

A Question For The Appraiser

Question: Where does the source data used by the National Aircraft Appraisers Association (NAAA) come from?

Answer: The issue of database creditability develops when there is an unexpected surprise due to a “disconnect” between expectations. For example, it is fairly straightforward to look up a specific year, make and model of aircraft in publication “A” and publication “B” and see that they are \$X apart. The expectation is that the final opinion of value identified as part of the Certified Appraisal Report would be somewhere in between. However, this may not be the case for several reasons – none of which have anything to do with the source data - so questions arise about the creditability of the appraiser, the appraisal methods used, what “value” is represented (wholesale, market or liquidation) along with the source data. This type of situation can create quite a bit of tension on the part of the bank/banker if they happened to hire an appraiser who really does not understand the process, the source data used or specifics about the subject aircraft. It also creates unnecessary pressure on the banker when the overall objective was to simply document the collateral thereby reducing the bank’s risk – something they thought would be fairly routine. “Disconnects” in evaluation results should be red flags to the bank/banker that require additional investigation. Typically, the “disconnects” I am involved with are due to unrealistic expectations on the part of the buyer, the broker or the dealer wherein the aircraft has been misrepresented in some manner. An onsite examination of the aircraft and records brought one or more issues to light.

In this specific case, we will focus ONLY on the source data and address other issues in future articles. It should be noted that in the case of aircraft values, **THERE IS NO PUBLIC DATABASE OF AIRCRAFT SELLING PRICES**. Unlike real estate where someone can see what similar property sold for in a given location by reviewing local tax records, aircraft have no such method of tracking or reporting. Therefore, other methods to obtain this information must be employed. The inability to readily obtain actual sales data is one of the reasons I continue to indicate that aircraft are like nothing else a bank lends against.

When asking any resource “where” or “how” they get their data, expect the answer to be nondescript. If obtaining this data was simple, quick and easy, there would be many resources to draw from (with varying degrees of accuracy no doubt). At this time however, there are really only three resources used widely in this industry for General Aviation Aircraft. Out of the three resources available, two are in the publishing business and NOT in the aircraft appraisal business. As a result, the focus is somewhat different between these sources which may tend to skew the data collected and published. The key objective when *appraising* an aircraft is REPORTING value and not

A Question For The Appraiser

SETTING value. Let's consider how data may be obtained first and what data is actually needed.

When appraising an aircraft (and *especially* an aircraft), there are two key attributes to consider. The first includes key details about the aircraft itself such as the condition and status of the airframe, documentation, equipment, etc. and it should be noted that no two aircraft are exactly alike. Differences between aircraft may be small in rare cases but generally there *are* differences once aircraft are in service for any amount of time. **An article from *Aviation Consumer* stated that aircraft values can vary by as much as 50% between two aircraft that are a single serial number apart due to these differences.**

The other attribute involves current sales data or market data – in other words, what these aircraft are currently selling for. One of these attributes (aircraft details or market data) without the other is somewhat meaningless because the market changes over time but also the buyer's tolerances (think damage history here) also change. Another good example of market/aircraft changes involves the “average” airframe time for a specific year, make and model of aircraft. The “average”, of course, should be based on actual numbers or hours flown. This seems obvious but as the economy changes, aircraft may be flown more or less than normal thereby impacting the “average” over a given period of time. The point is that there are a number of variables to consider and track on a regular basis – all of which tend to change. Some of these changes are more frequent than others. As a result, there is a need for a large, routine “sampling” to give the resulting data some degree of statistical accuracy. It would be incorrect to “cherry pick” or selectively use data because any “selection” of the source data is an attempt to SET value versus REPORT value thereby skewing the results. For example, if a large flight school went out of business and dumped an unusually large number of piston single engine aircraft on the market, the overall market for that particular make and model may be severely depressed for a period of time. I bring this point up because the Editor of one publication stated (in my presence) that they attempt to determine “why” a particular aircraft sold – which I believe is inappropriate and incorrect in any proper collection and analysis of data. I would presume that the resulting information would then influence their reporting in some manner – which would be an attempt to SET value or publish some predetermined result (useful if the objective is to sell books or subscriptions but worthless if the objective is to provide creditable, reliable data). On the other hand, the NAAA believes that a “sale is a sale” with no regard for the reason behind the sale. Once the data is analyzed, anomalies are identified and addressed accordingly but the intent is to analyze ALL of the data provided/available not just selected cases or scenarios because a thorough analysis of all data identifies trends and produces creditable, reliable information.

A Question For The Appraiser

The NAAA was established out of a need by banks who financed aircraft to find a more reliable and effective process to gather and report data as the publication of the day (over 30 years ago) was believed to be inaccurate and lacked detail. In answering this need, the NAAA developed a process of gathering aircraft specific details through the efforts of its members (unbiased third parties to the transaction) in their appraisal efforts along with actual sales data – primarily from the banking industry who have no incentive to misrepresent the data one way or the other – in order to maintain a database of component values. Other reliable and unbiased resources must be used as well to validate and confirm the information received but the most reliable data comes from the efforts of hundreds of NAAA members involved in thousands of aircraft transactions annually along with sales information tied to those specific aircraft that is provided by an unbiased source. The accuracy and reliability of the resulting data has proven itself time and time again in the courtroom and when compared against actual sales (post sales information of subject aircraft).

Other methods appear to take data submitted by “subscribers” but there is a certain risk associated this type of data collection. It always raises the question about “who” submitted the data and how accurate that information may be or what may influence that submission. It is unclear how limited qualifiers such as “Avionics – Quality and Quantity” are used when the various types of equipment available can result in the same “quality and quantity”. However the overall value between any two configurations may be substantial. One missing component involves the evaluation of the airframe itself separate from the paint. The elimination of a key value point such as the airframe itself along with others should raise a concern about the use of those publications for lending decisions.

The key issue however is the final opinion of value compared against a number obtained from a website or publication and does the final opinion of value help banking clients in their aircraft financing efforts. To answer these questions, let’s examine the subject aircraft. If the configuration of the subject aircraft represents the “Average Retail” configuration (found in most publications and websites) then the difference in many cases would be fairly small. This would be a reasonable “apples to apples” comparison of one dataset using a specific configuration against another dataset using a very similar configuration. **Unfortunately, very few aircraft represent the “Average Retail” configuration.** The manner in which those differences in the configuration are evaluated introduces one or more degrees of error. Other situations involve the age of the market data itself. NAAA data is updated every 30 days which seems to be sufficient even in volatile markets. Unfortunately, publications have been very slow to change or update and in extreme cases the difference has been shown to be significant

A Question For The Appraiser

(double digit percentages) – thereby introducing additional degrees of error all of which can accumulate into an unreliable result.

Most banking clients want to “do the deal” and prefer to find their answers in a publication or online. However, they should also want accurate, reliable data that they can trust and information that can be supported to avoid putting themselves and the bank at undue risk – not to mention the risk of the bank’s customer who may overpay for an aircraft or purchase an aircraft without knowing key details. In a perfect world, it should be easy and straightforward to meet all objectives. However, the only way to obtain creditable and reliable information is from a first-hand analysis of the subject aircraft and its records using current market data. Shortcuts, such as desktop reports, introduce varying degrees of error that produce unreliable results because key attributes of the subject aircraft are overlooked or the published data itself is suspect.

Banks/bankers that are operating at the next level in their aircraft financing efforts utilize methods that document the subject aircraft’s contents and conditions by an independent third party. They find fewer issues and the quality of the deals is greatly improved.

Mike Simmons has written and published many articles on the subject of documenting and evaluating aircraft and worked with a variety of banking clients both large and small as an aviation consultant assisting them in their aircraft financing policies and day to day projects. As a normal course of business, Mike has observed several bankers over the years making questionable decisions when financing aircraft because those questionable decisions were the easy thing to do at that time, the banker may have been unsure about the right action to take (unaware of the services that could have been helpful) or they simply did not have good data to work from – and these are the types of situations that Mike attempts to highlight along with other options to consider. The objective is to help banking clients make solid business decisions based on creditable, reliable information.



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