Havarikommisjonen for Sivil Luftfart HSL

REPORT

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REP: 83/2000
Date: 4 December 2000

All times given in this report is local time (UTC + 2 hrs) if not otherwise stated.

Aircraft-type and reg:	Eurocopter AS 332L2, LN-OHD/Westland EH 101, IL-IOI
Radio call sign:	HKS 488/IL-IOI
Date/time of icident:	11 May 2000, time 0916
Location of incident:	Near Kristiansund airport Kvernberget
Type of incident:	Air traffic incident, AIRPROX
Type of flying:	Offshore passenger transport/utility/passenger transport
Weather:	Wind: 290° 11 kts. Vis: more than 10 km. Clouds: few at 1 500 ft, sct at 2 000 ft. Temp: 6 °C. Dewpoint: 2 °C. QNH: 1028 hPa
Lighting conditions:	Daylight
Flight contitions:	VMC
Flight plan:	IFR/VFR
Personal injury:	None
Damage to the aircraft:	None
Other damage:	None
Sources of information:	Reports from the commanders of HKS 488 and IL-IOI, reports from the duty controller and chief controller at Kvernberget control tower.

FACTUAL INFORMATION

HKS 488 was on an offshore passenger flight, returning to Kristiansund airport Kvernberget from the Aasgard oil field in the Norwegian Sea on an IFR flight plan. HKS 488 had been cruising at 3 000 ft on the Oscar track inbound to Kvernberget. From Oscar 30 reporting point at time 0906, HKS 488 had been ”cleared inbound to expect visual approach to land on runway 25”. He was also cleared to descend from 3 000 ft to 1 000 ft on QNH 1028 hPa.

At time 0905 HKS 488 left 3 000 ft and informed the tower that they were setting course direct to the VOR.

At time 0906 IL-IOI, an EH 101 utility helicopter, was checking in on tower frequency, approaching the TMA border to the South-West at 1 000 ft. IL-IOI requested to route via Bremsnes NDB (BRS) located approx. 4,5 NM to the South-West.

The ATC controller checked the Prediction Line (PL) on the radar screen which indicated that IL-IOI would cross well behind HKS 488, and that the two tracks would be crossing 6 NM to the North of the airport. On this basis IL-IOI was cleared to continue inbound at 1 000 ft on QNH 1028 hPa and requested to report passing BRS. IL-IOI did not acknowledge the last instruction from the tower.

IL-IOI was on a VFR flight plan from Vigra to Brønnøysund via BRS, Tarva NDB (TAR at Ørland) and Rørvik at 1 000 ft.

At time 0908 BRA 4234, a Fokker 50, called the tower requesting start up clearance. He was cleared to start for take off runway 25.

At time 0911 IL-IOI was instructed to route via Stavenes VFR reporting point, slightly to the North of centerline of runway 25. This was to route the IL-IOI out of the departure sector of runway 25 and hence clear the airspace for the departing Fokker 50.

At time 0912 HKS 488 was 15 NM to the North at 1 000 ft and was cleared for a visual approach to runway 25.

At the same time IL-IOI reported their position to be 9 NM on radial 248° from KVB VOR.

At time 0913 IL-IOI reported back and informed the tower that they were not familiar with Stavenes reporting point and asked if the tower wanted them to route East of the field. Tower answered that they should just continue inbound and cross North of the field. IL-IOI informed that they had the departing Fokker 50 in sight.

At time 0914 BRA 4234 informed the tower that they had the incoming traffic (IL-IOI) in sight ”at one o’clock below”, which ment that the IL-IOI now had crossed the runway 25 extended centerline (BRS) without reporting as requested.

Neither IL-IOI or HKS 488 were informed about each other or other local traffic.

HKS 488 understood from the radio communication that another aircraft (since IL-IOI callsign was unfamiliar to them they thought it belonged to a fixed wing aircraft) was to pass BRS and to fly to the North of the airport. IL-IOI and BRA 4234 understood from the radio communication that they were conflicting traffic and looked for each other.

Both aircraft spotted the other and avoided any conflict. However, it appeared that IL-IOI did not hear that another helicopter (HKS 488) was approaching from the North-West at 1 000 ft.

At time 0916 HKS 488 called the tower and informed that they were making a right hand turn to avoid a conflicting helicopter.

HKS 488 had spottet IL-IOI at about 2 NM distance, approx. on downwind of runway 25, heading towards HKS 488 which was on base to runway 25, on a conflicting track at the same altitude. HKS 488 turned to the West to get behind IL-IOI which crossed in front of HKS 488 without observing the Super Puma.

THE AAIB/N COMMENTS

The AAIB of Norway conciders that the risk of collision was real. The incident illustrates that rules and procedures alone are no garanties for ensuring flight safety. In addition both pilots and controllers are rquired to show good knowledge, planning and ”airmanship”.

Kristiansund airport Kvernberget is a controlled airport with radar service. The control zone (CTR D airspace) is vertically extending from surface to 2 500 ft. The approximate horizontal extension is from 17 NM to the South-West, 8 NM to the North and 10 NM to the North-East. However, the visual coverage at 1 000 ft. is restricted in a sector from 290° to 360° due to Kvernbergtoppen (a hill) North of the airport. The radar coverage at 1 000 ft is limited in the area along the coast.

In controlled airspace Class D IFR traffic is separated from other IFR traffic but not from VFR traffic, which follows the rule of ”see and be seen”. Hence, vigilance and look-out is required from all parties involved in operation and controlling of aircraft in a control zone.

In this case the weather was good with more than 10 km visibility and few clouds below 2 000 ft. Hence it was good VFR conditions and possibilities for sighting other traffic. However, it is imperativ that the crews get information about other traffic in the area in order to direct their attention in the right direction.

It appears that the controller put too much emphasis on the radar while controlling both IFR and VFR traffic. Even though the radar PL predicted no track-conflict between IL-IOI and HKS 488, this could not be guarantied since IL-IOI was navigating VFR and could legally deviate from the initial course. IL-IOIs last instructions from the tower was to ”continue inbound and cross North of the field”.

The instructions to IL-IOI did not include any specific heading or minimum distance from the airport. The last position report from IL-IOI was 9 NM on radial 248°. This was very close to the centerline of runway 25 and the helicopter was heading ”inbound to the field to cross to the North”. IL-IOI had previously been requested to report passing BRS. They did not comply with that instruction but they passed North of the BRS about the same time as BRA 4234, and both aircraft reported sighting the other.

The report from BRA 4234 just after takeoff ”we have inbound in sight at one o’clock below” indicated that IL-IOI was about to pass abeem BRS. To the ATC controller this was in reality a "position check" on the IL-IOI and it should have caused him to shift the focus

from a possible conflict with BRA 4234 to a possible conflict with HS 488, which was heading for right base runway 25 at the same altitude of 1 000 ft.

IL-IOI was flying VFR in Class D airspace. It is ”good airmanship” to review the air space structure and VFR reporting points when planning to cross trough such an airspace. In this case the failure of IL-IOI to review a VFR map for Kvernberget increased the work load on the ATC controller. A local map (ex. Jeppesen Bottlang Airfield Manual) would also have helped IL-IOI to navigate more presisely in relation to the airport. According to the rules of the air, passing aircraft are required to stay clear of the traffic pattern. In this case IL-IOI crossed close to the downwind leg of the traffic pattern without proper clearance and without asking the tower about other local traffic. Hence the crew of IL-IOI did not spot HKS 488 which approached from IL-IOIs left side at about right angle.

In AAIB/Ns view the controller relied too much on the radar in controlling VFR traffic. It is also imperative to inform all local traffic, IFR as well as VFR, about other traffic in the area. When controlling VFR traffic it is important to keep in mind that VFR traffic is not required to ”maintain heading”. VFR traffic is responsible for their own separation based on "see and avoid", and therefore they must be informed about other traffic in the area. Both HKS 488 and BRA 4234 understood from the radio communication that there could be possible conflicting traffic. IL-IOI was informed about BRA 4234 before the last mentioned aircraft took off from Kvernberget, but IL-IOI did not receive information about HKS 488. In fact IL-IOI never heared or saw HKS 488 even though the two helicopters passed each other at 2 NM at the same altitude.

In Norway there have been noumerous incidents of conflicting VFR and IFR traffic in airspace Class D, E and G. The rules covering these categories of airspace are generally "to see and avoid" and there are no specified minimum distance a VFR flight may pass an IFR flight. However, in Class D airspace a more active role in providing traffic information to the flights concerned is expected from the ATC controller.

With increasing air traffic there will be increased workload on pilots and controllers and make them more vulnerable to the effects of human performance and limitations as this incident is a clear example of.