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## **ABSTRACT**

Title: STANDARDIZATION PROJECT FOR SPEECH DISCRIMINATION TESTING

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## Introduction:

Speech discrimination in cockpit noise field is very important for aviation safety. If the hearing level of class 1 pilots is under required limits, he has to pass a speech discrimination test in noise. However none clinic test are standardized. If satisfactory hearing in a noise field corresponding to normal flight deck conditions during all phases of flight can be demonstrated, a fit assessment may be considered at revalidation or renewal. We have improved this type of testing to be easily used by AeMC.

#### Methods:

Noise fields of different cockpits (airliners, aircrafts, helicopters) have been recorded, stamped and measured during fligth. We have do the same with recording ATC messages ( >350 ATC messages in English with different accents) Pilot, staying in a noise correspondind at his usefull aircraft can use of different headsets with or without ANR and must repeat ATC messages as described in the EASA requirements.

#### Results:

150 class 1 pilots have been tested with this procedure (89 with normal hearing, 35 with moderate hearing loss and 26 with a under standards hearing level requiring discrimination test) For all, this test is conform to real fligth conditions and accepted by pilots.

**Conclusion:** This programm-testing is in accordance to JAR's and EASA requirements and flight safety. He is available on line and can be upgraded any time. With help of several centers, we intend to develop a method to have a standardized procedure used for all countries and accepted by EASA authorities.

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