

| | |
|--|------------------------------|
| Safety Recommendation Number: | IRLD2021039 |
| AAIU Event Reference: | IRL00917016 |
| AAIU Report Number: | 2021-008 |
| Date of Publication of Safety Recommendation: | 5 November 2021 |
| Safety Recommendation Status: | In process of implementation |

Safety Recommendation:

CHCI should engage with all relevant parties to conduct an in-depth study and review of the cockpit environment of its S-92A helicopter to ensure that safe operations can be achieved under all ambient lighting conditions and that all aspects of information presentation (colour schemes, typography, size, font, surface reflectivity, etc.) used in the presentation of Route Guides, Landing Site Directories and other information provided for use by flight crew, are optimised for use in the cockpit environment.

Response:

On 01 February 2022, and in subsequent engagement with the AAIU, the Operator provided the following response to this Safety Recommendation:

"The introduction of the revised Route Guide in 2019 included proving flights to ensure all aspects of information presentation was optimised for use in the cockpit environment.

The introduction of the Electronic Flight Bag (EFB) Approval in 2018 provides crews with operational information digitally and was trialled in advance. The EFB facilitates the clear presentation of information for use by day and night modes allowing use in all ambient light conditions.

The operator will conduct a technical assessment of the cockpit environment of its S-92A helicopter to ensure that safe operations can be achieved by day and by night and that all aspects of information presentation (colour schemes, typography, size, font, surface reflectivity, etc.) used in the presentation of Route Guides, Landing Site Directories and other information provided for use by flight crew, are optimised for use in the cockpit environment. This will be completed by the operators senior test pilot who has a Cat 1 flight test rating. We will provide updates to AAIU on completion of the technical assessment (Planned for Q3 2022)."

On 12 January 2023, the Operator provided the following update to the AAIU:

"Cockpit environment assessment flight completed on CHCI AWSAR S92A by [named individual] EASA Category 1 Test Pilot on the 17th Aug 2022. Final report received 20th October 2022. Please see attached.

Upon review of report CHCI removed paper copies of the FMS route guide and landing site directory in consultation with the IAA.

Digital copy of the NCL and ECL are now available on EFB, as approved by the IAA."

On 31 March 2023, the Operator provided the following update to the AAIU:

"CHCI are in the process of arranging an additional night flight assessment to be undertaken on the West coast of Ireland as per AAIU feedback. Expected completion September 2023 due availability of EASA Category 1 Test Pilot for additional night flight assessment."

AAIU Comment:

The AAIU Notes the Operator's response of 01 February 2022.

The AAIU also notes that certain activities are scheduled for Q3, 2022.

The AAIU Notes the Operator's response of 12 January 2023.

The Investigation notes that the Test Pilot's report referred to in the 12 January 2023 response contained a number of findings including that 'when using company provided lip lights in NVG mode, certain colours on documents were no longer visible'. The Operator has proposed an amendment to its OMA which states, inter alia, 'When coloured lights are used to read hard-copy documents, items that are in a complementary colour may appear black, or may not be distinguishable from other colours. E.g. when using green light, red coloured objects may disappear from maps and when using red light, green objects may disappear.'

The Test Pilot's report also detailed a number of recommendations. The AAIU has provided feedback to the Operator on the contents of the report and has requested additional information from the Operator about how and when the report's recommendations have been/will be addressed.

The AAIU Notes the Operator's response of 31 March 2023.

The AAIU awaits further updates from the Operator on this ongoing work.

The AAIU considers the status of this Safety Recommendation to be 'In process of implementation'.