

Bonanzas to Oshkosh XXIX Pre-Briefing

Saturday Morning in RFD

- Wear your Official B2OSH XXIX Flight Shirts. We have free Cygnet-sponsored T-shirts for everyone who is in the flight, including passengers. Save the B2OSH polo shirts for Sunday and the Team Picture.
- There will be an excellent buffet breakfast, served 7:00 – 9:30 AM in the airline terminal. There will be a donation jar. Suggested donation \$10/person.
- Preflight your aircraft. **Pay your fuel bill.** Load your airplane. Remove chocks, pitot tube covers, etc. Secure baggage doors. If you added oil, open the cowl and check the filler cap again. Secure cowl doors. Look at the aircraft of your element mates for same.
- Mandatory flight briefing begins at 10:00:00 AM in the Airport Authority auditorium near the UPS ramp. Use your GPS for a time hack. The FARs do not have a lot to say about formation flights, but they explicitly require a pre-flight briefing. They call it “prior arrangement”. Everyone, by federal regulation, must be there.
- Briefing will end about 10:40 AM. Go **immediately** to your Row Leader’s airplane for a Row Briefing and walk-throughs. After the Row Briefing, your Element Leader will conduct a short Element Briefing and assign left & right wing positions.

Engine Start & Taxi

- Bonanza Lead Element will start engines at 11:45 AM. Your element leader will brief when your element should start. **Heads UP!!** He will pay attention to the progress of start & taxi and signal your start in plenty of time to taxi in sequence. **Heads UP!** If you are in Element 35 and not going to start for 10 minutes, keep your kids near your airplane and **NO WHERE NEAR OTHER AIRCRAFT.**
- Tune the formation frequency on your best radio. Leave it there the whole flight unless instructed otherwise by ATC or Bonanza Lead. Tune and monitor RFD Tower at a low volume on #2 radio. **Xmit & Receive on Formation Frequency** on your best radio. We arranged with RFD ATC to make taxi request on Tower frequency. There is no reason to touch your radios at RFD once you start moving.
- Set Altimeter to 740’ MSL. Do NOT set to baro reading on ATIS. We all should be the same. Altimeters are legal if 75’ or less error. Setting field elevation eliminates that error.
- Kill your transponder. STANDBY unless it’s a Garmin that turns itself on after take-off. If a Garmin auto-squawk, turn it OFF. Pull the breaker. Do not worry about ADS-B Out. FAA hasn’t figured out how to handle formation flights yet.
- Starting from the south end of the row, each element will taxi out in sequence. Airplanes parked in the right wing position will go first, then leader, then left wing, then next element until the whole row has taxied past, then the next row taxis.
- Follow the plane ahead to the end of the runway. Normal taxi speed. There is no need to catch up quickly if a gap opens ahead of you. When it is your turn to enter the runway, enter in your “lane”. If you were parked in the right wing

position for your element, you will enter the runway first. Taxi onto the runway in the correct lane for the wing position assigned by your leader. The leader of your element will enter the runway in the center lane and the 3rd plane in your element will take the remaining lane. Summary: taxi out in parked order and take the runway in your assigned flight position.

- Flag men will direct you to 10 feet nose-to-tail from the element ahead.
- Idle fast enough that there is no way your engine will stumble & quit, but be aware there's a plane RIGHT behind you. Do not blast her.
- Do NOT creep forward! **Hold your brakes** with your feet. Do not rely on your parking brake.
- This is a great opportunity for your right-seater to stand on the wing and take pictures. The sight of all our Bonanzas & Barons in tight quarters with props turning, and the sound of all those Continental engines rumbling and props whirring is incredible. Right seaters on wings: **BE CAREFUL!**
- Those props generate a lot of wind, too. If a wing-stander's hat flies off, tell it goodbye. Do not allow anyone to get off your airplane's wing to fetch a hat or anything else! If it's your lucky hat, or a family heirloom, Too Bad! Tough Luck. Better to leave the hat inside.
- Secure all loose paper and light articles in your cabin, too. It can be hot in Rockford. You will probably leave your door open as long as you reasonably can.
- When you close your cabin door, make sure it is fully latched.

Take Off

- Bonanza Tail will call "IN" on the formation frequency when in position.
- Bonanza Lead will ask RFD Tower for take-off clearance. Clearance is for the entire flight, but a flag man with a stopwatch will indicate when each element leader will take off. **Wingmen: Look at your Leader, NOT at the Flag Man!!**
- Take-off interval will be 15 seconds between elements with 30 seconds before Row Leaders' elements.
- As your turn comes, gently go mixture full rich if you were leaned for ground ops.
- **IMPORTANT!** If your engine quits on the runway, you may try to get it started until your element is #1 for take-off. The flag man will allow 15 extra seconds (30 total), then signal for you to stop cranking. When you stop cranking, he will summon a tug to pull you off the runway. **Do NOT try to crank again!** Repeat: **Do NOT crank again.** When Flag Man Brad says you're done, **YOU ARE DONE!** Pull your magneto key out and display it to Brad. If you crank again, you are guilty of attempted murder. That is not an exaggeration. Once off the runway, you may try again to start it and taxi to the back of the formation for take-off.
- Your leader will twirl his index finger. Give him a big head nod to acknowledge, and increase throttle to 1200-1700 RPM. Look at your leader. Lead will tilt his head back fully. When Lead gets signal from the flag man, Lead will nod head forward. When chin touches chest, Lead will release brakes and smoothly apply throttle, stopping short of full throttle to give wingmen a power margin.
 - Don't look at the flag man! Right wingmen will be able to see the flag man. The Flag Man is NOT your cue – your Leader is your cue.

- When your leader's chin touches his chest, you should also release brakes and smoothly go to nearly full throttle. Until reaching a fast taxi speed, correct from overtaking by lightly tapping your brakes. Once past fast taxi speed, slide feet off brakes and maintain acute position with throttle. Do not fall aft of the 45 degree line. Your leader's wing tip vortices are back there.
- Use peripheral vision to stay in your lane; stay on the runway (duh!) and do not move out of your lane toward your leader.
- Your leader will keep his airplane on the ground until 80 knots indicated. This is much faster than normal take-off so that wake turbulence from preceding elements doesn't cause you to settle or slam you back on the runway.
- When you see your leader's nose gear scissors expand, you know he is about to lift off. Lift off when he does.
- Do not be in a hurry to get your gear up. After lifting off, make sure you do not converge on your leader and do not pass him. Maintain his altitude until high enough to safely find the proper stepped down position. You should drift slightly wide when safely clear of the runway. Do NOT lose sight of your leader!
- Your leader will signal gear up with a thumbs-up. Calmly, raise your gear. Do not rush. You should know where the gear switch is and not have to look, but if you look anyway, only do so for an instant and get right back to looking at the reference points on your leader. If you miss the gear up signal, you won't miss seeing his gear come up. Take the hint.
- You practiced the take-off routine at the clinic. You know what to expect.

Climb & En Route (3000 MSL)

- For the climb & cruise segments of the flight, fly the standard route position: 2-4 wingspans out, wing tip on spinner. Forward limit is line abreast. Aft limit is 45 degrees, referenced by window posts. This is a minor change from past years. Fly **FORWARD of the 45**.
- Help clear traffic on the opposite side of the formation while maintaining attention on your leader. **Do NOT accept a poor formation position.** The plane behind you, which you cannot see, is a far greater threat than your leader, who is clearly in your sight.
- After level off and stable in cruise, slide out and take care of cockpit chores one at a time. Don't go too far wide. 4-6 wingspans. Going wide makes you more acute – easily perceived as going too fast or being too far forward. The tendency is to power back. Stay forward of the 45 line. **Remember the planes behind you.**
- Set prop at highest RPM you can reasonably handle (2500 for IO engines). Look again at lead and stabilize position. Rough lean if you want, but stay well ROP.
- When ops check is complete, slide back into proper position of 2-4 wingspans out with wing tip aligned with spinner.
- While looking at your reference points, be aware of the progress of the flight (no, not on your GPS). Notice the elements ahead for brief moments. Expect the turns in the route and be ready. Especially if you are on the inside of the turn.

- At roughly the halfway point, Bonanza Lead will transmit that he is switching to Oshkosh Tower. Tune your #2 radio to monitor OSH Tower. Continue to transmit & receive on the formation frequency.
- Except for a go-around initiated from final approach, if you leave the formation for any reason, do NOT attempt to rejoin. Resolve conflicts with other aircraft and fly the Ripon/Fisk arrival and park where directed. Or, land at an alternate airport. Transmit on Flight Frequency so we don't worry about you. Tell us about it at the parties.

Approach & Landing

- When Bonanza Lead is 10 miles from POBER, he will radio an order for everyone in the flight to reduce speed from 125 knots indicated to 110 knots. Element Leaders: Know how many inches of manifold pressure to reduce. Wingmen: You will find it helpful if you know, too.
- Your leader will cross POBER at 3000 MSL. He will slow to 100 knots indicated and begin final descent.
- When the inbound turn is completed, your leader will transmit “Element XX Gear Down, Lights On” on the formation frequency. Anticipate this and be wide enough to accomplish both tasks readily without taking attention off lead.
- You will see the airport & runway ahead in your peripheral vision. If you are a right wingman, stay with your element till about 1 mile final, in case your element goes around, then split off and approach Runway 36 Right, while keeping fore/aft position on your leader. You should be acute of the 45 line. Do NOT fall behind!
- Your leader will **aim for the Purple Dot**. For Right Wingers, there are no painted dots on 36R – your approach slope should be to just past the 1st crossing taxiway. A5/P5 on the diagram in the NOTAM. Leaders: do NOT fly a shallow approach – fly a slightly steeper than normal approach to the **Purple Dot**. Do not go for the numbers.
- Check your own gear on final and check gear for your leader and other wingman.
- If the guy ahead of you on the approach has gear in the wells, **TELL HIM**.

Go Around

- If you are too close to the element ahead or unable to land for any reason, go around. Do not slow up to create room in front of you. There's a 7 foot diameter buzz saw behind you.
- In addition to the subjective criterion for going around (too close), we have objective criteria:
 1. If a snake has started before you reach POBER: maintain 3000, turn inbound, and go around when clear:
 2. If you need to S turn on final, then clear and go around.
 3. If you have to slow below 90 knots to remain safely behind preceding element, then clear and go around.
 4. If you have to approach shallower than briefed to keep previous element from going under your nose, then clear and go around.

- Announce going around on the formation frequency. OSH Tower will monitor the formation frequency. Continue to transmit on the formation frequency and monitor OSH Tower. They will hear you and you will hear them.
- Be aware of others who might go around, including the element ahead of you.
- Unless otherwise instructed by ATC, one of your hand-outs has Go Around instructions for each runway's arrival procedure. For Runway 36, turn right BEFORE going abeam the control tower. Going past the tower puts you close to the traffic pattern for Runway 9/27. Depart the pattern right downwind. Climb and maintain 2000 MSL until visual contact with Bonanza Tail.
- Be aware of the path of inbound B2OSH aircraft. A "snake" may have developed at POBER and you may have to fly a lot wider than normal downwind.
- Look for Bonanza Tail and fall in behind.
- If unsure of location of Bonanza Tail, transmit a query on formation frequency. "Bonanza Tail, say position." Stay out of the inbound path and maintain 2000 MSL until Bonanza Tail is in sight. Be aware of other aircraft that may have gone around, either ahead of or behind you.

Roll Out & Taxi

- After landing, taxi to the end of the runway as fast as reasonable to make room for aircraft behind you. Fast taxi is of greater importance this year with the new approach point (Purple Dot). 30 knots is not too fast. Taxi straight off the end of Runways 36 and follow flag men's directions.
- Do NOT do anything on the runway or while taxiing fast or taxiing in close quarters with other aircraft. Do not raise flaps. Do not turn lights off. Do not open cowl flaps. Do not open the cabin door for air. One hand on the yoke, the other on the throttle, and HEAD UP. Only perform after-landing checklist items when you can look at switches before actuating them. We do not need an inadvertent gear retraction on the runway or anywhere else. If you want the door open and have a passenger competent to perform that duty, then brief it before the flight takes off.
- Note: Flag men are trained to slow taxiing traffic. Obey their instructions, but keep your forward momentum, if possible.
- Do not show disrespect for parking volunteers or flag men.
- When on the grass, hold yoke full aft. It takes effort fighting bob weights and down springs in most Bonanzas, but do it.
- When we taxi down the rows to our spots, the first side of each row will taxi straight in to their spots. The other side of that row will turn for tail-in push back. When in place, shut down ASAP, pronto, immediately. Stop that prop! Absolutely no "turbo cool down". If you have a TC and cannot abide by this rule, you are **not welcome to fly with us**. It's not personal; it's safety.
- If you have kids, keep them in your airplane till all props around you stop.
- Tie your aircraft down. Do not walk away from your plane until it is tied down.
- After pushing back and tying down, help others. But watch for people vs. props first & foremost. Don't touch anyone else's propeller for any reason. If a blade is in the way, let the owner move the prop. You don't know whether the magnetos are on.

- Meet with your Element mates for Element debrief.
- It's Margarita Time!

Comm Discipline

- With 145-150 airplanes all on the same frequency, comm discipline is critical.
- Five aircraft will make "Rolling" calls. Bonanza Lead, Row 4 Leader, Row 7 Leader, Baron Lead, and Bonanza Tail. This is a change from previous years.
- The same 5 will announce over Janesville and over Juneau.
- At about the halfway point, Bonanza Lead will order monitoring of OSH Tower. The frequency should be in the standby window of your #2 radio, which should be monitoring RFD Tower. Tap the flip-flop button and verify 126.6. Row 7 Lead will relay the call.
- When approximately 10 miles from OSH, Bonanza Lead will order the flight to slow to 110 knots indicated. Row 7 Lead will relay the call.
- When OSH Tower clears the flight to land, Bonanza Lead will acknowledge and Row 7 Lead will relay the call.
- Bonanza Tail will call Bonanzas to Oshkosh Clear of all runways.

Those are all the programmed radio calls. If Bonanza Lead changes altitude from 3000 MSL, he will order the flight to ALL change to the new altitude simultaneously. Row 7 Lead will relay the call. Maintain 125 knots indicated, descend at 500 FPM.

- All other radio calls should be traffic calls or critical safety calls, such as: "Sixteen Lead you're on fire" or, "Five Left, your gear is up".
- Do not make obvious calls. If 26 Lead's cabin door is open, he knows it. If there's a seat belt hanging out, there's no need to tell him.
- Do not make "No Factor" traffic calls.
- Traffic calls should be minimum syllables. "Twelve Lead has traffic, 2 o'clock, 2 miles, same altitude, opposite direction." "Twenty Two Right has traffic, 10 o'clock, 1 mile, low, crossing left to right."
- As aircraft are on approach, the frequency might get busy with "Gear down" calls and calls related to a go-around.
- Except for the programmed calls, nobody wants to hear Larry's voice on the radio. If that blabbermouth can keep his finger off the PTT, everybody can.

Read this entire document again. Several times for first-timers. Know your Briefing Forms forward and backward. Much of this material will not be covered again at the Saturday Main Briefing. This is a camping trip and a great social event, but safety of flight issues trump all else. **Know what you are supposed to do, and do it.**

Final thoughts: Check the web site thoroughly. Get ready to have some fun!