Forth EASA Rotorcraft Symposium

Title of Research: Human Factors aspects during post-maintenance flight test

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Abstract:

The paper explores the importance of human factors in post-maintenance test flights. The author analyzes the organizational factors that influence human performance in those special situations. The study contains an overview about the factors or unsafe acts that can lead to accidents, specially during high risk operations in complex environments.

Hazards can be hidden in different unexpected layers of the organization such as design factors, procedures or operating practices, communications, the personnel selection, work environment and regulatory oversight factors, as well as in control measures.

The author conducted a pilot survey that obtained qualified data from 57 Air Operator Certificate holders.

The evidence presented in the survey suggests that a major part of the problem originates in the lack of consideration of human factors during post-maintenance flight test. The system actually relies on experienced staff or captains, instead of better flight crew composition concepts. It was also identified the lack of a dedicated initial and recurrent training provided to support flight and ground crew authorised to perform flight tests.

The author found that the critical areas of the post-maintenance flight test processes need to be identified in advance. This implies the analysis of the hazards and risk assessment for each action performed by the owner of the process. After finding the critical phases of the flight tests, it is imperative to draw checklists that make double checks possible.

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