

Briefings – Expanded:

The Importance of Pilot Briefings and How to Make Them Most Effective

by Matthew McDaniel

Briefings – think about it for a second. As pilots, we’ve all sat through them and most of us have also given plenty. Often they are a concise and eloquent highlighting of things to come or things recently completed. Sometimes they are more focused on things for your consideration; things that might happen, but you sincerely hope will not. Regardless of topic, briefings all too often become anything but brief, evolving into rambling diatribes which quickly lull their listeners into total disregard for what is being “briefed.”

Briefing Defined

A search of various online dictionaries reveals a wide range of definitions for “briefing.” Of course, it can be used as a noun or a verb. But, its definition also varies based upon the context in which it’s being used. If you have any military experience, you’ll probably recognize a briefing as a very detailed discussion or lecture (generally revolving around a specific mission). Think of every aviation-themed war movie you’ve ever seen with a room full of nervous, but eager, young pilots being briefed on the classified details of the mission they are about to undertake. Other contextual definitions would include: To give precise instructions (I briefed him on how to start a PT-6 engine); to coach thoroughly in advance (I briefed him on exactly how to recover from a spin); to give essential information (I briefed him on the King Air 200’s limitations). But, it’s the simplest

definition that I want to apply to this discussion of briefings: *To make an abstract or abridgement of.*

Pre-Flight Briefings

As pilots, we were all exposed to pre-flight briefings from nearly our first flight lesson. If done well, those briefings would provide us a fairly detailed picture of what to expect on the upcoming flight lesson, and the execution of the various maneuvers to be learned/practiced. This might include common errors to expect, procedural advice, differing techniques to consider, and performance standards. But, a pre-flight briefing is not something that we see too often in the realm of routine King Air missions. Of course, in non-routine circumstances, they are still a great idea and should be taken full advantage of. Another standard pre-flight briefing would be the weather briefing. In the computer age, this can be accomplished legally in a variety of ways (gone are the days when only a phone call or personal visit to Flight Service would suffice).

Pre-Departure Briefings

This is the briefing that I hope to most specifically target here. The pre-departure briefing is generally done in the cockpit prior to running the initial checklists or at least prior to engine start. It should be an overview of several topics, but not so detailed as to practically become a ground school. Some of the most common

topics to be highlighted in this briefing are listed below. This list might seem exhaustive and counter to my comments about “keeping it brief.” It is unlikely that one flight would require inclusion of all items below. Rather, the items below are topics that would be appropriate to include as the situation requires. Some flights or circumstances will require more topics of discussion than others. Those in bold are topics appropriate for most flights.

- **Safety:** A standard statement prioritizing safety first, always. One would think this could be assumed, but a simple verbalization of it sets the tone for the rest of the operation.
- **CRM and SOP:** Again, one might assume that Cockpit/Crew Resource Management (CRM) and Standard Operating Procedures (SOP) would be implied. One of the major points of any briefing is to reinforce the most fundamental elements of any operation. Again, setting the tone for the operation by verbalizing a commitment to using accepted CRM principals and techniques and adhering to your aircraft’s and operational SOPs.
- **Assigned Duties and Roles:** If you are operating in a crew environment (at any level), it is imperative that all members of the crew understand their responsibilities. Items such as Pilot Flying (PF) versus Pilot Monitoring (PM), and who would do what in the event of an evacuation, would be most common.
- **Rejected Takeoff:** Define high-speed versus low-speed aborts. A quick review of what events or circumstances would merit a high-speed abort. In the case of relatively minor problems, it is often safer to continue the takeoff than to abort. But, several major malfunctions (such as engine failures/fires, flight control malfunctions, or unsecured doors) merit an abort at any speed below V1.
- **High Minimums:** Is either pilot operating on higher than standards restrictions for any reason? How will that affect the operation?
- **MELs or Deferred Maintenance Items (DMIs):** Do such mechanical abnormalities create limitations or restrictions that would not normally exist? Is the operational envelope or mission flexibility affected?
- **Required maintenance checks:** A brief statement confirming the aircraft is legal for the planned operation, and when the next maintenance checks (such as 100-hour, annual, pitot-static, or progressive phase check) are due.
- **NOTAMs:** Are there any affecting your flight today (especially the takeoff or departure phases) and, if so, how?



A quick familiarization of the airport information (runway lengths/widths, anticipated runway exit points, etc.) is critical to easing the transition from landing to finding your way to the final parking destination.

- **Expected Taxi Route:** Large airports often require complex taxi instructions and routings. Such routes often require transitions through published hot-spots and the crossing of active runways. A couple seconds of pre-study here can eliminate a lot of confusion or difficulty along the way.
- **Runway Conditions:** Is the expected runway anything other than smooth, level, and dry? If so, will its conditions affect your takeoff performance or planning?
- **ATC Clearance:** A brief highlighting of any published Departure Procedures (DP) or Obstacle Departure Procedures (ODP) which have been assigned, could be reasonably expected, or plan to be voluntarily followed.
- **Engine Out and Emergency Return Procedures:** Both topics are serious enough to merit a brief review before *every* departure, with special emphasis on any unique circumstances related to the specific departure airport and/or surrounding terrain and airspace.
- **Noise Abatement:** Some airports have very strict noise abatement procedures that should be specifically reviewed. Other airports have voluntary procedures that can be complied with whenever feasible. Brief what to expect and how best to comply with the procedures.
- **Terrain/Weather/Turbulence:** Occasionally, none of these will affect your departure planning. But, most often, one or more of them will merit a brief overview to highlight how they are expected to affect your departure planning and execution.
- **Questions:** Always invite yourself and your crew to raise any concerns or question now, versus later. Better to iron out any misunderstandings or differences of opinion before departure than during it.

In-Range Briefings

This phase of flight can go by a number of names and specific definitions, such as Descent, Arrival, Approach, etc. But, generally speaking, I'm referring to the timeframe from when you are descending into the destination, but are still well outside the actual approach phase. You may or may not already be on a published STAR procedure, depending upon how lengthy it is or whether there is one available at all. If a STAR is expected, reviewing any published altitude and speed restrictions is a must.

- **Arrival ATIS (or AWOS/ASOS):** Review the current destination weather, noting anything to be particularly cognizant of.
- **Approach Type:** If a purely visual approach is expected, a simple statement of that should suffice (with the possible inclusion of any instrument approach to the same runway that might be used to back up the visual approach). If an actual instrument approach is expected, a full briefing of the approach plate should be completed.
- **Instrument Approach:** Most approach plates (Jeppesen or government issued) now incorporate

the "briefing strip" format. This helps your verbal briefing flow smoothly, while ensuring all the critical information is reviewed. Generally, the approach briefing will incorporate the required COMM and NAV frequencies, final approach course, altitudes (initial, step-downs, minimums, touchdown zone, and minimum safe), missed approach procedure, notes/limitations, and required visibilities.

- **Automation Management:** Especially in the event of autopilot coupled instrument approaches (but even in less automated scenarios), briefly review what methods of automation will be incorporated and when each will be deselected in favor of manual operation of the aircraft or systems.
- **Airport Information:** A quick familiarization of runway lengths/widths, anticipated runway exit points, hold-short requirements, and any hot-spots is critical to easing the transition from landing to finding your way to the final parking destination.
- **Special Considerations:** Because aviation will always incorporate a fluid operating environment, we should always remain mindful of special items to be considered when entering each operational situation.



MODERNIZE YOUR COCKPIT

Enjoy a Complete Avionics Overhaul
and Bring a New Level of Situational Awareness, Simplicity & Safety to Your Cockpit.

GARMIN

BANYAN

Call Banyan Today to Enhance Your Cockpit!
Pedro Artidiello • 954.492.3572 • partidiello@banyanair.com
www.Banyanair.com/KAM

Post-Flight Briefings

As with pre-flight briefings, the post-flight briefing is often not part of the routine King Air missions. It is more commonly associated with training or testing events, instructional flights, or special missions. Nonetheless, a brief post-flight review of anything that happened that was out of the ordinary or in some way noteworthy is a good practice, which this author highly encourages. Often, even routine operations will generate learning opportunities that are best capitalized upon via a post-flight review of such events.

“Briefings are a critical part of safe operations, especially in multi-engine turbine aircraft. As with any good thing, however, less is often more.”

In Conclusion

Briefings are a critical part of safe operations, especially in multi-engine turbine aircraft. As with any good thing, however, less is often more. Briefings (and those conducting such briefings) should always strive for a good balance between brevity and conveying the necessary information. It has been my experience (as both the briefer and receiver), that overly verbose

briefings often generate negative returns. Once the point of being “brief” has passed and the briefer continues to drone on, the receiver quickly disengages. Obviously, at that point, the briefer could be reciting his favorite nursery rhyme and the message received would be no less effective. Concise and accurate information, transferred in an appropriate manner, is the point. When concise is removed from the equation, the formula will no longer yield consistent results. Done correctly, good briefings remove surprises, reduce misunderstandings, and promote predictable outcomes. Enough said! **KA**

About the Author: Matthew McDaniel is a Master and Gold Seal CFII, ATP, MEI, AGI, & IGI and Platinum CSIP. In 22 years of flying, he has logged over 12,000 hours total, over 4,500 hours of instruction-given and over 2,500 in King Airs and the BE-1900D. As owner of Progressive Aviation Services, LLC (www.progaviation.com), he has specialized in Technically Advanced Aircraft and Glass Cockpit instruction since 2001. Currently, he also flies the Airbus A-320 series for an international airline and holds six turbine aircraft type ratings. Matt is one of only 26 instructors in the world to have earned the Master CFI designation five consecutive times. He can be reached at matt@progaviation.com or (414) 339-4990.

KING AIR WINDOW INSERTS

STC'D-PMA/FAA APPROVED

What Is the Difference
Between the G & D Aero Tinted Window Insert
and the Polaroid Interior Window Insert?

The \$\$\$\$\$ Cost

With the G & D Aero tinted window you have full time protection against the sun *and* the ability to keep your passengers cool and comfortable. No need to make any adjustments to the windows because the inserts work *full time*.

G & D AERO PRODUCTS
951-443-1224 • FAX: 951-443-1346

FAA & EASA CERTIFIED
Airframe
Components
by Williams, Inc.



Highest quality
wing and control
rebuilding with our
FAA & EASA Certified
Repair Station.

For Over 40 Years

9838 N. 1100 E. Kendallville, IN 46755 260.347.0807 fax 260.347.4820 info@airframecomponents.com



www.AirframeComponents.com