

“C2A” – COPA To AirVenture

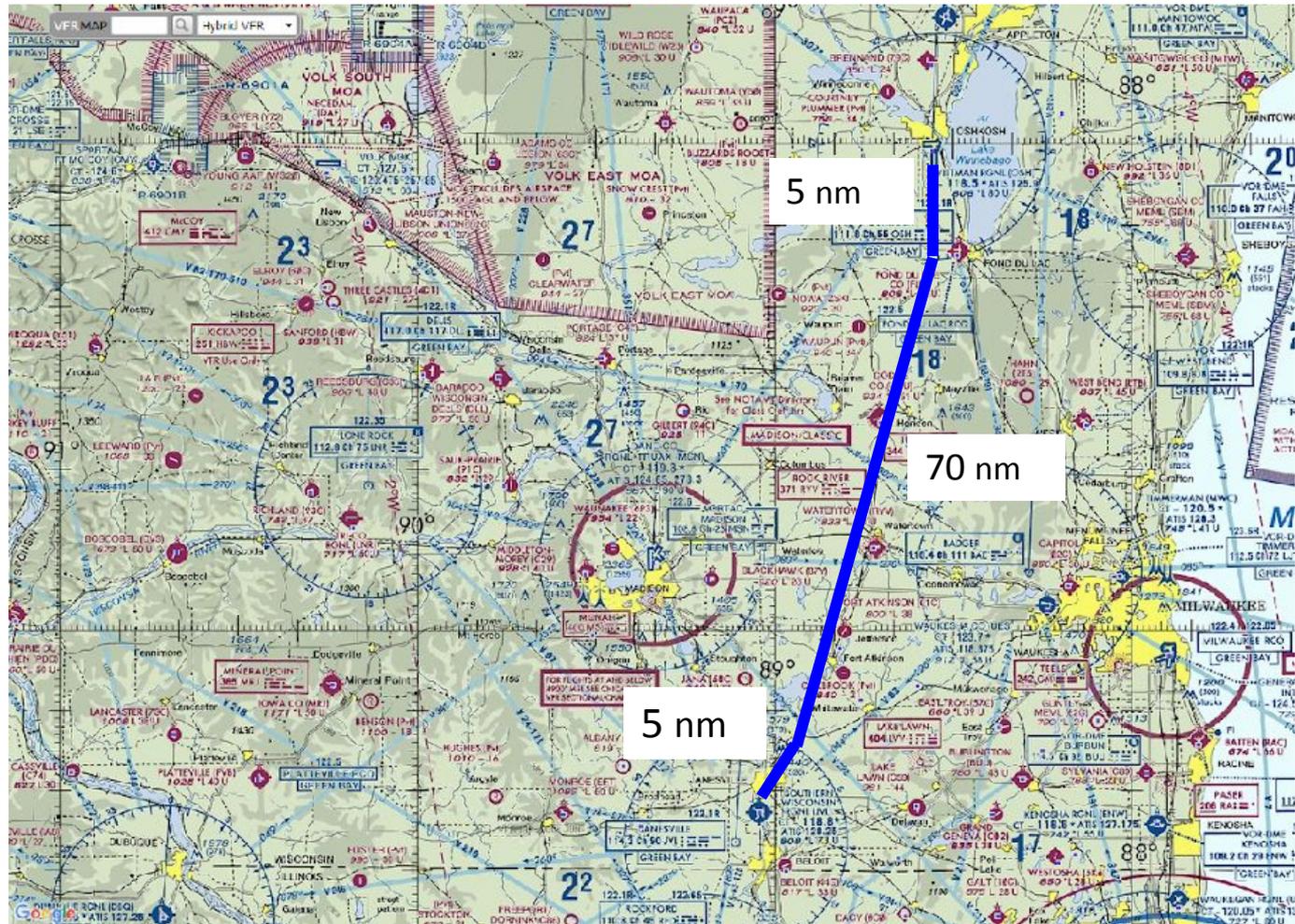
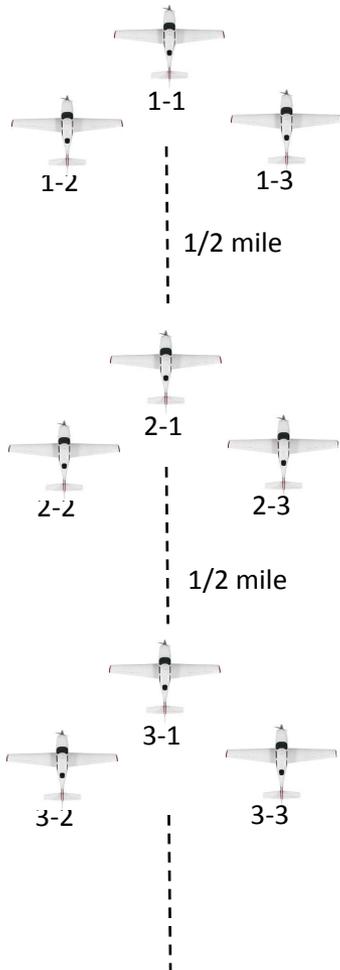


2023



Flight to KOSH

~40 minutes



Leads: Squawk 1200, ADSB ½ mile

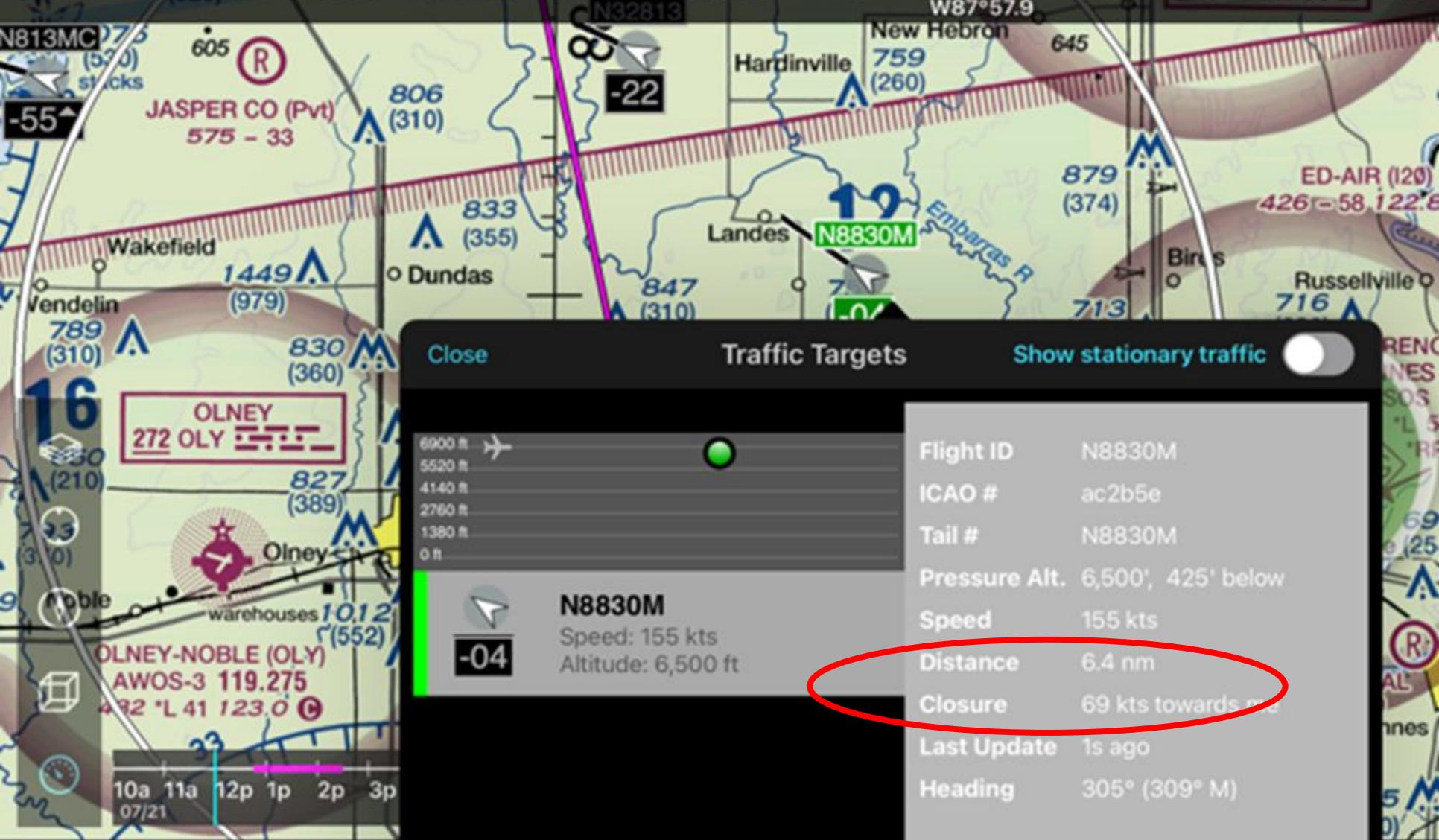
CR = Closure Rate (zero ideal!)



Lead and Tail will get specific codes from FAA

Brq > Wpt NM > Wpt Wpt ETE > Wpt ETE > Land AGL (Ft) VSR (f/m) Position GS (Kts) ETE > Land Clock

351° 235 KJVL 01:31h 01:31h 6,364 ▼57 N38°47.9 W87°57.9 154 01:31h 17:51:18Z



Close Traffic Targets Show stationary traffic

6900 ft	✈️	●	Flight ID	N8830M
5520 ft			ICAO #	ac2b5e
4140 ft			Tail #	N8830M
2760 ft			Pressure Alt.	6,500', 425' below
1380 ft			Speed	155 kts
0 ft			Distance	6.4 nm
			Closure	69 kts towards me
			Last Update	1s ago
			Heading	305° (309° M)

Landing RWY 36 KOSH



Flight Assignments

Subject to Change

Vic	Lead #1	Wing #2	Wing #3
1			
2			
3			
4			
5			
6			
7			
8			
10			
11			

Taxi out, Spontaneous Run-up Once in position
Trail: "Run-up Complete"
Lead: "Flight, Does anyone need more time?"
- Reply ONLY if you need more time



**RWY Line-Up, 150' spacing
10 sec Interval Departures
*Run-up when 2 Vics ahead of you
runs up (look for tail shake)***



Flight Data

- Flaps Up: 1,300' MSL (>80KIAS)
 - “Vic 1, Flaps” (shorter than we normally call, need min talking on TAC)
 - “Vic 2, Flaps” etc...
- Climb Out: 115 KIAS, 600 FPM
- Climb: 2,500' MSL (stack 10' above VIC ahead)
- Trail call “Sausage” when linked up with flight
- Cruise: 120 KIAS (Lead will call speeds several times)
- 1/2 mile separation between VICs
- Lead Calls flaps down for entire flight:
 - “Cirrus Flight, flaps 50 in 3,2,1..” slow from 115 to 100 KIAS
 - “Cirrus Flight, flaps Full in 3,2,1..” slow from 100 to 90 KIAS
- Approach: 90 KIAS



Landing 36L and 36R

C2A Flight Card

Comm Plan

1	Pri Internal	123.25
2	Alt Internal	123.57
3	JVL ATIS	128.25
4	JVL Gnd	121.65
5	JVL Twr	118.8
6	OSH Twr	126.6
7	ALT OSH Twr	118.5
8	OSH ATIS	125.9
9	OSH GND	132.3

Timeline

1200	Lunch
1300	Update (Wx Call)
1350	Engine Start
1410	Taxi & Run up
1415	Take Off
1500	Arrive KOSH
1515	Taxi to Camping
Debrief : 30 min after shutdown	

Reference Speeds (KIAS)

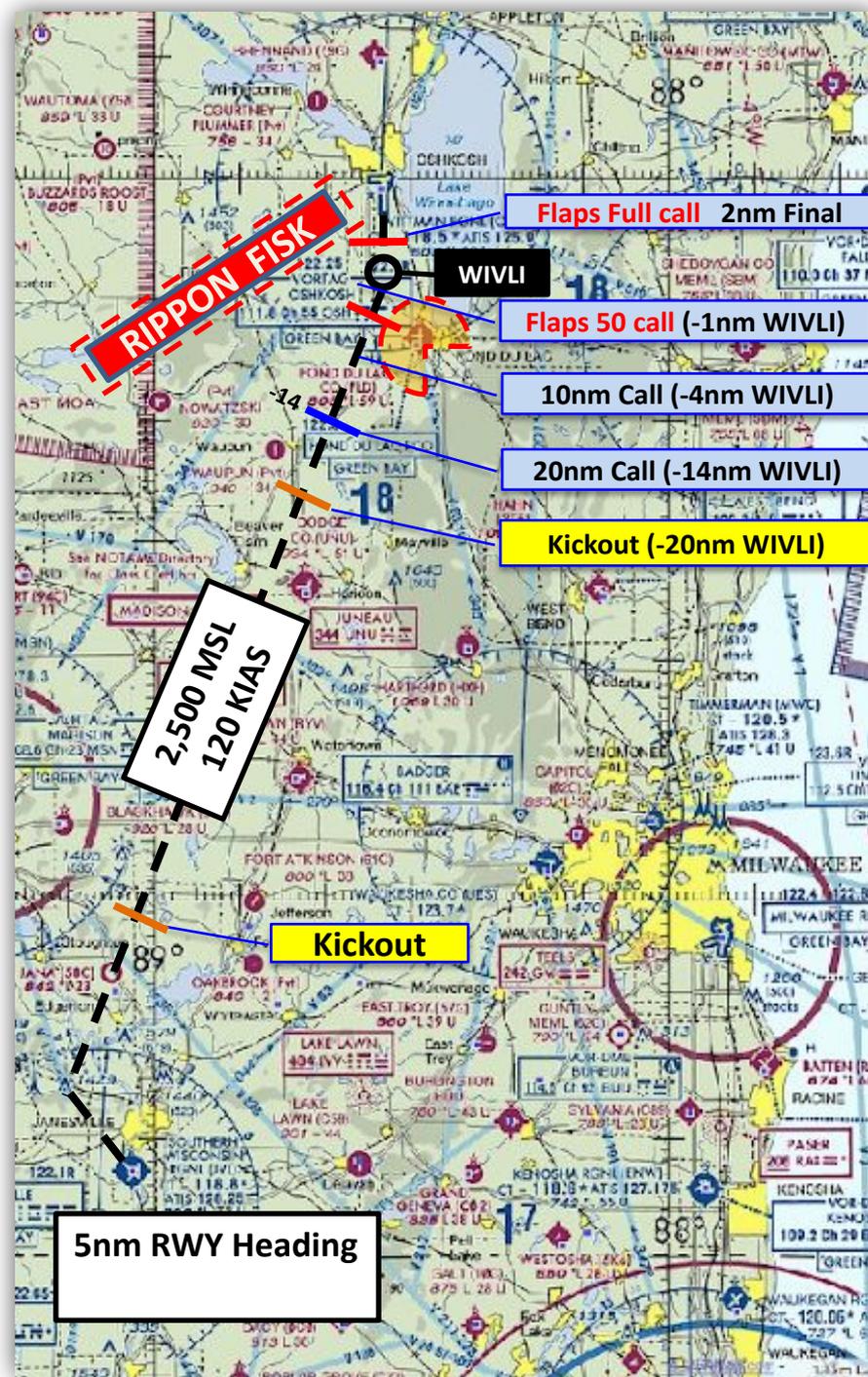
Vr	75	50% Flaps	100
Climb	115	Final (100% Flaps)	90
Cruise	120	T/O Interval	10 sec

Power

Run-up	#1:	#2,3:
T/O Pwr	#1:	As Req'd

ATIS:

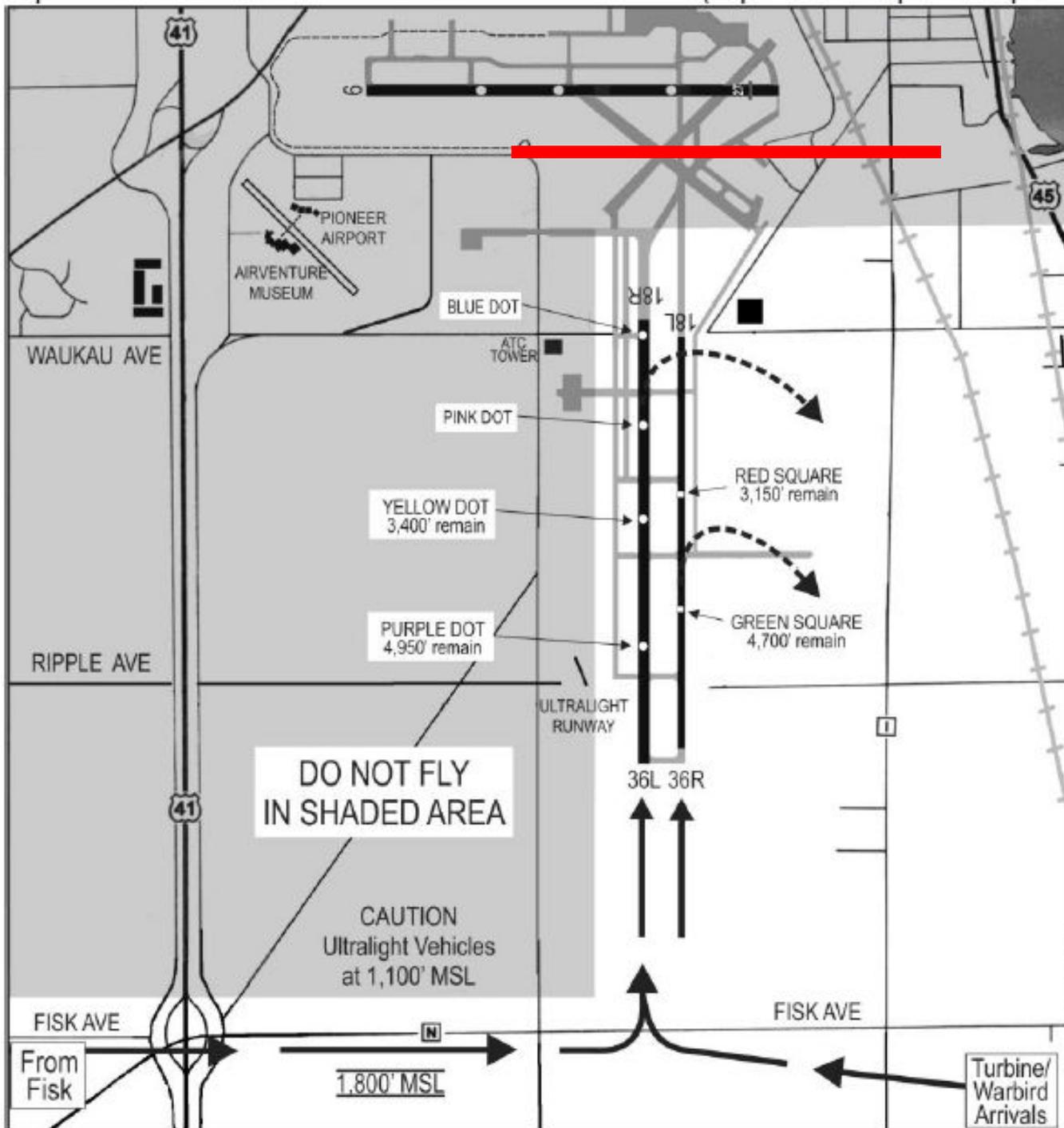
COPA Tail calls [5nm](#) and [Clear of Rwy](#) on tower Freq.



RWY 36L/R Procedures (most likely)

- 3 ship formation with 2 ships landing on RWY 36L and 1 ship landing on RWY 36R (36R is normally a taxiway)
- Cirrus Lead will position the formation for a South straight-in arrival for RWY 36, announcing position at 20NM, 10NM and 5NM.
- All aircraft will do an expedited rollout to the end of the runway and then follow EAA flagman instructions.
- If a Go-Around is required, the affected aircraft must turn right to remain south of the intersection of Runway 13/31 and Runway 5/23. The affected pilot will announce “(call sign) **on the go**” on Tower frequency and depart the pattern on a right downwind and join with Cirrus Tail.





NOT FOR NAVIGATION

Short Final and After Landing

- Cirrus Tail: Call “Cirrus Tail 5nm Final” on 126.6
- Cirrus Tail: Call “Cirrus Tail clear of RWY” 126.6
- Follow Flagman instructions to camping
- Shutdown individually upon arrival parking
- Debrief at Lead’s ACFT (N478SE) shutdown plus 30 min (bathroom breaks etc).

Parties

Sunday

1730-2030 Cirrus Party



Monday

**1700-2000: COPA Dinner
(HGI Hotel)**



Tuesday

1730-1930: C2A BBQ



**COPA TO AIRVENTURE
FORMATION FLIGHT**

C2A Reminders

- Headnod for 'brakes off' is fast
 - #3 may not be able to see, just watch wheels
- Brakes off...Lead waits 2 sec b/f adding power
 - Gives #3 and #2 time to adjust if T/O pwr is off
- Flaps Up Call for JVL Departure Truncated
 - “Vic 4, Flaps” (execute immediately)
- ***Sidestep for turbulence*** (left or right)
- Respond *by exception only* for Ops Check
 - Lead will ask, only respond if you have a problem
- Taxi with full back up elevator, keep the power in.
- **TAC freq is for EMERGENCIES only! Squelch Off** 😞

Contingencies

&

Alternate Landing other
than 36

Contingencies

In General

- **Accept that they will happen, best to be prepared!**
- **Communicate precisely and quickly on Internal frequency:**
 - “Lead, 2-2 has issue...troubleshooting.” “Lead copies.”
 - In ~1 minute, give lead update, how much more time you need / issue resolved etc
 - Lead will determine if delay is acceptable or give guidance/final determination
 - “2-1, 2-3 breaking off formation and RTB KJVL for minor maintenance, no escort req’d”
- **Know how to fly/land in each position - you may have to!**

“Slow is smooth...smooth is fast!”



COPA TO AIRVENTURE
FORMATION FLIGHT

Contingencies

Start to Line Up

- **Maintenance Problem:**
 - Announce to lead with brief detail of problem
 - ~1 min, follow up with lead. Lead makes final decision (flight delay, RTB, FISKE)
 - If you believe you know the solution to the problem, do not jump in on the frequency to give advice! Advise Flight Lead, “Lead, 3-3 has a solution”. Lead may invite you to provide information.
- **If your Vic loses and aircraft to maintenance:**
 - Lose 1 acft in Vic: become a 2 ship element
 - Lose 2 acft in Vic: stay in position as a single ship Vic
- **Mx problem resolved just in time to rejoin flight prior to take off:**
 - Moved to trail, form 2 or 3 ship element. If trail is already 3 acft, become a lone trail.
- **Maintenance issue taxiing or on runway after line up:**
 - Quickly move acft out of the way if able
 - If you have to perform an immediate shutdown, announce to lead, contact FBO for tug
 - Remaining acft must decide...can you get around the AOG acft, or taxi to new runway?



Contingencies

Departure to Link Up

- **Do not to lose the element in front of you!**
 - If you do – use ADSB to find them.
 - If you can't find them on ADSB, announce on Internal: "Vic 6 lost visual on Vic 5"
 - Vic 5 give distance to WIVLI
- **If you do go "Blind" announce it:**
 - "3-2 is blind"
 - If you regain visual, announce it: "3-2 has visual on 3-1, *3-1 rock wings to confirm.*"
 - Take off and the ONE turn we make are the most likely spots to go blind



Contingencies

Flight to OSH

- **Aircraft incident/accident: (touch wings, etc):**
 - Announce
 - If able, exit flight at 45 degree angle and descend 200' until clear
 - Trail assists (Alex W) with any/all emergencies (if it's trail, closest wing will assist)
 - Rest of the flight keep going
- **If you think you have an issue as a solo pilot – ask for a kickout.**
- **Lost comms = stay in flight. If lead, relinquish lead to wingman with hand signals. Reform VIC as required.**



Contingencies

Flight to OSH

- **Overtaking VIC/Element in front of you while en route:**
 - Maneuver element to right or left side of formation
 - Slowly adjust spacing
- **Spacing adjustments:**
 - Very slow (3-5kt adjustments)



Contingencies

Landing at OSH

- **Go around for any reason:**
 - Fly the plane first!
 - Announce go around on OSH Tower freq – use your tail number
 - Whole Vic or Element: “Cirrus 8SE, flight of 3, going around” 126.6.
 - Accelerate to 100kts, positive climb, Lead call flaps, *then* execute turn
 - Fall in trail, trail aircraft will help identify his position as required (comms or visual wing rock)
 - If you are #3 and already took spacing for 36R (short final) and in position for single ship landing with no spacing issues, you may continue to land.
 - **If you have to go around on a 3+ mile final, no need to announce on Tower freq (internal only)**
- **Deceleration below 80kts required for spacing on short final:**
 - Element go around!
- **You land short, or brake hard by accident:**
 - Exit to sod
- **Aircraft in front of you looks to be landing short or not rolling out:**
 - Go Around!



Most Likely Contingencies

1. Maintenance Problem during run-up or taxi
2. Deceleration below 80kts required for spacing on short final

Avoid the Slinky Effect...

“Slow is Smooth, Smooth is Fast!”



COPA TO AIRVENTURE
FORMATION FLIGHT

Runway change from 36 to any other while enroute

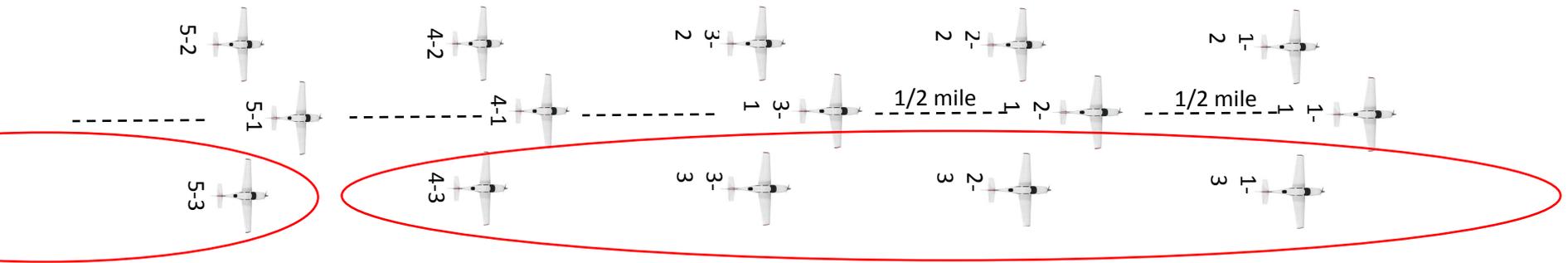
- Reform into Elements in flight!
- This is new....and we will rehearse it at JVL.

If we are assigned Rwy 27/18 on the phone BEFORE departing JVL, we will reform on the ground into 2 ship elements

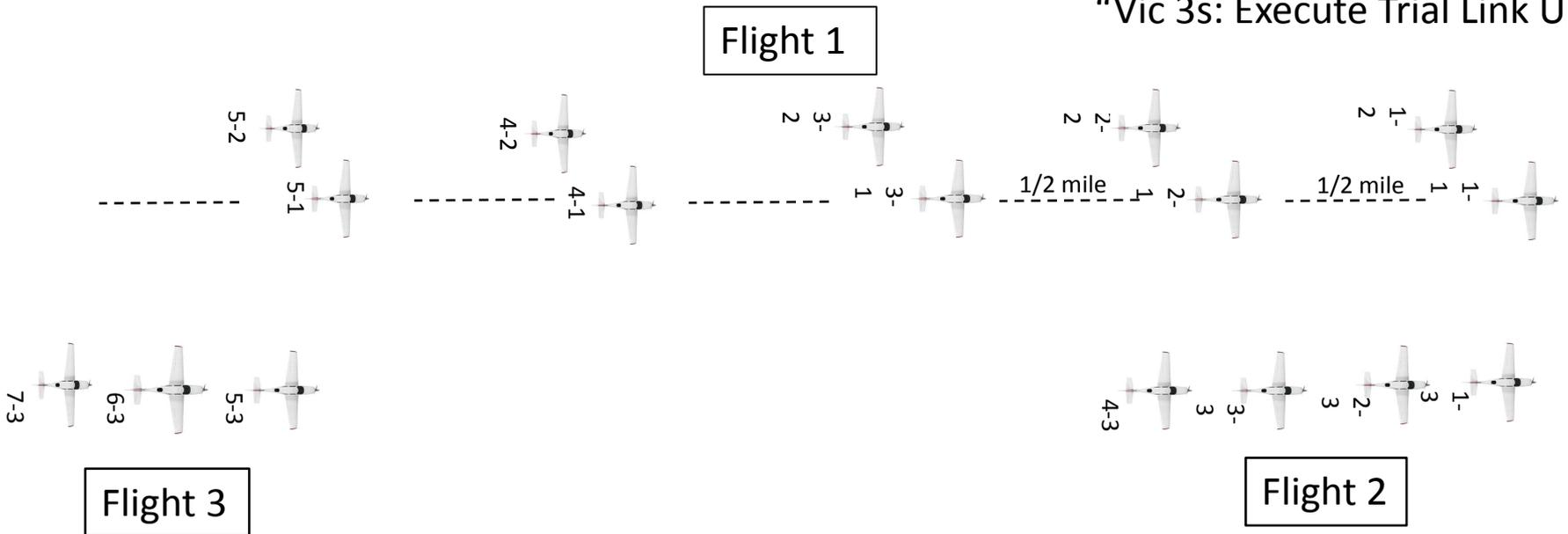


Reform to Elements

- The “3” aircraft will break out and form up two separate flights in trail formation

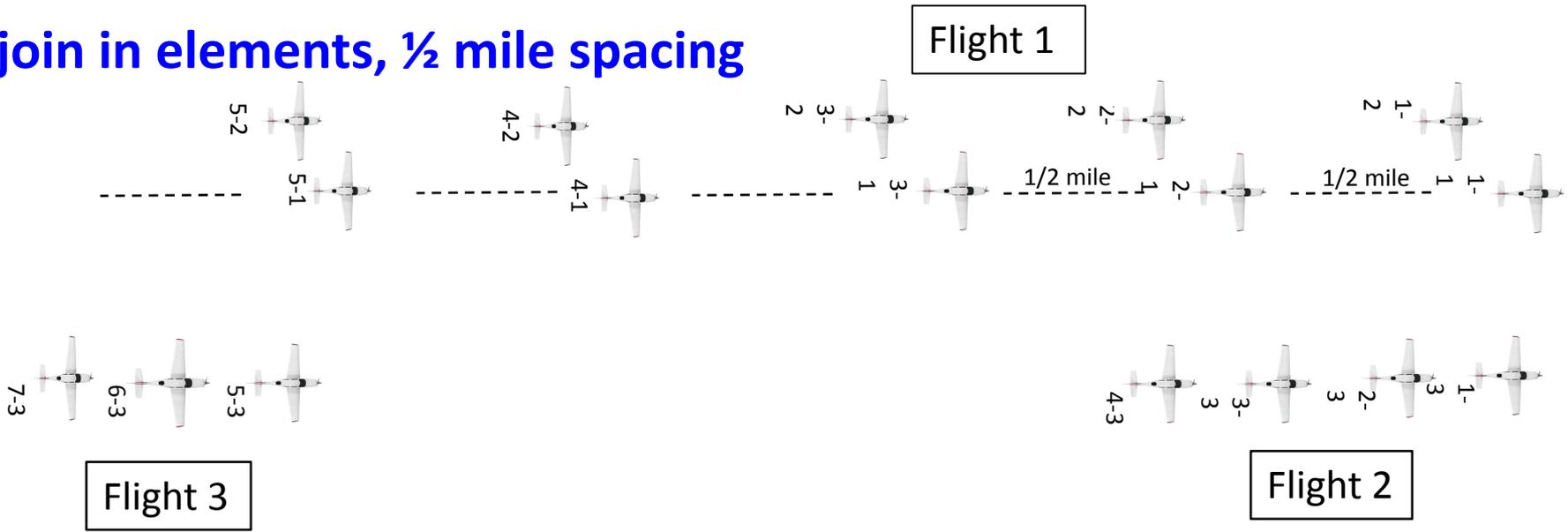


“Vic 3s: Execute Trial Link Up”



Reform to Elements

Rejoin in elements, 1/2 mile spacing



Flight 3

Flight 2



Flight 2 goes first

Loose Trail

After "Sausage"

"Flight 2: Take element positions"

RWY 18R Procedures (2nd preference)

- 2 ship elements.
- Cirrus Lead will position the formation for a North straight-in arrival for 18R, announcing position at 20NM, 10NM and 5NM.
- All aircraft landing on 18R must land on or beyond the Blue Dot
- Maintain 1,500' MSL until past RWY 9/27 (**NOTAM words, judgement will be utilized for a safe approach angle**).
- Aircraft landing on the right side of 18R will exit on the right on Taxiway P5. Aircraft landing on the left side of 18R will exit to the left on Taxiway A5.
- If a go around is required, the affected pilot will announce “(call sign) **on the go**” on Tower frequency, turn left at the departure end of 18R, depart the pattern on a left downwind and join with COPA Tail.



Rwy 27 Procedures (rarely assigned)

- 2 ship elements.
- Cirrus Lead will position the formation for a East straight-in arrival for Rwy 27, announcing position at 20NM, 10NM and 5NM.
- All aircraft landing on Rwy 27 must land on or beyond the Orange Dot.
- Aircraft landing on the right side of Rwy 27 will exit on the right. Aircraft landing on the left side of Rwy 27 will exit to the left.
- If a go around is required, the affected pilot will announce “(call sign) **on the go**”, turn right, depart the pattern on a right downwind and join with COPA Tail.

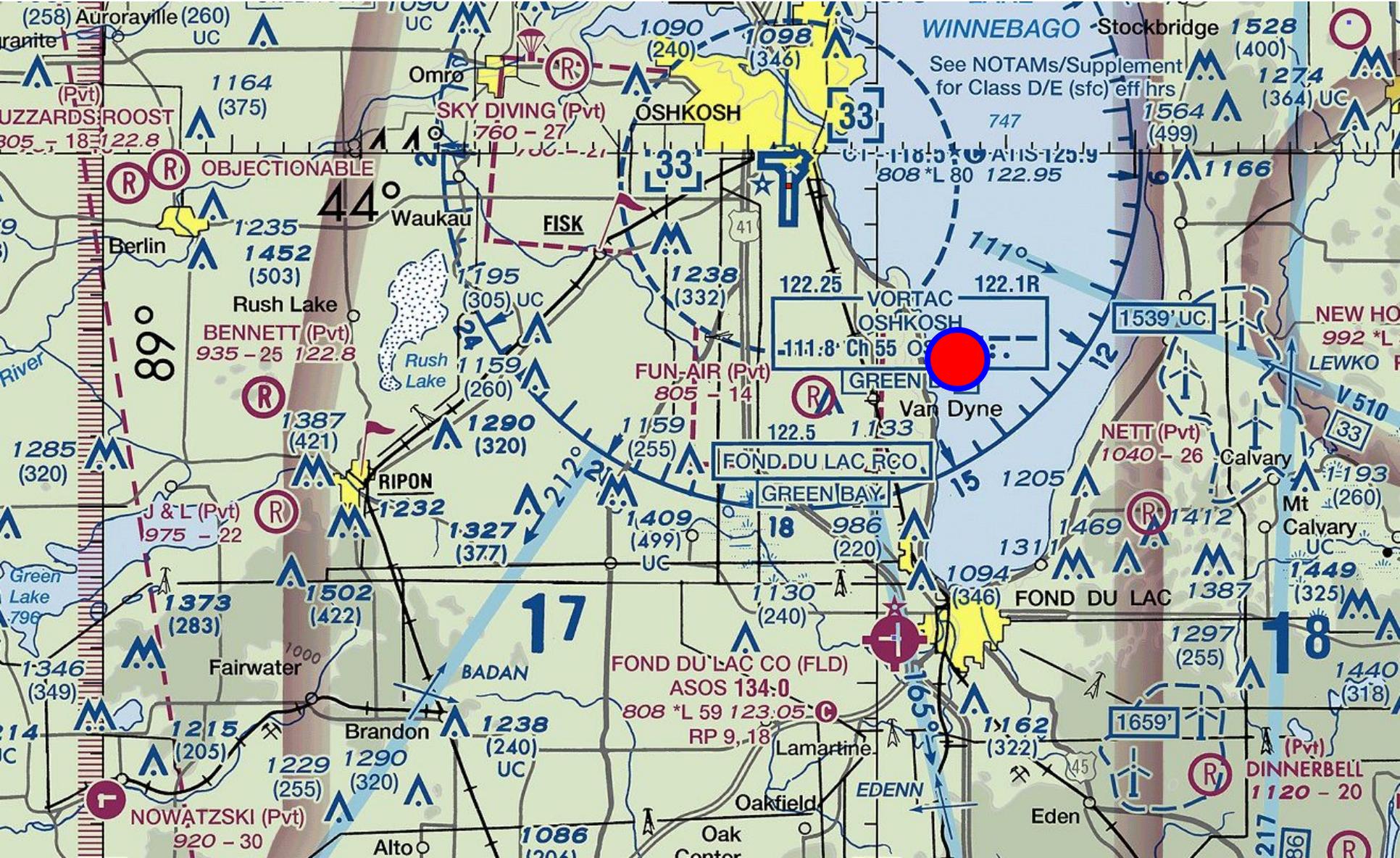
Rwy 9 Procedures (rarely assigned)

- 2 ship elements.
- Cirrus Lead will position the formation for a West straight-in arrival for Rwy 9, announcing position at 20NM, 10NM and 5NM.
- Aircraft landing on the right side of Rwy 9 will exit on the right. Aircraft landing on the left side of Rwy 9 will exit to the left.
- If a go around is required, the affected pilot will announce “(call sign) **on the go**” on Tower frequency, turn left, depart the pattern on a left downwind and join with COPA Tail.



Warbird Island

Be alert for high performance turbojets, twin turboprops and Warbirds operating about 5 NM north of KFDL



Landing Position



Not as low as cruise

Wing Lined up with Tail

Big Gap

Hand/Visual signals



OK



Run It Up



Understood or NOW

Hand/Visual signals



Cross Under #2



Can't Receive



Can't Transmit



When the Unforeseen Happens

- Fly the plane first!
- Follow ATC instructions.

Starr Insurance Companies is an important sponsor of C2A and our mass arrival into AirVenture.

STARR

INSURANCE COMPANIES

Propelling your business skyward

Whether it's jetting across continents or soaring beyond the stratosphere, Starr Aviation's team of experts understands the industry's constantly changing risk environment, and develops customized property & casualty insurance plans that catalyze the success of organizations and their people.

Starr Insurance Companies is a worldwide leader in aviation insurance solutions, tailored to meet the unique needs of the aviation and aerospace industry.

For further information, please contact Jim Anderson

jim.anderson@starrcompanies.com

Sponsors

GARMIN.



ASPEN
AVIONICS™

ICOM



ForeFlight
Intelligent Apps for Pilots™

 CloudAhoy
debriefing for pilots



Questions?

Flight	Lead #1	Wing #2
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		

2 Ship Elements: TBD