



SPEECH VARIABILITY IN HIGH PERFORMANCE ROTARY WING AIRCRAFT

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ABSTRACT

Next generation high performance rotary wing aircraft are likely to employ Direct Voice Input (DVI) as a means of cockpit equipment control. If DVI systems are to provide benefits which justify the overheads of added weight size and cost, they must be capable of robust recognition performance throughout the aircraft's full flight envelope.

As avionic equipment selection often takes place some years ahead of prototype aircraft roll-out, it is essential that speech data-bases are available which contain characteristics thought to be typical of speech spoken within these vibrant, high noise platforms. To this end Smiths Industries has made some initial speech recordings from speakers within a high performance helicopter. Details of these recordings, together with their initial analysis, are presented within this paper.

The final section of the paper describes the methodology and instrumentation used for recording a larger corpus of speech data under controlled vertical vibration conditions.

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