Part I Background and Need

I've owned a Beech Sundowner (185 HP, fixed everything) for just over a year, and I was beginning my IFR training when I realized that despite having an RNAV-capable but otherwise basic GPS, my Sundowner lacked most of the other equipment needed for safe, long cross-country IFR flight. So I began my quest for a ‘rest of my life’, fully IFR-capable plane that I could train in and fly for the next 20+ years.

Talking to other pilots and mechanics who were not Beech people per se, it was confirmed that “Yes, if you can afford it, a Beech is just a better airplane from the ground up”, so I was vectored into Bonanza land. While the general outline (and even model-specific details) of the -33, -35, and -36 line are well known to most people reading this magazine, I had no idea what the product line was. Like, what happened to the -34’s ?? And how come successive models had incremental letters to their prefix, not their suffix as would be expected?

So the very first thing I did (and would return to repeatedly in my search) was turn to my good friend Google which brought me to Wikipedia’s page on the subject. (https://en.wikipedia.org/wiki/Beechcraft_Bonanza)

Fortunately, I do computer IT for a living and have a few simple but powerful tools on my PC, like SnagIt screen capture + editing ($49) that allowed me to create the above ‘montage’ that also served as the cover of my 3-ring slant-D ring binder that would become my dossier of the many sheaths of paper I would generate during the months of my search.
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Printed out in Landscape (sideways) on 8x11 it is a perfectly readable history of all the Bonanzas, including engine HP, upgrades and number of planes made, but also a rather nice cover for my notebook!

I discerned that for my purposes, the -33 and the -35 were virtually identical in performance. The -36 offered cabin class seating and more of a ‘station wagon’ capacity which was overkill for me, now that my 2 sons were in college and the typical flight was just Carolyn and myself.

My budget was about $100k for a basic plane that I would need to add some avionics to (or was nearing TBO), and up to $150k for a ‘This is the plane I can spend the rest of my life with – and mid-time SMOH’. Another very important budget expense is Insurance. As a relatively low time pilot (under 200 hrs. in type) without an IFR endorsement, my insurance on a $135,000 plane is about $5,000 a year. Yes, that much. As my agent explained “Henry you are just a risky proposition on paper. Get 150-200 hrs. in your first year and your IFR rating, and your premiums will drop. Otherwise, you look on paper like one of those hotshot guys with money and no experience that crashes an expensive plane.” It is what it is. Budget for it.

Unlike my 4-cylinder, 2000 hour TBO Sundowner that would cost only $20,000 to overhaul, the 6-cylinder Bonanzas had a 1700 hr. TBO that would suck $34,000 out of my bank account. So like my Sundowner search a little over a year earlier, my first step was an Excel spreadsheet.

That leads me to a bit of a philosophical – some will say heretical – position:

Buying a plane is simply a matter of what you are getting for your money. You fall in love with your spouse or even a puppy, but not a plane during the purchase phase.

Some people – especially Sellers and their Brokers will tell you that “Just dollars and cents is not the way to make such an important decision”. Horse puckey!

In the 1940’s movie “Mr. Blandings Builds His Dream House”, Cary Grant is a NY advertising exec who sets out to buy a rustic Connecticut farm to build his family’s “Dream House”. He gets taken in by the charm, the image, the dream and ignores his lawyer’s counsel to negotiate a far better price than he was offered. In a speech, Cary Grant says so nobly:

“When you see a beautiful painting like the Mona Lisa, you don’t ask ‘How much is the paint? How much is the canvas?’ You say ‘It’s beautiful and I want it. And if it costs a few more dollars, then I’ll pay it – and gladly!”

Oh, I have to stop typing to wipe the tears of laughter away from my eyes as I recall that scene.

Anyhow, Cary proceeds to get screwed, swindled, and overcharged at every turn, paying probably double what he should have and almost goes broke and loses his job in the process. (Sounding familiar to any of you yet???) ‘Yeah, that’s a lot like what can happen to someone who buys a plane with his heart and not his head.

So, how much is a plane worth? Well, AOPA has VREF, but I need to brag a bit and acknowledge that my educational background includes extensive mathematical analysis from MIT in the form of Electrical Engineering Bachelor’s & Master’s degrees, as well as an MBA from the lofty and quantitative University of Chicago Graduate School of Business (home of free market laureate and Nobel prize-winner Milton Friedman). And ever since my boys were little, I taught them the almost-magical formulation for calculating the worth of any object in the world:

Q. How much is anything in this world worth?
A. Only as much as the next guy is willing to pay for it. Period.

So much for my fancy-smancy formal education. It matters not a nit what the Owner put into it, or what VREF says. Witness the Houston housing market of the 1980’s or the legion of ‘underwater’ mortgages of a few years ago even after homeowners paid in over 20 years of mortgage payments!

Here’s a snapshot of a VREF for a Bonanza (VREF is the AOPA ‘blue book’ of airplane prices)
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Each vertical black line is a 3-month quarter, each red line is a full year. And recall that AOPA is merely reporting on the selling price after the fact to derive these graphs.

And like buying a boat: Prices are cheaper in the dead of winter than at the blossoming of Spring.

So it’s all about “What is the Seller’s next best offer” and “Are they willing to sell at current market price?”

For example, the 1979 F33A that I ended up with was originally listed 4 months earlier at $170,000 and got nothing. Price came down to $144,000 ask and we negotiated down to $132,500. Typically, planes sell for about 3% to 8% off their asking prices, as a vague rule of thumb.

Right now, the Market seems to have bottomed out and prices may start to rise again, as we are already seeing in the housing market.

Part II The Purchase Model
On to my method. I use quantitative values as much as possible to glean out the good deals from the ones that just aren’t going to sell at that price. For example, if you have 2 nearly identical planes, but one is 0 SMOH and the other is 1700 SMOH, how much is one worth more than the other? Assuming you heed TBO, the answer is easy: The price of an overhaul, which is about $34,000. If the 2nd plane had 850 SMOH, it would be half that or $17,000. Or simply, think of a taxi-fare meter on the engine that counts off $20 for every engine hour, and will therefore hit $34,000 at 1700 hours.

Paint? Interior? Avionics? You can buy or upgrade any of those. A complete paint job over the ugliest ‘what were they thinking???’ plane will be about $12 - $16,000. Have you seen those brown cloth interiors that must have come right off the set of the 1970’s TV show “The Brady Bunch”? Replace ‘em all for $5-$10,000. Just put it on the spreadsheet, and see what any given plane is worth to YOU.

For example, I wanted a good autopilot, which for me was a KFC or recent S-TEC, which I put on the spreadsheet at about $15-$18,000. Century autopilots (especially the I or IIs) I put in at $0. (Just a personal judgment call, nothing against pilots who have Century’s and love them…).

I have 2 spreadsheet forms. The ‘table version’ is 1 row per plane where I just fill in all the values (model year, TTAF, SMOH, Avionics, etc.) and have a calculation that says “How much is this plane worth TO ME” and then I subtract that from the “Asking Price” to see which planes are the best targets for me. Typically I enter any/all planes from the websites (available in the download of this article) onto this master sheet to see which planes jump out at me.

The 2nd spread sheet is a ‘per plane’ sheet that I print out and staple to the plane specs to help me remember the quantitative value while drooling over the leather seats, shining paint job, and possibly overlooking the TBO engine and worthless avionics.

Ok, here’s my ‘per plane’ spread sheet.
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Using my SnagIt $49 screen capture program I can even copy/paste images into the Excel sheet. And in Excel you can create a new ‘Sheet’ for every plane of interest, so they are all at your fingertips for quick comparison.

Nerdy as the next few paragraphs are, let’s look at the sections.

Rows 1 and 2 are just standard Excel formatting to make the model and Tail number easily recognizable.

The magic starts at row 3. This is an arbitrary ‘base price’ for a 33 or 35. It could be $200,000 for all it matters, because what you are going to be comparing is the Relative Differences on row 28 between any two planes. It turns out that about $110k is a reasonable VREF number and one that makes MOST planes have a slightly positive value on row 28 which therefore makes the occasional undervalued plane jump out as negative red numbers.

Most of this sheet is fairly self-explanatory for anyone who has used Excel, but not everyone has so I’ll try to strike a middle ground. Column F will be this plane’s value for any given attribute, with group subtotals posted in Column G for readability. For example, Row 19 shows that this plane has about $35k going for it in Avionics. Just nice to break out ‘engine/airframe merits (or demerits)’ from things like Avionic de/merits or cosmetic judgments.

Next is SMOH, which is simply $20/hr. for every SMOH hour on the plane ($34k/1700 TBO = $20/Hr). Mathematically, since we are only looking at relative differences between planes on row 28, we could assume a 0 SMOH base for each plane, or a mid-time 850 SMOH. To be a little closer to real numbers along the way, my spreadsheet assumes 850 as the center point and subtracts $20/hr. for each hour over 850 and adds $20/hr. of value for each hour under. Since this plane has only 80 hrs. SMOH, it has earned 770 hrs. (850 minus 80) times $20 ‘credit’. Make sense so far?

The rest is more of the same. Let me skip down to rows 7-11, the AutoPilots.

Remember that this is a common Sheet to be copied for any plane, so I leave all common options (like AutoPilots) even for options that a plane may not have, just so it is easy/consistent/readable to compare across planes when I put them side-by-side.

Most planes I found either had either the KFC 200, the STEC 50-60, the STEC 30, or the Century APs. I valued the KFC and the STEC 50-60 equally (about $20k) and made a single entry for them (row 8). In this plane’s case it also had a nice KAS 297 altitude preselect so I did an Excel ‘insert row’ (9) to make a note of that. Line 10 is to mark any plane that might have an STEC30 which I valued at a lesser $15k, and line 11 for the not-desirable-for-me Century III & IV. Century I and II planes would be worth $0 to me in the AutoPilot department. So in Column C I put a ‘1’ if it has this attribute, else leave blank (e.g., a mathematical zero), which is then multiplied by the stock value of this attribute in column D to be extended to column F as applicable for this plane.
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Ditto with the GPS’s in rows 12-16, and the occasional Aspen noted in row 17.

Note that the values in column D are arbitrary, and should reflect what that attribute means to YOU. If you don’t like glass cockpits, then even a G500 s/b at $0, notwithstanding that it costs $10k+ to install. Because unless you are just buying a plane to ‘flip it’ to another buyer (not the audience for this article), then it is of no value to you.

Part III The Web Search
Now to buy. The world is a much more efficient place to find the love of your life, now that we have the internet. The basic places to look are:

- Trade A Plane
- ASO
- Controller
- BeechTalk

The first 3 are conventional sites with standard format and filters, making it easy to search and compare. BeechTalk is a forum style, requiring you to scan entries in the “Peddler Talk” section.

All of the conventional sites will allow you to put in filter criteria, like plane (of course) but also range of years, range of prices, keywords, etc. Here’s a sample of the filters you can get on each site:

Note that ASO.com even allows you to save your search criteria, giving each a separate name like “1975 or Newer F33s”, so you can easily run the standard search as soon as you get to the web site. And all 3 allow you the ability to only show new entries so that you don’t have to plow through the (dozens) of planes that you’ve already seen in weeks gone by. ASO is arguably the easiest and most flexible as it allows you to not only save to a Favorites, but will even email you when a new plane (or an update to an existing ad – like a price change) matching one of your saved searches appears. If you are waiting for that ‘good deal'
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with cash in hand, this can be a big advantage. Controller and ASO allow you to specify how many days ago to use as a filter whereas TradeAPlane unfortunately makes you enter specific date ranges.

And all have ‘keyword’ search features. So when I wanted to just look at planes with a KFC autopilot, I simply added those 3 letters in the search box. Then a separate search for STEC, which is sometimes spelled S-Tec in the ads.

Speaking of ‘keeping on top’ of entries, you may want to check in on these sites one or two times a week. The easiest way that I found to do this is to make a recurring entry in my Outlook Calendar, like ‘every Wednesday at 8am’. The contents of the ‘appointment’ are the URL (website addresses), like shown in this screen shot:

Not obvious to normal people, but the address of a website (technically called the URL or Universal Resource Link) will often contain the search criteria for the page to be delivered. So here I’ve run a search and the copy/pasted the URL to my ‘every Wednesday morning at 8am’ recurring Outlook appointment. In this way, every morning this ‘appointment’ comes up and I just click on each of the web addresses (hyperlinks) in the ‘appointment’ and it takes me directly to the website!

Speaking of our good friend Google, you can ‘Google’ the tail number of a plane you are interested in. You can often find interesting ‘history’, including pages on previous brokers’ sites where the plane was offered (at a previous price), additional pictures, and in one case a forum thread where someone had already done a PreBuy on that plane and found it to be a dog with more hidden fleas than you want to know about. Good stuff.

You probably should wait a month or so if you can, to watch and see what planes are actually selling for. Remember my previous mandate: “Any object in life in only worth as much as someone else is willing to pay for it”. So pick out a few planes like the ones you’re interested in, and follow up every month or two to find out what they actually sold for, and keep that in your 3-ring binder.

Part IV  Making an offer on a plane
I retained the services of an experienced pilot (Aaron) at my FBO as my paid consultant. Through BeechTalk and ABS, I was also fortunate enough to be befriended by Dick — a retired GM pilot who is very knowledgeable and helpful in advising me how to spend my money. When I found a plane that was ‘a possibility’ I would run it through them. Interestingly, Dick found did some very extensive investigation and legwork for me (resulting in some damage history disclosure on a plane that I fell in love but now knew enough to run away from), and yet he also ‘fell in love’ with some planes that Aaron and I looked at through a more critical financial eye and passed on. It was a great symbiotic team for me.

First, set up an escrow account, and put about three thousand dollars in it. I used AIC Title (www.AICTitle.com). AOPA has their own, called Aero-Space Reports. Pick either, but use them. Basically it’s about a $500 fee, usually split between the 2 parties. You can also get Title Insurance that will pay you if someone (e.g., a mechanic) comes out of the woodwork down the road and claims a lien/ownership on the plane. If you are REALLY serious and ready to pull the trigger, put $100,000 or so in the Escrow account, to show the potential buyer that you are not a tire-kicker, and deserve to be taken seriously. These are non-interest bearing accounts, so you make no interest on your money. But w/ CDs going at 1-2%, 3-6 months $100k at 0% isn’t a big loss, especially if it gets you the ‘Cash in Hand!’ discount that the current market is honoring. Two planes that I wanted to buy came back as “Sorry, someone else beat you to it…” only to have them come back to me with “Ehh, the pilot didn’t really have the money and couldn’t get financing…” so if you have an Escrow account up, and funded you have some notable leverage. Wire transfers are inexpensive.
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Also, getting a home equity loan (using your house as collateral instead of the plane) currently can get you a little-hassle loan at under 4% on a 10 yr. fixed-rate loan. USBank that I used will loan you 75% of the equity (market value less amount you still owe) on your house – no points or closing costs – currently at 3.75%.

Ok, you’ve found a plane you want. Now the dance begins. If you were able to monitor actual plane prices for a few months as described above, you may be able to pounce on the once-in-a-blue-moon planes where the owner really does want/need to get rid of it, and prices it to move – NOW. In the other 99% of the cases, you’ll probably want to put in a bid of about 10-15% below asking. And always do this in person or over the phone with the broker or owner – not just in an email. You will increase your chances by demonstrating that you are a serious buyer, with cash in hand and to be reckoned with. Tell them that you have thousands of dollars already set up in an escrow account and it’s time to sell airplanes. If you have the luxury of looking at the plane in person, you’ll want to do that first. Personally, both my Sundowner and the F33A that I bought were sight unseen by me, but meticulously so by Bonanza specialists.

Be prepared to walk away! In any negotiation, the power always belongs to the party that can walk away. It’s when the seller sees you coming a mile away, already in love with the plane that they know that you are not going to hold out ‘for just another few thousand’. My Sundowner was priced well below market for an immediate sale, and that’s what I bought it at. My F33A listed at $144, I offered $125 due to damage, broker held at $135. I was willing to go no higher than $130, and we parted friends. Two or three weeks later I had not seen any better planes on the market (and I was scouting 2x-3x a week, and getting ‘as they happen’ updates from ASO.com) and circled back to the broker. We split the difference at $132,500. But that was still contingent on ‘The Pre Buy in The Contract’. Have your contract at your fingertips, fill it out the moment you have a deal and fire it off in an email the moment you hang up the phone. The AOPA standard contract is the one I’ve used both times, which is available in the download for this article. Note that the Pre-Purchase inspection (The PreBuy) is an integral part of the contract. You must be prepared to walk away from the plane if the PreBuy uncovers unexpected errors that the owner is not willing to pay for.

And remember, you’ll need many thousands of dollars after the sale for the unexpected and maintenance expenses. Don’t spend every last penny on a plane that you then can’t afford to maintain or fly. I should spend a page on this, but for fear of belaboring a point, let me be more succinct: Almost any plane you buy will need something, I ended up spending around $10k on my ‘already very well equipped’ plane on D’Shannon baffles, WAAS upgrade, etc. – and then there is the inevitable ‘just happened’ maintenance that you will need to keep your family safe when flying. Don’t spend more than about 90% of your budget on the plane itself, saving the other 10% for ‘misc.’ extras that will pop up.

Part V The PreBuy
It cannot be overstated how important a good pre-purchase inspection (aka ‘a PreBuy’) is to getting your Bonanza. Not every owner or mechanic who touches your intended Bonanza is as honest, diligent and capable as the people you will find in the ABS. Let the Buyer Beware (Caveat Emptor) is the watchword. Stories abound of trusting buyers who got burned – very burned by being optimistic (pronounced ‘naive’). My own mechanic tells the story of a poor fellow (who should have known better since he was on his 2nd+ Beech) calling with a heavy voice: “Jim, I just bought this bird and I’ve got 26 (bleeping) squawks - and I haven’t even gotten in the cockpit!” Besides the big-ticket items, you may find numerous small-but-still-expensive things like this poor guy’s internal heater that was literally hard-wired to the battery. Ouch. Give you a hint as to the lifetime of shortcuts he just inherited?

Or the equally hapless (and now much poorer) V35 owner who assumed that a recent Annual from a generally well-respected East Coast dealer sufficed for his own PreBuy. The ferry pilot delivered his plane during the owner’s absence and in the morning the maintenance guy called him to say “Your plane is sitting over 2” lower on one side, with a lot of strut showing….” That was just the beginning. Beware. Like the old automotive gas station mechanic joke:

“Do you fix Volvos here?” the car owner asked.
“No” came the reply, “but we work on ‘em!”.
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Same is true with airplane mechanics. And because of the reduced transparency in the industry, they can probably get away with a lot more sloppiness than auto mechanics.

In my own PreBuy, recently out of an Annual, my mechanic found completely mis-adjusted wirings, backward muffler tubing, burned out beacon bulbs and even a beacon with no bulbs in the socket at all! But that was the least of my potential disasters had I not made a PreBuy a part of the purchase contract. Over $15,000 (yes, $15k – not a typo) worth of problems. Among them were 2 overlooked ADs. One was admittedly subtle that only a true Beech mechanic might have caught (basically all 6 cylinders needed to be thrown out - $10k in one stroke!). The other was simply inexcusable. But without a PreBuy clause in the contract, this would be 100% my problem and expense. Let’s see, $850 expense for a PreBuy that resulted in a price reduction of $15,500 the next morning, that’s a savings of … Oh, you do the math.

Many pilots scoff at spending money on a PreBuy. A $900 expense going into a $100,000+ purchase? Stealing a line from the “Forrest Gump” movie: “Are you crazy, or just plain stupid?” Put another way:

Anyone who doesn’t get a thorough Pre-Purchase Inspection from an independent Beech specialist is a giant idiot.

Too subtle? This point cannot be over emphasized. Yet it amazes me how many people will plop down over $100,000 but skimp on the inspection. Absolutely dumbfounding.

Where do you find a good Beechcraft mechanic? Look no further than www.Bonanza.org which lists member-recommended mechanics, by State. Here’s a sample of the page:

Through this resource and my new friend Dick I was fortunate enough (no, ‘blessed’ would be more accurate) to have found Bob Ripley in the Atlanta area. Not only did he give me a professional 2 ½ page squawk list (with itemized Parts & Labor pricing) to fix this ‘perfect’ plane he was able to get on the phone with the broker and explain in plain but professional English why this plane needed $15,500 of work before it would look like it was already being described on the web. Long story short, the Broker contacted the Seller (invariably with the black-and-white, in-your-face 2 ½ page specifics that Bob faxed him) and by the next morning the contract price had been re-written with a sale price $15,500 lower. I assumed the responsibility that Bob would be able to fix it all for that amount and closed the deal, or the deal would have fallen through as the Seller would have made the repairs and put the plane back on the market later. I also made sure to send Bob and his family a small Thank You basket. Guys this good are few and far between.

So as I sign off, I am off to Oshkosh. In a few more weeks, I will hire a CFI pilot to take me and my new F33A back to Chicago. At about $50/hr., I plan on spending far more than the insurance company mandated 7 hr. of dual on instructors. Not to be morbid, but as I tell my mechanic “Funerals are always more expensive than maintenance” or instruction. I’ve given up my lifetime goal of winning a Nobel prize but steadfast on my 2nd objective which is to never see my name in an NTSB report. Maintenance, Training, and diligence are my tools.

See you at the next Bonanza convention!

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