

## Cockpit Voice Analysis and Diagnostic

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### Abstract:

The attributes of cockpit voices (sounds) recorded by Cockpit Voice Recorder (CVR) are key confirmations in examining mishap foundations for destroyed plane. To dissecting and diagnosing destroyed plane causes through cockpit voices in CVR, a few specialists are made as followings in this paper: Firstly, some ordinary foundation hints of cockpit voices, for example, wind shear sound, close earth sound admonition, take-off type of sound cautioning, alarm, etc, are gotten and ordered through tuning in and recognizing by adobe tryout sound programming in research facility. At that point, the attributes of these foundation sounds are removed by signal investigations techniques, for example, Fourier Transform (FT), Wavelet Transform (WT, etc. Through these strategies, the extraordinary attributes are depurated, for example, recurrence esteem, phantom thickness, and recurrence line numbers. Thirdly, as the critical piece of the paper, restrictive standards and shortcoming trees standards centers around and applied to recognize what's more, analyze these uncommon attributes for estimated or distinctive foundation hints of cockpit voices. What's more, some accessible outcomes are acquired at last. Through all these above investigates, new dissecting and diagnosing approaches are advanced, which are appropriate for exact getting a handle on the reason for flight mishap and examinations and analyze flight mishap. All the investigates and determinations

have a specific reference for examination and conclusion of flight mishaps, and ensure flight security.

The attributes of cockpit voices (sounds) recorded by Cockpit Voice Recorder (CVR) are key confirmations in exploring mishap foundations for destroyed plane. To investigating and diagnosing destroyed plane through cockpit voices, the specialists are made, and a few ends are gained as followings in this paper: 1) Through tuning in and recognizing by adobe tryout sound programming in research center, some regular foundation hints of cockpit voices are gotten and ordered. These commonplace foundation sounds are wind shear sound, close earth sound admonition, take-off type of sound cautioning, alarm, etc. 2) Through sign investigation techniques, (for example, the Fourier Transform, Fast Fourier Transform, Short Time Fourier Transform, Linear FM Transform, Wavelet Transform), qualities of average foundation sounds are extricated. The extraordinary qualities are recurrence esteem, ghostly thickness, recurrence line numbers, etc. 3) Through restrictive standards and shortcoming trees techniques, these cockpit voices with estimated or diverse average foundation sounds' qualities can be extraordinary and chosen. All investigates and their decisions in the paper are advanced new methodologies for precise getting a handle on the reason for flight mishap, dissecting and diagnosing flight mishap, ensuring flight security.