

Appendix A

Systems similar to those currently installed at aerodromes offering a full ATC service

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- i) For an FIS unit a number of equipment options exist, this includes an ATC type recorder but these are likely to be beyond the budget of a typical FIS Unit. Many suppliers offer lower cost 'cut down' systems that provide much of the functionality and are suitable for an FIS application.
- ii) ATC or ATC based 'FISO' recorders offer the assurance that the CAA will generally have knowledge and experience of these products and the users of these systems will have been issued with an Air Navigation Order (ANO) approvals for installation, operation and continued maintenance.
- iii) ATC recorders will usually employ proprietary formats to record the original data onto an internal hard disk and this format is retained on any transfer to removal media. Additional measures to ensure the veracity and integrity are often employed because the manufacturers are aware that the data retained on their systems could be relied upon as evidence in criminal proceedings. Where a non-proprietary recording format is used, systems should be configured in accordance with the parameters set out in Appendix B.
- iv) ATC recorders are usually required to provide continuous operation and this often requires duplicated electronics and multiple hard drives (arranged as a RAID array) to ensure that recording is available every during periods when one system is under maintenance or temporarily defective.
- v) In contrast, a typical FIS Unit has published hours of operation and outside of these hours the unit is free to undertake any maintenance or restoration activities.
- vi) In that case the FIS Officer on duty would be required to check that the recorder is operating normally at the beginning of each watch and if necessary to shut down the recorder at the end of the watch.
- vii) The latter would not normally be necessary because a digital recorder can only record data when data is presented to the recorder so outside of normal operational hours, the only reason for shutting the recorder down would be preventative maintenance or when interruptions to the external electricity supply are anticipated.
- viii) An FIS recording system could then consist of a smaller and therefore less expensive version of an established ATC recorder and the CAA is aware that several manufacturers are now offering this type of solution.
- ix) Example pricing for these systems is included in the "Impact Assessment"
- x) FIS Units which are interested in obtaining and installing these systems are reminded that, at present, the CAA does not offer "type approval" for ground systems and thus all such systems will be subject to a Part One Safety Case and subsequent Approval under Article 206 of the ANO.
- xi) FIS Units are advised to obtain details of any components which are shared with the ATC versions of these recorders in order to confirm the "pedigree" of these systems for inclusion in the Safety Case Part 1.