints' do not appear on the Primary Flight Display (PFD). With the radar operating, the PFD shows raw radar returns (from the platforms) and inputs from the FMS, only showing the locations of the platforms loaded as 'user waypoints' in the 'active route'. With the A2D loaded as the destination 'user waypoint', the A1D appeared as a raw radar return ahead of it. When the radar was selected to 'standby', as part of the Finals checks, the radar return disappeared and only the A2D 'user waypoint' remained. With the descent complete and the helicopter level at a height of 400 ft, the A2D was visually obscured behind the A1D.

The Amethyst A1D and A2D are virtually identical platforms, with the same size helidecks and identical structures. Part of the Helideck Information Plate for the A1D is shown below (Figure 2). Being similarly orientated, they also have an identical profile when approached from any direction. The one recognisable difference, at the time, was a radar tower on the A1D, which imposed a prohibited landing sector on the deck from 178°M to 208°M. This radar tower did not exist on the A2D. Both helidecks had a D-value¹ of 17.46 metres and could accommodate the size of an AW139, which has a D-value of 16.66 metres. However, only the A2D was cleared for the maximum all-up weight (MAUW) of an AW139.

Footnote

¹ 'D-circle' means a circle, usually hypothetical unless the helideck itself is circular, the diameter of which is the 'D-value' of the largest helicopter the helideck is intended to serve.

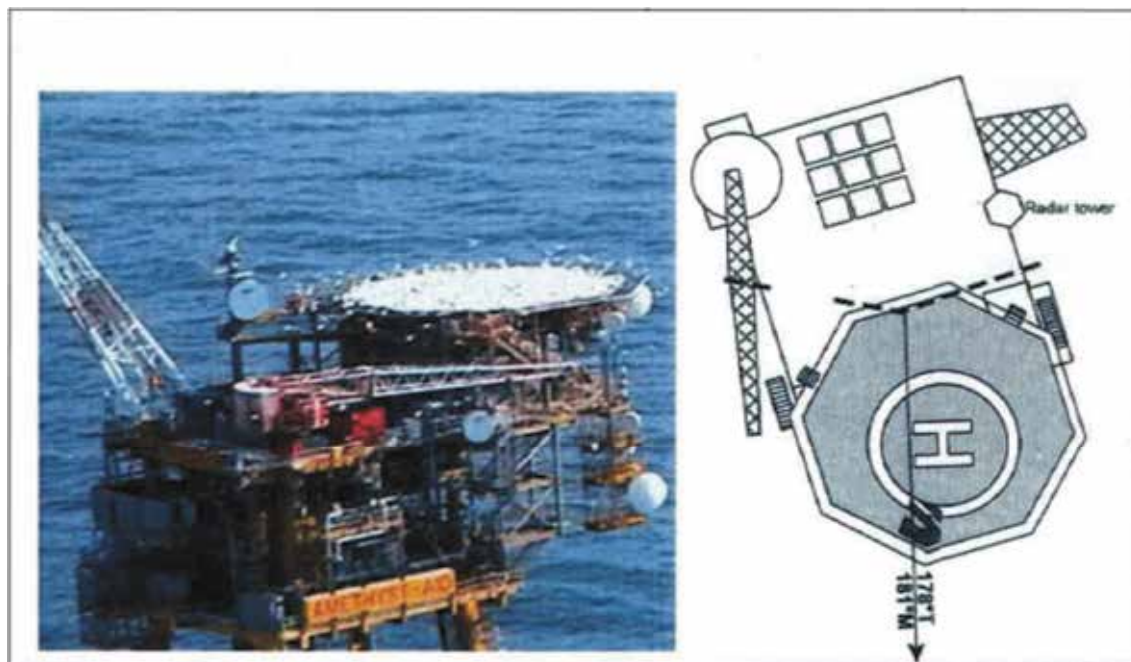


Figure 2

The A1D platform showing the nameplate and helideck layout

Procedures

The expanded Approach and Finals checklists are contained in the operator's Flight Operations Manual, Part B. They provide the detail of what should be checked. During flight, crews use a Normal Operating Procedures (NOP) Single Sheet Checklist, with less detail.

The identification of the destination is item 10, the last item, in the Finals checklist. In the expanded checklist it is set out as follows:

'10 DESTINATION.....IDENTIFY/GPS

- *Identify by visual means and by noting GPS bearing and distance before committing to land. Confirm clearance to land received.'*

The NOP Single Sheet Checklist provides the following only:

'10 DESTINATION.....IDENTIFY/GPS'

Both pilots were familiar with the need to confirm the correct destination was being approached, by reading the name plate attached to the platform or the name displayed on the helideck. However, they had recently carried out simulator training which involved offshore operations where names were not always displayed on the simulated vessels or platforms, and identification was confirmed by it being the only helideck programmed for the training.

Discussion

The crew members were properly licensed and qualified to conduct the flight. They were also familiar with the route being flown and the platforms in the Amethyst field. The good weather meant that the platforms were visible to the crew as they coasted out over the sea. The flight progressed normally with the helicopter descending to a height of 400 ft at the usual position, with all checks and radio calls completed. It is not clear at what point the A1D was mistaken for the A2D. Reading the platform's name plate or the name on the helideck was the normal means of identification. It is possible that reading the platform name from a distance may have led to the crew misreading the '1', in A1D, for a '2'.

When the radar was set to standby, as part of the Finals checks, only a single platform waypoint would have been shown on the PFD, and visible ahead was a single platform. This was the A1D which, from the crew's perspective, was obscuring the A2D platform.

At this point, the crew were focussed on flying the final approach, as part of the line training, having earlier 'confirmed' the platform as their destination. The final opportunity to identify the platform was in the final stages of the approach, when the name was displayed on the helideck. However, the mistake was not noticed.

The crew concluded that the wrong deck landing was the result of early identification of the A1D as the A2D, either through not reading the name plate or misreading it. They also considered that a recent intense period of offshore simulator training, where the name on the simulated platforms and vessels was not read, may have been a contributory factor.