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Hangar Development | A SERIES

With a roaring economy, slightly-rising-but-still-low interest rates, and continued growth in business aviation, a number of FBOs are in some stage of considering a hangar development project today. Perhaps such a project is a requirement of a recently minted lease document, one that prescribes a capital improvement investment in the leasehold. Perhaps existing hangars have been full for years, and the time just seems right to build another.

Whatever the driver, the planning, design, and construction of a new hangar- or hangars- is a serious financial undertaking for an FBO, and not one to be taken lightly. In this series, we'll explore just a few of the steps a wise FBO should consider well before they've planned the grand opening celebration of their to-be-built hangar.

CONDUCT A MARKET STUDY

Though it may be tempting to build a hangar "on spec," to do so with very little research other than an aging spreadsheet of a hangar waiting list of potential customers, is a red herring. Timing of course, is everything, and this classic Ready-Fire-Aim scenario of a spec built hangar can have unintended consequences, including driving hangar prices down when too much supply is introduced in the form

of an empty hangar. In extreme cases, a poorly-timed decision to build can saddle an FBO with a financial albatross- at least initially- one that can jeopardize the long-term viability of an otherwise profitable business. This is not suggest an FBO doesn't know their own marketplace for hangar space, but the first step in hangar development is undertaking a market study of locally available hangar space, and its attendant pricing. And that market study

begins with your FBO's current hangar tenants, and a review of their subleases.

To begin the market study,

first take stock of your FBO's existing hangar space. Are your existing hangars actually full? If there's maintenance cage, GSE cluttering the walls, or that one aircraft owner's prize car or boat tucked away in a corner of a common-use storage hangar, that answer is likely no. When performing this analysis, consider the useable internal dimensions of the hangar if it had literally nothing in it but aircraft. Next,

assuming the FBO's existing hangar space is already being used effectively, has your FBO invested in a hangar stacking software program to ensure there's not a more efficient way to position the aircraft? Specialty programs such as One Mile Up or STAX, are worth the investment, and inexpensive ways to validate more efficient aircraft parking scenarios.

Second, review your portfolio of subleases as part of the market study, and ask several questions: Do all your existing hangar tenants have current, signed subleases? What is the effective per square foot (PSF) rate for your hangar space? When was the last time your FBO raised hangar rates? The point of this self-reflection when conducting a market study is de-risking a contemplated hangar development by getting "the house in order" first. If your FBO is at 100 percent hangar occupancy or more, but you have no legal instruments in the form of subleases in place, stop and de-risk a future hangar development by inking solid agreements with existing tenants that guarantee future revenue. Likewise, if your hangar waiting list a mile long, but prices haven't been increased in years on your existing tenants, stop, and raise hangar prices. While the latter is perhaps a blunt statement, this is the basic economic principle of pricing elasticity of demand. The goal is to ensure- long before a shovel touches the dirt- that the FBO is on solid footing with its exiting hangar tenants by having current subleases in place with pricing at full market rates, in full hangars, before any next steps are taken.

But don't reach for the shovel yet, there's much more to be considered in the market study. Wise FBOs will consider researching the PSF rate and other attributes of available hangar space on airport not controlled by the FBO, such as the airport itself or space controlled by a competing FBO at the airport. Regional area pricing for hangar space also should be considered at nearby airports. Though far from complete, a final step in a market study may include consideration for one-time events



that effect short and long term demand, such as a runway closure of a nearby airport for construction.

ALIGN YOUR AIRPORT LEASE

Though most FBOs do not undertake hangar development without adequate time remaining on a lease to amortize said capital improvement, another box to be checked in the diligence process is exploring if a

potential lease extension with the airport is available. Rare is the airport that shuns private sector development on its leaseholds, as such investment adds value to the users of the airport itself, and the improvements are usually reversionary at the end of lease term. It's a win-win for an airport. Because of that, many airports will consider lease extensions for leasehold improvements by lessees, such as an FBO. And, while long term leases tend to

need to go before a local municipality, airport authority or other governing body for approval, many airports themselves are empowered to unilaterally make short term lease extensions, so long as the term is under a certain threshold. Hence, while a new 35 year lease may take literally years of negotiation to finalize, an Airport Director may be empowered to execute a short term extension, such as five to ten years with the proverbial stroke of a pen.

CLOSE THE DOOR ON HANGAR PROBLEMS

By Jason Myrvik

Avoid being grounded by using these door maintenance tips.

IT'S A beautiful day for flying. The flight plan is filed and airplane checks are done. A push of a button and the hangar door will open to the airfield.

That's how it should happen. But, without regular maintenance checks, there could be a headache ahead rather than blue skies.

Regular hangar door maintenance checks and services will prevent problems and the downtime and expense that come with them. After all, it's much cheaper and faster to prevent a problem than to fix one. These tips will help do just that.

1. Take a wide-angle view. Before each use, look over the whole door for any damage. Ensure

the hinges, rollers and structure all appear serviceable.

2. Examine the movement mechanisms. On bi-fold doors, ensure the cables or straps track correctly over the drum before each use. Each month, do a closer visual inspection of the cables or straps to look for frays, tears or breaks. Check the cable tension by pulling each away from the door while it's closed, ensuring the straps are equally taut. Confirm, too, that the cables or straps hold the

door in a straight, vertical position when it's closed. If any adjustments are needed, be sure to do it while the door remains closed. For hydraulic doors, inspect the lines, hoses and cylinders for leaks, and repair anything that's out of spec.

3. Grease and oil. Each year, grease the door's operating mechanism and lubricate the hinges. On hydraulic doors also check the oil reservoir before operation and, if it's low, refill with hydraulic fluid. Also inspect the gearbox fluid level and drive chains for proper alignment. If the gearbox is low on lube, check that none of the seals are leaking and then follow the manufacturer's instructions for viscosity and quantity of gear lube. The drive chains should be lubricated every six months, if needed.

4. Latch on to durability. If the door doesn't have automatic latches, make sure the manual ones fully disengage before opening. Some manufacturers simplify this maintenance point by using a single manual latch rather than two. No matter the number or style, ensure the latches remain tight against the door jamb, which will prevent potential injury or damage in the event of strong winds.

5. Look and listen. When opening and closing the door, watch the motor and brakes to ensure both aren't over-working or dragging. Listen for anything that sounds different from the norm. If something sounds off, consult the owner's manual or call the dealer or manufacturer.

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A short term extension is especially appropriate if an FBO is in mid-lease cycle, but market demand clearly dictates – and the market study concludes- that a new hangar development is the right course of action. For example, with 15 years to go on a lease or less, few would voluntarily undertake a major hangar development - even if market conditions demonstrate a demand. Yet a 10 year extension literally changes the math, and can breathe

new life into such a project. Finally, additional discussion points for the hangar development lease extension conversation with airport may include a reasonable ground rent abatement or reduced lease rates during construction.

In the next installment in this hangar development series, we'll discuss selecting a design-build partner and creating a pro forma financial model.

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6. Put the brakes on. While closing the door, hit stop when it's 4 or 5 feet from the ground and observe if it stops right away or coasts a few inches. Over time, the gearbox teeth can wear and cause the door to continue to move. If the door coasts 3 inches or more, a brake system will need to be maintained or added.

7. Keep it taut and tight. On bi-fold doors, look over the belts, sprockets, chains and chain links each month for damage, ensuring everything is properly aligned and tensioned. If it's not, contact a dealer for service. For hydraulic doors, inspect the fittings on the hydraulic lines and hoses every three months to ensure they are tight. Also check the hydraulic pressure during operation. On both door styles, ensure receivers and remotes are undamaged.

8. Don't skimp on the opening. The limit switch, which controls where the door stops when opened or closed, may need to be reset occasionally if the door stops just shy of closing or doesn't go up all of the way. Manufacturers typically provide adjustment instructions in operator's manuals, but some manufacturers ensure it's at the user's fingertips, placing the instructions under

the control box cover. If the limits are off, avoid slippage by ensuring that the control box sprocket screw is tight and the chain tension is correct. For added safety, use override switches that will stop the door from moving past its fully open point should the limit switch fail.

9. Check on safety. Look over the safety guards and shields every to ensure they are installed correctly over the operating system's lifting drums, chains and sprockets as well as over the automatic latch components. If the door uses manual latches, test them by holding the switch while attempting to open the door; the door should not move. Also, ensure all safety decals are still in place and readable.

10. Keep an eye on it. Regularly clean the photo eyes and sensing edges, which detect objects in the door's path, to ensure the door continues to open smoothly.

Just like any other piece of equipment, repairs tend to be needed more frequently as a door ages. If repairs are needed every six to 12 months, it will be worthwhile and more cost-efficient to explore purchasing a new door. When that time comes, work with an experienced manufacturer that will

manage the entire process, from carefully checking the building's specs and providing a design and accurate estimate to engineering a safe, all-steel door to fit the opening. Their service shouldn't end there but should continue through the installation and finish work as well as after-sale check-ins to address any concerns.

When choosing a new door, ask about maintenance-friendly options and modern conveniences, such as override systems, high wind-load ratings, automatic latches, brake systems, insulation and door liners, photo eyes, sensing edges, walk-through doors and windows and variable speed drive systems.

Whether new or old, periodic checks will ensure the hangar door operates safely and efficiently for years to come. ■

Jason Myrvik is the general manager at Midland Door Solutions, which manufactures and installs bi-fold and hydraulic doors for new and existing buildings. He has more than 17 years of industry experience. As general manager, he oversees the manufacturing and installation departments, ensuring the best customer service from door design to production to on-site installation. Contact him at Jason@MidlandDoorSolutions.com.