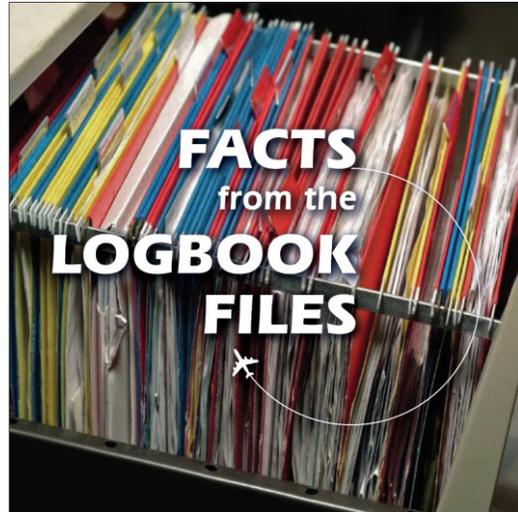


Cost of Paper Records to Business Aviation

COST OF PAPER RECORDS TO THE AVIATION COMMUNITY

Using paper logbooks, instead of an Electronic Recordkeeping System, costs the business aviation community, on average, more than **\$125 million (\$5,000 per aircraft)** every year due to lost records, missing information, shipping and storage, travel time for aviation personnel, and the maintenance research and clerical time necessary to administer paper records. The following is a brief synopsis of these costs:



➤ **LOST LOGBOOKS AND RECORDS.**

Each year the business aviation industry loses on average, five aircraft logbooks due to damage, neglect, misplacement, loss in shipping, and/or other various reasons. Cost to industry: Approximately five (5) incidents @ \$1,500,000 devaluation per incident = **\$7,500,000**.

➤ **MISSING INFORMATION FROM THE LOGBOOK CRITICAL TO THE AIRCRAFT'S VALUE AND AIRWORTHINESS.**

According to several well-known Aviation Law firms; on average, one out of five aircraft sales are negatively impacted by logbooks issues. The most common issue is missing information (such as an Airworthiness Certificate or logbook entry) on time critical components. Typically, the only resolution to this issue is to replace the component. Cost to industry: Approximately seven-hundred (700) aircraft per year are involved in a sales transaction, resulting in 20%, or 140 incidents annually, at approximately \$30,000 per incident (to replace a component or complete a missing inspection) = **\$4,200,000**.

➤ **RESEARCH TIME FOR MAINTENANCE PERSONNEL TO FIND INFORMATION AND TO AUDIT LOGBOOKS AND RECORDS FOR AIRCRAFT AIRWORTHINESS AND VALUATION PURPOSES**

Approximately 11,000 business aircraft reside on FAR Part 135 Operating Certificates, each aircraft requiring approximately fifty-five (55) hours of records research each year. The remaining 14,000 business aircraft are operated by private flight departments which require approximately ten (10) man-hours every year to research the records.

In addition to basic operational research, approximately seven-hundred (700) aircraft undergo a Pre-Purchase Inspection during a typical sale which requires a logbook audit. These audits average approximately fifty (50) man-hours each aircraft. Total: seven hundred, eighty thousand (780,000) man-hours. V-Log's electronic search engine has proven to reduce research time by 90%.

Cost to industry to continue using paper: Approximately 780,000 man-hours x 90% @ \$75 per man-hour = **\$52,650,000**.

➤ **SHIPPING OF LOGBOOKS AND RECORDS.**

Every year approximately 40% of the business aircraft fleet will require the aircraft's logbooks to be shipped (usually overnight due to many factors including: time away from maintenance's control, time urgency of critical information, ability to insure the documents *, etc.). Cost to industry: Approximately 10,000 shipments @ \$250.00 per shipment = **\$2,500,000**.

➤ **TRAVEL AND RELATED EXPENSES FOR PERSONNEL TO REVIEW LOGBOOK INFORMATION.**

A common practice in the business aircraft industry is for personnel requiring access to aircraft's records and logbook information to travel to the records' location for auditing purposes (such as sales transactions, pre-purchase inspections, insurance audits, etc.). Standard expenses include: airfare, hotel, rental car, etc. for several days in order to accomplish a typical aircraft records audit. Cost to industry: Approximately 2500 trips @ \$5500 per trip = **\$13,750,000**.

➤ **CLERICAL TIME TO ADMINISTER PAPER RECORDS.**

The Business Aviation community operates approximately 25,000 aircraft, with an average usage of three-hundred (300) Flight Hours per year. Time needed to document and administer maintenance related work accomplished on these aircraft in order to stay Airworthy is estimated to be approximately one-quarter (1/4) administrative-hour per flight hour. Using an electronic record keeping system would reduce the man-hours involved in the administration of aircraft records by an estimated 65%. Cost to industry to continue using paper: Sixty five percent (65%) of 1,875,000 administrative hours @ \$35 per hour = **\$42,656,250**.

➤ **STORAGE OF LOGBOOKS AND RECORDS.**

An aircrafts' paper records and logbooks accumulate over the life of the aircraft. This takes-up a large amount of space to house and store this large amount of records. Added to the issue is the fact that most of these records need to remain readily accessible. Cost to industry: Approximately 25,000 aircraft require an average of 2.5 square feet of floor space to store their records @ approximately \$30 Sq. ft. = **\$1,875,000**.

* Fed Express still continues to ship aircraft records. However, after losing a logbook in transit; the company no longer insures, or takes responsibility for, aircraft records lost while under their control.

Conclusion

Using an Electronic Record Keeping System to replace paper records will save the business aviation industry over **\$125 Million (\$5000 per aircraft)** annually, with the additional benefit of eliminating the problems associated with lost logbooks and missing records information, shipping costs of logbooks and records, travel and related expenses for personnel to review logbook information, storage of logbooks and records, and reducing clerical and research time for maintenance personnel. Additionally, in a time in which we are beginning to see the devastating effects of increasingly limited personnel resources in our industry ... \$125,000,000 equates to over 1100 full-time employees per year, just to handle the extra work paper records creates.