

ABSTRACT

Information confidentiality issues in the military institution is a must, so far the military aircraft should not be equipped with Blackbox as information storage media data plane (FDR, Flight Data Recorder) and information on the cockpit voice (CVR, Cockpit Voice Recorder). On the other hand, the information is needed for the investigation of an accident, but it also Blackbox can be used as guidance in detecting damage of the aircraft systems at the time of treatment. In this thesis was discussed about alternative solutions for problems that are opposite to each other, especially in the media Cockpit Voice Recording (CVR). Solutions offered in this thesis is the application of encryption on the cockpit voice recording systems. The model chosen is encrypted symmetric encryption streamcipher because its strength lies in the confidentiality of password used. After doing some experiments on the type of password that is used, optimal results obtained by applying the password in the form of sound files with audio frequencies.

Encryption systems are expected to be made by the nation itself may maintain the confidentiality of CVR information yet this information can be obtained when necessary. Stage of the research conducted is limited to the simulation of encryption on the sound file in WAV format with software and followed the prototype phase of manufacture of embedded systems using principal component audio microphone as sound sensor, the ADC analog to digital signal converter, a microcontroller as the central data processing and encryption process, as well as the sdcard as a sound file storage media. Also presented in this thesis testing in some form of password that is used and the level of securities.

The encryption method became one of the methods chosen for the security of information on the Cockpit Voice Recorder (CVR) with the settings and key generation algorithm will determine the level of encryption security. Information security management system data on the Cockpit Voice Recorder (CVR) military aircraft can be applied in a manner keeping the password to decrypt. Decrypt the

voice data is used to determine the cause of the accident and taken as a lesson to improve the safety of military aircraft.

Key words: CVR, Encryption, Streamcipher