

Rally Crew Handbook (POH)

Crew	Number:	

Pilot □ Copilot □

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INTRODUCTION

Welcome to 50th Annual Hayward Air Rally! This event will test your piloting skills and knowledge of your aircraft. By this time, your aircraft should be parked in the impound area, fueling completed, prohibited cockpit equipment disabled, and your rally numbers affixed to the airplane. You should already be checked in at the registration table and have all your paperwork completed with the check-in volunteers.

A formal mandatory course briefing will be conducted on Wednesday, July 23 at 4:00 PM. The briefing is held in the same hangar where the registration desk is located. A "quick brief" is conducted first for returning racers to highlight procedural changes from the previous year. We recommend 'first-time Hayward racers' sit towards the front of the briefing area so the briefer can more easily answer all your questions.

For those staying overnight at the Hayward Airport La Quinta Inn, courtesy transportation is available – please ask any race official or ramp volunteer for directions. Please take everything from the airplane you might need overnight, as you will not be allowed to return to the airplane after impound until Thursday morning.

In addition to your flight planning gear, you should bring the following paper or electronic charts to the briefing:

San Francisco Sectional – 92 nd edition, dated 03/06/14
San Francisco Terminal Area – 84^{th} edition, $03/06/14$
Klamath Falls Sectional – 90 th edition, 04/03/14
Las Vegas Sectional – 91st edition, 03/06/14
Salt Lake City Sectional - 91st edition, 04/03/14
Salt Lake City Terminal Area - 50 th edition, 04/03/14

Chart list continues on next page.

- ☐ Cheyenne Sectional Chart 90th edition, *07/24/14*
- ☐ Omaha Sectional 90th edition, *07/24/14*
- ☐ Twin Cities Sectional 88th edition, 06/26/14
- ☐ Minneapolis/St. Paul Terminal Area 82nd edition, 06/26/14
- ☐ Chicago Sectional 88th edition, 05/01/14
- ☐ Green Bay Sectional 88th edition, 05/29/14

Equivalent coverage World Aeronautical Charts may be used if desired.

- □ CG-18 44th edition, dated 06/26/2014
- □ CF-16 43rd edition, 01/09/2014
- □ CF-17 44th edition, *07/24/14*
- □ CF-18 43rd edition, 10/27/13

Please note charts indicated with ** will become valid on the first day of the Rally competition, and the previous edition of each is considered out-of-date on July 24.



HAYWARD ACTIVITY SCHEDULE

Δ11 times PDT

	sday, Jul	y 23
		500 Impound and check-in. 500 Complimentary lunch available at tion.
	1600	MANDATORY COURSE BRIEFING
same by you hav prefligh	uilding and we alread	neld in the Airport Maintenance Hangar, in the nd adjacent to the registration check-in desk. If y received your course POH, you may start your ng prior to the briefing.

Supplemental weather briefing and course update. Crew photos – at planeside. 0700

Coffee and snacks in the briefing hangar.

0800 First aircraft departs – weather permitting.

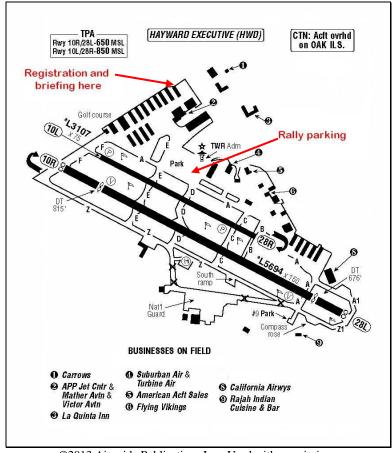
With the exception of crew photos, you must be at your aircraft 30 minutes before the first launch (0730) with your preflight estimates completed on the official race forms. A rally official will pick up your estimates at that time. You will be signaled to start your engine(s) shortly thereafter; the exact launch sequence and approximate times are discussed in Wednesday's briefing.

Be ready to go on time or you will be penalized and started last. There is no penalty for engine starting difficulties or other maintenance-related problems, but you will be started after all the others.

0600

0615

HAYWARD AIRPORT DIAGRAM



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COMMITTEE MEMBERS AND VOLUNTEERS

So that you may easily recognize Committee Members and Rally Officials, they will be wearing nametags with red streamers.

2014 Hayward Air Rally Committee

Supreme Arbiter of Inane Discussions: Chris Verbil **Treasurer:** Tom Neale (R-71) **Secretary:** Vacant Jenny Donnelley Registrar: **Publicity Guys®:** Mike Citro (R-5) Gil Takemori (R-99)

Cheryl Knight

Webmaster: Tom Neale 99s Liaison: Lynne Allen

Genny Solorio Tim Huckabay **EAA Liaison:** Ferdinand Magellan **Course Design:**

Hayward Ramp Operations: Jenny Donnelly **Hayward Impound:** Kim Purcell (R-8) **Silver Springs Ramp Operations:** Cheryl Knight

Wendover Ramp Operations: Steve and Lynne Allen

Rapid City Ramp Operations: Ray Hazel **Madison Ramp Operations:** Steve Verbil

Volunteers

Sponsors:

Hayward Impound: Rob Kirkpatrick (R-8)

Chris Lea

Registration and Check-in: Judy Barker

Andy McCarthy Billie Sposeto

Carl LaRue

Photographer: Rally Artwork: Tim Purcell **Scoring Software:** Mike Byrne **Ramp Start Official:** Allison Verbil **Hayward Departure Timers:** Alameda County 99s Scholarship Recipients and Honorary Flag Timers Aidan Cameron-Smith (HWD)
Richard Frewert, Jr. (SPZ)
Enrique Trujillo (ENV)
Nathan Womack (LND)
Aspen Eatherton (RAP)
Joshua Hoernemann (MVE)
Eric Sabol (MSN)

Silver Springs Ramp Crew: Cheryl Knight, Lead

Ron Bell Jean Starr Moe Makowski Karen Spencer Robert William Dale Brown Ed Goldberg

Silver Springs 'Sky Control'Sky SarosiCheckpoint 'Winnie' Timer:Lynne AllenWendover Ramp Crew:Steve Allen, Lead

Richard Brown Char Keith Lori Palafox Moses Prieto Jen Monday James Morris Alan Rowley

(Civil Air Patrol, Alan Rowley Wendover Composite Squadron) Jayden Morris

Vanessa De Jesus Ricardo De Jesus AnneMarie Darrington

Jeffrey Yadon
Estephanie Cerros
Moises Aboite

Jorge Badillo Jaden Cook Gunnar Carter

Brigham City Fuel Official (EAA 58): Frederick Kluss
Checkpoint 'Wind River' Timers: Dennis Cook
Ray Snyder

Lander Ramp Crew: Jeff Kimber, Lead
(EAA Chapter 1020) John Larson

Tim Martell

Lander Ramp Crew (continued): Tom Reedy

(EAA Chapter 1020) Dick Rodgers

Sam Rodgers Jay Taylor

Lander Departure Timer: Bob Townsend

Dennis Vogler

Checkpoint 'BUFF' Timer: Jason Eatherington **Rapid City Ramp Crew:** Ray Hazel, Lead

(EAA Chapter 39) Darrel Sauder

Mike Harmon

Bruce Bowen

Gary Telkamp

Norma Kraemer Dan Benkert

Patrick Ealy

Rapid City Departure Timers: Jon Glasford

Harold Samdal

Pierre Fuel Official: Mustang Aviation (FBO)

Checkpoint 'Omega' Timer: Dylan Dirksen

Marilyn Fountain

Montevideo Ramp Crew: Sue Clark, Lead (EAA Chapter 688)

Travis Anderson Darrell Augeson

Robert Tisher

Dan Dirksen

Lynn Hagen

David Holzheimer

Becky Holzheimer

Floyd Kanten

Waunita Kanten

Gerald Kleene

Karen Kleene

Victor Plante

Marsha Plante

Wyatt Plante

Andy Stauffer

Bill Weinhold

John Wollenberg

Montevideo Departure Timers: Amber Baldy

Cindy Hagen

Albert Lea Fuel Official (EAA 12): Steve Bonine

Checkpoint 'Paul' Timers: Dan Coyne Madison Ramp Crew: Steve Verbil, Lead

(Capitol City Flyers)

Jim Stimmell (R-4)

Colin Maitland

Mick Kindley

Dan Silvers Rhonda Khabir Kent Elliott

Bob Davidson

Oshkosh Wittman Field Logistics:

Hayward Executive Airport Manager:

Douglas McNeeley

Tom Panico
Kay Bennett

Wendover Airport Director: James Peterson

APP Jet Center, General Manager:

Silver Springs Airport Manager:

Lander Hunt Field Airport andGary LooseWind River Aviation Manager:Gary LooseRapid City Regional Airport Director:Cameron Humphres

WestJet Air Center, CEO: Don Rydstrom Montevideo-Chippewa County

Airport and Borgerson Aviation: Mark Borgerson

Dane County Regional Airport,
Director of Operations:
Wisconsin Aviation, General Manager

Jeff Davis

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Phoenix, AZ www.thomasrepro.com

EVENT CONTACT INFORMATION (DAY 0-1)

Hayward Impound:	Until 1800 only: (925) 518-3539
	After hours: (510) 385-1104
Event Chairman:	(408) 757-3426
APP Jet Center FBO:	(510) 259-1347
Suburban Aircraft MX:	(510) 780-0428
LaQuinta Inn HWD:	(510) 732-6300
Prescott FSS:	122.5 via Oakland Radio
Rancho Radio:	
Reno Radio:	122.25 in Tahoe Area
	122.2 in Reno area
	122.6 in Elko area
Silver Spgs Ramp Lead:	(530) 941-5481
Silver Springs FBO:	(775) 577-2111
Wendover Ramp Lead:	(510) 967-3551
Wendover FBO:	(435) 665-2308
Montego Bay Resort:	(800) 217-0049

FBO Information:

HWD APP Jet Center LLC (Shell, 510-259-1347, ARINC 129.725): Accepts Shell Aviation Card, Visa, MasterCard, American Express, Discover, Multiservice, Avcard, cash. No personal checks.

SPZ Silver Springs Airport LLC (Epic, 775-577-2111, Unicom 122.9): Accepts Visa, MasterCard, American Express, Discover, AvCard, Multiservice. No cash or personal checks.

ENV Wendover Airport (Avfuel, 435-665-2308, Unicom 122.8): Accepts Visa, MasterCard, American Express, Discover, Multiservice, Avcard, cash. No personal checks.

RADIO PROCEDURES

During your flight while not monitoring ATC where required, please use the air-to-air frequency of **122.75**.

Use this frequency to let other rally pilots know your intentions, particularly in the vicinity of any checkpoint.

AIR-TO-AIR FREQUENCY ** 122.75 **

As detailed in the AIM, keep in mind that the use of air-to-air frequencies are for all authorized users. Other pilots, who are not in the rally, will be using the frequency on a shared basis much like Unicom.

Let other rally pilots know where you are and what you intend to do – position, altitude, and direction of turns are especially important.

Example "Race Two Zero is approaching Podunk at 3,500."

All turns around checkpoints should be made to the LEFT (counterclockwise). Be sure to announce on the air-to-air frequency that you are circling the checkpoint.

Example "Race Two Zero is over Hooterville checkpoint at 7,500, making left turns."

While communicating with Hayward Tower, Rapid City Tower, Madison Approach or Tower, USE YOUR RACE NUMBER. This will alert controllers for special handling.

Example "Hayward Tower, Race Two Zero inbound for landing."

If you call Center, FSS, Flight Watch, or any other agency while enroute use your "N" number. Only ATC facilities directly involved with the Air Rally will know anything about your race number.

FLIGHT PLAN PROCEDURES

A standard VFR Flight Plan will be filed each day based on the information provided by you on your entry application. This Flight Plan has absolutely nothing to do with the rally scoring. It is simply a VFR Flight Plan that the committee files and opens on your behalf.

The rally committee will file and activate this Flight Plan for you at each morning departure. Your ETE is calculated by using your pre-flight estimate from your entry application, and adding a two-hour "pad". You will receive a copy of the group flight plan before departure – it is your responsibility to update FSS if you need more time than filed.

If your flight lasts longer than planned total enroute time, you must amend your plan through standard FSS procedures. Use your "N" number to discuss your flight plan with Flight Service.

Upon arrival at each day's final destination, you should close your FAA VFR Flight Plan through normal methods.

HWD-ENV FLIGHT PLAN TIME CALCULATOR

Hayward Takeoff Time		PDT
+ ETE from Group Flight Plan	+	
+ Time Zone Correction	+	one hour
= Your Flight Plan ETA to ENV	=	MDT

Add +7 hours for UTC (Pacific) Add +6 hours for UTC (Mountain)

RALLY SCORING

These procedures detailed here are for the two legs of day one (HWD-SPZ-ENV) but work similarly for day two (SPZ-LND-RAP) and day three (RAP-MVE-MSN). Please contact a rally official if you have specific scoring questions not answered here.

HAYWARD – SILVER SPRINGS TIME ESTIMATE

This is your estimate of elapsed time from the start of the takeoff roll at Hayward, to overhead the 'Tiger' timing line near Silver Springs. This estimate will include your time necessary to fly to all the required checkpoints prior to crossing the timing line.

SILVER SPRINGS – WENDOVER TIME ESTIMATE

This is your estimate of elapsed time from passing the timer's table on the takeoff roll at Silver Springs, to overhead the 'Winnie' timing line near Wendover. This estimate will include your time necessary to fly to all the required checkpoints prior to crossing the timing line.

BONUS CHECKPOINT 1/2 TIME ESTIMATE

This is the elapsed time estimate from the start of the takeoff roll at the departure airport, to overhead the bonus checkpoint coordinates. The crew is required to pass within 2.0 nautical miles of the bonus checkpoint; time of arrival is captured at the closest point of approach.

HAYWARD – SILVER SPRINGS FUEL ESTIMATE

This is your estimate of fuel that you will use on the first leg of the race. It should include the fuel you burn for engine start, taxi, run-up, take-off and climb, all the enroute portion, flight from 'Tiger' timing line to the Silver Springs airport, VFR pattern, landing, taxi, and engine shut down at the rally ramp. Runway 23 is the expected runway for arrival at SPZ.

SILVER SPRINGS – WENDOVER FUEL ESTIMATE

This is your estimate of fuel that you will use on the second leg of the first day. It should include the fuel you burn for engine start, taxi, run-up, take-off and climb, all the enroute portion, flight from 'Winnie' timing line to the Wendover airport, VFR pattern, landing, taxi, and engine shut down at the race ramp. Runway 30 is the anticipated runway for landing at ENV.

ADJUSTMENTS

Adjustments to fuel estimates may be made if you are vectored or forced to deviate from your planned route by ATC, for safety reasons, or are forced to do a go-around at the arrival airport. Race officials refer to these optional fuel adjustments as a "fuel vector".

If you require a fuel vector adjustment, you must notify a ramp official <u>before</u> you start to refuel, or the fuel vector will be disallowed.



SCORING - PENALTY POINTS

Time scoring:

- **Traditional Class:** One (1) point per second penalty, deviation from estimated time.
- **Digital Class:** Three (3) points per second penalty, deviation from estimated time.

Fuel scoring:

- **Traditional:** Penalty points accrue at the rate of three (3) points for each one tenth of one percent (0.1%) difference in actual fuel used, as compared to your pre-flight leg fuel estimate.
- **Digital:** Six (6) penalty points for each 0.1% fuel estimate error.

Additional penalty points are assigned for the following infractions:

Not ready for morning engine starts at assigned time	100 points
Misidentification of a mandatory checkpoint	250 points
Orbiting within sight of airborne timing lines	
for any reason	300 points

Disqualification may occur for any of the following reasons:

Failure to cross any timing point.

Refueling without a rally official present.

Refueling without the truck/pump fuel meter covered.

Wearing black socks with shorts.

Justin Bieber music loaded on any personal audio device.

In addition, an aircraft may be disqualified or penalty points may be assigned at the discretion of the Rally Committee for infractions such as violation of Class "B" or "C" airspace, Restricted Areas, hazardous flight practices, or other known violations of FARs.

All the penalty points for fuel, time, checkpoints, and any other infractions are totaled for each leg, then added together for a cumulative score. The lowest total score determines the rally winner and order of finish.

Please consult the official Air Rally rules, available on the web site (www.hwdairrally.org), for more information on how the race is scored.

ABOUT THE RALLY SCORING FORM

Included in your crew kit are three scoring forms, each consisting of three pages, titled "Fuel and Time Estimate Log".

These procedures detailed here are for the two legs of day one (HWD-SPZ-ENV) but work similarly for day two (SPZ-LND-RAP) and day three (RAP-MVE-MSN). Please contact a rally official if you have questions about the scoring forms not answered here.

Please note, starting at the bottom of the form:

- 1. TIME AND FUEL ESTIMATES complete this section with your estimates on Thursday morning. It will be picked up by a ramp official just prior to your departure. The rally official will take the bottom segment of the white copy only.
- **2. SILVER SPRINGS FUEL** Silver Springs ramp officials will enter the amount of fuel as shown by the truck meter, any fuel vector adjustments declared, and a fuel truck calibration factor.

The self-serve fuel island and the fuel truck at Silver Springs are calibrated to ensure the quantity dispensed is reliable and consistent across all pumps. The calibration factor is a numerical value obtained after a meter-measured amount of fuel is dispensed into a container of very precise, known volume. The fuel pump meter amount is multiplied by the calibration factor, which results in a fuel total for scoring.

After you sign this section, the rally official will take just the Silver Springs segment of the top white copy only.

- **3. WENDOVER FUEL** Wendover ramp officials will enter the amount of fuel as shown by the truck meter, fuel vector adjustments, and any fuel truck calibration factor. The same fuel truck calibration procedure is used at all rally airports.
- **4. CHECKPOINTS -** During the rally, you will be flying over the mandatory checkpoints listed in this Rally Course POH. At each checkpoint, you will select the correct answer for a question about that checkpoint. After you complete the checkpoint questions and sign this section, the official will check to see that any instruments disabled at Hayward impound are still in that condition.

New for 2014, some mandatory checkpoints are scored via information captured from the required GPS data loggers. These GPS-scored checkpoints are identified as such in the route procedures, and will indicate a required 'navigation accuracy' standard to be met by the crew.

Returning in 2014 is a 'bonus checkpoint' available on each leg. Such bonus checkpoints are optional, and the pilot/crew may individually decide whether or not they want to attempt that checkpoint. If a crew decides to attempt the checkpoint, they must declare their ETE (estimated time enroute) from the start of takeoff roll to overhead the bonus checkpoint. This 'bonus point ETE' will be turned in by the crew with their preflight estimates. If the aircraft arrives overhead the bonus checkpoint at the ETE, as measured to the nearest second, 20 bonus points are awarded which will reduce your total penalty point total. One second early or late, will result in 19 bonus points; two seconds early or late will result in 18 bonus points; continuing to 19 seconds early or late will result in one bonus point. At 20 seconds or more early or late, no bonus points are awarded. Unlike the mandatory checkpoints, no penalty points are accumulated if the bonus checkpoint is missed or not used.

After all required checkpoint answers are entered on your scoring sheet, refueling entries and signatures are completed, the ramp official will then remove the remaining portions of the white and yellow copies.

You will have the complete last pink page of the scoring form for your records. **Please bring your copy to the hotel**, as it contains all the information pertinent to your score. In the event of incomplete records on the course, the official scorers may ask you for your copy after any rally leg is complete.



GENERAL CHECKPOINT INFORMATION

All checkpoints have been visually previewed and photographed from the air at an altitude of at least 1,500 feet AGL.

Your crew kit contains a multi-part "Fuel and Time Estimate Log" that requires an answer for a question about each checkpoint. You should select what you believe is the correct response for each checkpoint question.

If you feel that none of the answers are correct, take written notes of what you do see from the air. If the rally scorers can determine from your answer that you were over the checkpoint, credit will be awarded. Sometimes checkpoints do change from the time the course is designed until the day the rally is flown; if a majority of pilots miss or challenge a checkpoint question it will be considered for removal from the scoring process.

CAUTION

Due to different cruise speeds of rally aircraft, ground tracks inbound to the checkpoints, and altitudes flown – traffic can be hazardous over checkpoints as aircraft converge.

Monitor the air-to-air frequency of 122.75 particularly in the vicinity of checkpoints. Broadcast your position and altitude when approaching, over, and departing a checkpoint.

If for any reason you must leave the rally due to mechanical difficulties or other problems, close or modify your flight plan with the nearest FSS. Try to notify another rally aircraft of your intentions so that information can be relayed to the Rally Committee. Crews receiving information about an airplane dropping out of the rally should report it to the officials at the next timing point, and to the ramp officials at the next airport of landing.



Checkpoint diagrams and information are placed in this Rally Course POH in the correct flight order. Latitude and longitude coordinates are provided to assist you in locating each checkpoint on your aeronautical charts.

Descriptions of certain area features are included where it may be beneficial for safety or to avoid possible confusion about checkpoint identity.

All features indicated on the checkpoint description are clearly visible from 1,500 feet AGL and above.

Within the limitations of the FARs and procedures specified in the AIM, *pilots may cross the mandatory visual checkpoints at an altitude and heading of their choosing*, but any suggested overflight altitudes and magnetic headings are stated for safety reasons. *For the airborne arrival timing lines, mandatory crossing altitudes are specified* so timing officials on the ground can easily identify your aircraft, however the final altitude choice is always up to the pilot in command.

Diagrams in this document are NOT TO SCALE.

Safety in the air is up to you – the pilot. If any checkpoint becomes, in your opinion, unsafe due to weather or other factors which may obscure terrain or an area where a checkpoint may be located, use your discretion. If you decide to bypass a checkpoint, note your reasons and submit it with your rally scoring sheet. The official scorers will decide the validity of your action by comparing it to the procedures used by other aircraft in the same vicinity at the same time.

EXERCISE EXTREME CAUTION IN THE VICINITY OF CHECKPOINTS. ANNOUNCE YOUR POSITION, ALTITUDE, AND INTENTIONS ON THE AIR-TO-AIR FREQUENCY OF 122.75.

OPTIONAL REFUELING STOP PROCEDURES

Brigham City, UT (KBMC)

- 1. After <deleted> checkpoint, proceed overhead BMC airport at an altitude higher than pattern (suggest 5800' MSL or above).
- 2. Clock stops overhead BMC coordinates as listed in A/FD (midpoint of runway).
- 3. Descend in proper pattern, land.
- 4. Leave GPS logger running.
- 5. Get fuel at Airmotive Service FBO, self-service pump only.
- 6. Refueling is supervised and pump is covered.
- 7. You must refuel to full or tabs, based on previously declared fuel load.
- 8. Make sure your refueling paperwork is signed by the rally official or FBO designate.
- 9. Depart on your own release.
- 10. Proceed direct to <deleted> checkpoint.
- 11. Clock restarts at closest point of approach (CPA) to <deleted>.

Pierre, SD (KPIR)

- 1. Cross <deleted> checkpoint; clock stops at CPA.
- 2. Descend, land.
- 3. Leave GPS logger running.
- 4. Get fuel at Mustang Aviation FBO, truck service only.
- 5. Refueling is supervised and pump is covered.
- 6. You must refuel to full or tabs, based on previously declared fuel load.
- 7. Make sure your refueling paperwork is signed by the rally official or FBO designate.
- 8. Depart on your own release.
- 9. Proceed direct to Pierre VORTAC.
- 10. Clock restarts at CPA to the Pierre VORTAC.

OPTIONAL REFUELING STOP PROCEDURES (Continued)

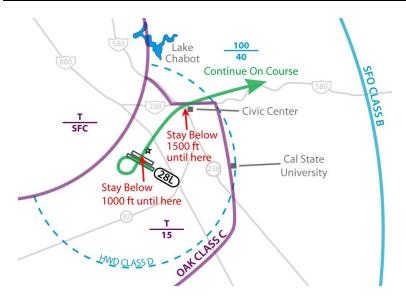
Albert Lea, MN (KAEL)

- 1. After <deleted> checkpoint, proceed overhead AEL VORTAC at an altitude higher than airport traffic pattern (suggest 2800' MSL or above).
- 2. Clock stops at CPA to AEL VORTAC
- 3. Descend in proper pattern, land.
- 4. Leave GPS logger running.
- 5. Get fuel at city-operated FBO, 100LL self-service pump only.
- 6. Refueling is supervised and pump meter is covered.
- 7. You must refuel to full or tabs, based on previously declared fuel load.
- 8. Make sure your refueling paperwork is signed by the rally official or FBO designate.
- 9. Depart on your own release.
- 10. Proceed direct to Austin VOR.
- 11. Clock restarts at CPA to the Austin VOR.

HAYWARD DEPARTURE PROCEDURES

Check	boxes are provided for your planning use if desired
	should be at their airplanes by 0700 Thursday morning. official will collect your time and fuel estimates by 0730
Prior to	engine start:
	Rally Score Sheet ("Fuel and Time Estimate Log") inside cockpit.
	Review the departure diagram on the next page.
	Monitor and copy ATIS – 126.7.
	Place this green start card in windscreen or out window so the ramp official can clear you for engine start.
	GPS DATA LOGGER SWITCHED ON.
•	official will indicate when you should start the engine(s) ill also be given a signal to taxi to run-up. When directed
	Contact Hayward Ground – 121.4. Request taxi clearance with the ATIS. Example "Hayward Ground Race Two Zero for taxi with information Alpha."
a prope	you get to the run-up area, you will have plenty of time for check – but be prepared to move along as we attempt to aircraft at one-minute intervals.
	you are 'number one holding short', a rally starting I will signal you to taxi to 'line up and wait' on the /.
	Switch to and monitor Hayward Tower – 120.2. No call is necessary, simply monitor the tower frequency.
	Conditions to many many

- ☐ Transponder on to 1250 with ALT.
- The rally starting official will raise a flag ten (10) seconds before the start of your takeoff run, then raise another hand and count down the final five seconds with a finger count. At the drop of the flag the clock is running for your flight, and you should start your takeoff run.
- Standard departure for 28L is a left 270 overhead departure. No right turnouts from 28L due to noise abatement requirements.
- ☐ Cross over the airport below 1,000' MSL.
- Continue to monitor the tower frequency 120.2 after takeoff.
- Proceed direct to the Hayward Civic Center below 1,500' MSL: Oakland Class C airspace is 1,500' MSL and above do not enter without establishing two-way communications with ATC.



NorCal Departure – 125.35

- ☐ Monitor Hayward Tower 120.2 until abeam Lake Chabot or Cal State Hayward.
- Proceed on course to overhead Livermore (LVK).

 Note the Livermore Class "D" airspace 2,900'

 MSL and below.
- ☐ Enter the LVK area above 2,900' MSL unless clearance for lower altitude transit is received from ATC.

Livermore ATIS - 119.65

Tower - 118.1

- When clear of LVK Class D, proceed on course to the first mandatory checkpoint at <deleted>.
 Altitude and heading are at your discretion.
- ☐ Takeoff time recorded in Flight Plan Calculator on page 14.



HWD – SPZ CHECKPOINTS

Checkpoint 1	<deleted></deleted>
Optional Bonus Checkpoint B-1	<deleted></deleted>

Checkpoint 2	<deleted></deleted>
Checkpoint 3	<deleted></deleted>

From the <deleted> checkpoint, proceed to Nixon, then continue to WADDS to start your approach to Timing Line 'Hale'.

- ☐ Monitor the Fallon Airport AWOS on 118.25 or Silver Springs AWOS 122.9 to obtain the local area altimeter setting.
- ☐ Remain above 6,500' MSL until passing WADDS.
- Remain above 5,150' MSL until passing cell tower (4,156' obstruction) in Wadsworth.

Checklist continues on page 32
Description of timing line on next page



NAVIATOR

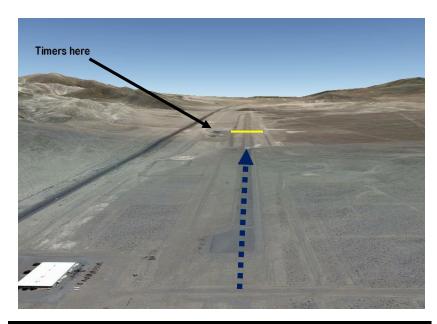
The Navigation Solution for Android Aviators

SILVER SPRINGS ARRIVAL TIMING

HALE Frequency 122.9 Lat 39° 33.621' Long 119° 14.438' Field Elevation 4,346'

The timing line is on the runway at the Tiger Field airport (N58). The line is located midfield, in front of the blue-roofed hangar on the east side of the field. Fly a low pass over the runway, north to south. The timing line is approximately 9 nautical miles from Silver Springs Airport.

Required altitude over the timing line is 4,450' MSL.



CAUTION: Runway 15 departure end is 50' higher than approach end.

SILVER SPRINGS TIMING (Hale) APPROACH

From overhead WADDS, track 158° true towards the town of Wadsworth. Refer to the pictures on the next page.

☐ Overhead WADDS, call the timers on 122.9. Example "Checkpoint Hale, Race Two Zero at WADDS, inbound for timing."

☐ At the highway-river-railroad point north of Wadsworth: Landing lights on, and report to timers.

☐ Intercept and track the Tiger Field runway centerline as soon as it is visible.

lights on."

Example "Checkpoint Hale, Race Two Zero is five miles,

One (1) mile prior to Hale, passing abeam the high school football field on the east side of the highway:

Report to timers. Example "Checkpoint Hale, Race Two Zero, one mile final for timing."

■ MAINTAIN AT OR ABOVE 4,846' MSL for noise abatement until passing the residential subdivision.

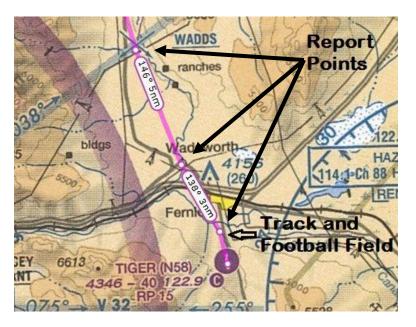
Plan a descent to 4,450' MSL prior to the timing line.

DO NOT FLY OVER THE TIMERS! They are located east of Tiger Field's 15-33 runway, at the blue-roofed hangar midfield. Please cross the timing line at 4,450' MSL, maintaining runway centerline.

When you cross the line, the timing officials should confirm on 122.9 that they have recorded your time. Your actual "clock time" will not be disclosed. After crossing the timing line, climb immediately, follow the adjacent highway south, and proceed for landing at Silver Springs.

Checklist continues on page 31
Diagrams of timing line approach on next page

'HALE' AT TIGER FIELD APPROACH VIEWS





SILVER SPRINGS AIRPORT ARRIVAL

- ☐ Departing Hale, start a climb to 5,500' MSL or higher, continue south following the highway, and maintain a listening watch on 122.9, which is used by both Tiger and Silver Springs Airports.
- At five miles from Silver Springs, make your standard radio call for an uncontrolled airport. Example "Silver Springs Traffic, Race Two Zero, a Cessna 172 is five north, inbound for landing."
- You can reasonably expect traffic landing on runway 23, with a direct entry to right base.

Note that any go-arounds, extended pattern entries, etc. will not be penalized. You have already been timed and you can request a fuel adjustment (vector) prior to fueling with a ramp official present.

☐ Follow the directions of rally marshallers as you approach the ramp. There are two ramp areas used by the rally.



When you are parked, you will be met by a ramp
official. Fueling must be supervised by a ramp official –
don't forget to declare any "fuel vector" requested if
necessary.
-

- A rally official must be present during refueling, and the fuel truck or self-serve pump meter must be covered prior to fueling.
- ☐ Verify that the fuel pump meter has been set to zero prior to covering.
- ☐ GPS DATA LOGGER SWITCHED OFF.

The pilot or copilot must remain with the aircraft until fueling is completed. When released by the ramp official, you may proceed to lunch and the FBO gathering area. Aircraft on the self-serve ramp may reposition to parking either by engine start or manual towing.

Free bottled water is available, immediately outside the entrance door to the airport lounge. Pick it up as you go inside. If fueled from the truck, please be prepared to pay for your fuel at the FBO counter. See the contact information on page 12 for which payment methods will be accepted by the FBO. Lunch is provided for the rally crews in the hangar area.

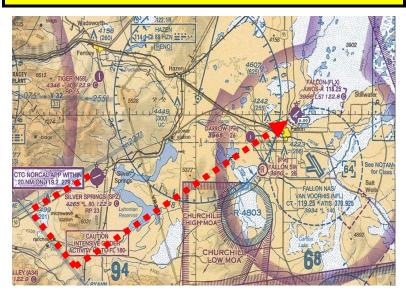
Free wireless internet access and a flight briefing room are available in the FBO for updating weather briefings and flight plans. (SSID = SilverSpringsAP1; Password = kathleenbennett)



SPZ DEPARTURE PROCEDURES

	Copy Super AWOS on 122.9 before engine start, or using cell call Super AWOS at 617-262-3825, input 779 for the airport code, then option 2.
	Rally Score Sheet ("Fuel and Time Estimate Log") inside cockpit.
	Review the departure diagram on the next page.
	GPS DATA LOGGER SWITCHED ON.
	Prior to engine start, call 'Sky Control' on 122.9 for ramp exit advisory. Expect Runway 23 in use for departures. Use normal uncontrolled airport radio procedures once the airplane is moving.
After completing your run-up:	
	Transponder on to 1250 with ALT.
	Taxi up to and HOLD SHORT of 23. Similar to the procedure used at Hayward, the departure timers will signal you onto the runway to hold for takeoff.
	The rally starting official will raise a flag ten (10) seconds before the start of your takeoff run, then raise another hand and count down the final five seconds with a finger count. At the drop of the flag the clock is running for your flight, and you should start your takeoff run.
	Rally departure plan is extended upwind from 23, then left turns around the terrain to depart the area to the east.
	Monitor Silver Springs Unicom 122.9 until clear of Lahontan Reservoir to the east.

- For an orderly transition out of the area, climb to 7,500' MSL or above, and proceed direct to overhead Fallon Municipal Airport (FLX).
- Note NAS Fallon (NFL) Class D, 6434' MSL and below. Do not transit this area below 6,500' MSL without ATC clearance.



Review your ETA to Wendover on page 14, and update your Flight Plan with FSS if necessary.

SPZ – ENV CHECKPOINTS

☐ Checkpoint 4	<deleted></deleted>
When clear of the special use airspace:	
☐ Monitor the air-to-air frequency 1	122.75.
☐ Check transponder now to 1250 w	vith ALT.
☐ Checkpoint 5	<deleted></deleted>

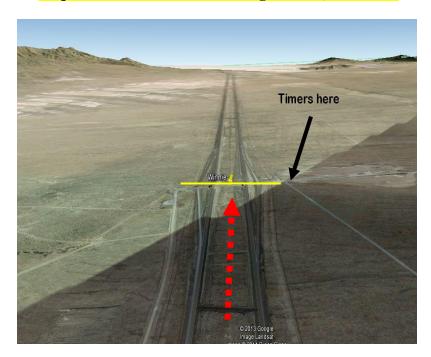
□ Optional Bonus Checkpoint B-2
 □ Checkpoint 6 <deleted>
 □ Proceed to Cobre (N41° 07.11' W114° 24.23') for start of Timing Line Winnie approach.
 □ If possible, maintain a listening watch on Clover Control 118.45.

WENDOVER ARRIVAL TIMING

WINNIE Frequency 122.75
Lat 40° 50.499' Long 114° 12.595'
Spot Elevation ~4,650'

The timing line is at the Pilot Road interchange on I-80. The line extends essentially northeast-southwest, and is centered on the interchange. Fly a pass over the interchange, northwest to southeast. The timing line is approximately 11 nautical miles from Wendover Airfield.

Required altitude over the timing line is 5,150' MSL.



WENDOVER TIMING (WINNIE) APPROACH

railroad tracks, then proceed southeasterly towards Winnie.	
	Intercepting the freeway: Call the timers on 122.75. Example "Checkpoint Winnie, Race Two Zero is ten miles out, inbound for timing."
	terrain masking, the Winnie timing officials might not ntil you are closer to their location.
	Fly southeasterly, following the interstate highway.
	Five (5) miles out, at the loop in the railroad tracks: Landing lights on, and report to timers. Example "Checkpoint Winnie, Race Two Zero is at the railroad tracks, lights on."
	Plan your descent to 5,150' MSL prior to Winnie.
	Two (2) miles from Winnie, by your estimate: Report to timers. Example "Checkpoint Winnie, Race Two Zero is two miles for timing."
	innie timing line is the intersection of the crossing road

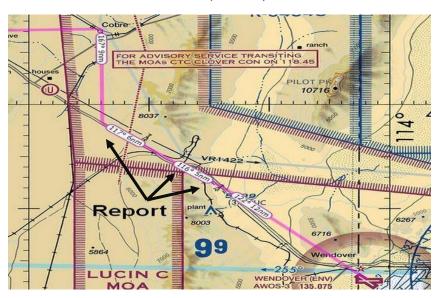
The Winnie timing line is the intersection of the crossing road and the interstate highway, centered between the divided north and south highway lanes.

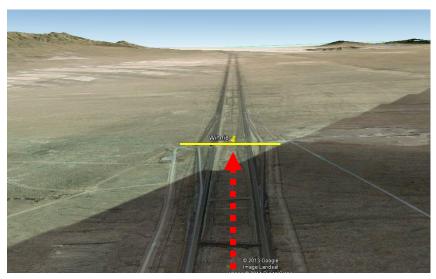
DO NOT OVERFLY THE TIMERS! The timers will be to the west of the highway. Please cross the timing line at 5,150' MSL.

When you cross the timing line, the timing officials should confirm on 122.75 that they have recorded your time. They will not report your actual clock time; only an acknowledgement that your time has been recorded will be made.

'Winnie' Approach Views next page Checklist continues on page 44

WENDOVER TIMING (Winnie) APPROACH

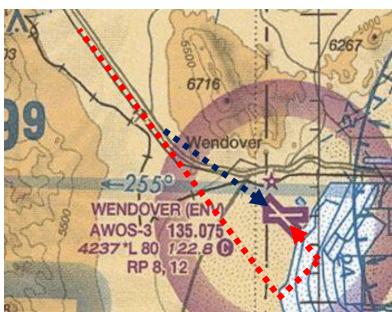




WENDOVER AIRPORT ARRIVAL

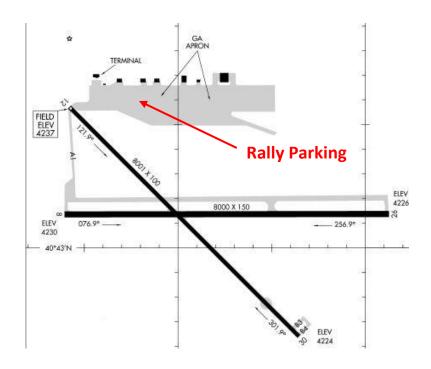
At the timing line you are approximately eleven (11) miles from Wendover Airfield.

- Departing Winnie, continue straight out at 5,700' MSL or above, following the highway towards the southeast and Wendover.
- ☐ Contact Wendover Unicom on 122.8. Advise airport users that you are inbound for landing. Example "Wendover Traffic, Race Two Zero, a Cessna 172, departing Pilot Road interchange, ten northwest requesting airport advisory."
- You may expect 30 for landing, with a direct entry to a left downwind pattern. If runway 12 is in use, make a straight-in to final. For noise abatement, remain at or above 5,500' MSL until past the buildings in Wendover. Runways 8-26 are closed for construction.



Wendover Airport Diagram next page Checklist continues at page 46

WENDOVER AIRPORT DIAGRAM





Any number of go-arounds, extended patterns due to traffic, etc., will not be penalized. You have already been timed and you can request a fuel vector adjustment prior to fueling with a ramp official present.

Rally parking is on the main ramp, adjacent to the terminal building. When exiting the runway, look for ramp officials to guide you to parking. All fueling at ENV is from fuel trucks.

When you are parked and out of the airplane, you will be met by a ramp official and a fuel truck. Fueling must be supervised by a ramp official – don't forget to declare any "fuel vector" requested if necessary.

"Prohibited cockpit equipment" status will be verified on ramp arrival.
A race official must be present during refueling, and the truck fuel meter must be covered prior to fueling.
Verify that the truck fuel meter has been set to zero prior to covering.

The pilot or copilot must remain with the aircraft until fueling is completed. When fueling is complete, you will be expected to complete your first day rally scoring form including all your checkpoint answers. The ramp official will then collect the GPS logging device and the final scoring copy, leaving you with a pink copy for your records.

Please be prepared to pay for your fuel at the FBO office. Payment methods accepted by this FBO are listed on page 12.

There is a pilot weather briefing computer station upstairs, and free wireless internet access is available throughout the FBO building (SSID = TooeleCounty password=P@ssw0rd1234).

WENDOVER ACTIVITY INFORMATION

IMPORTANT NOTE: While at the airport and in the West Wendover, NV hotel and casino area, west of the state border, **your cell phone will display Pacific Daylight Time** but the hotels and local businesses all observe Mountain Daylight Time due to the close proximity to Wendover, UT.

Posted hours of operation for various facilities within the host hotel, wakeup calls from the front desk, and rally event times listed on this page are Mountain Daylight Time.

HOSPITALITY SUITE

Rooms poolside, Montego Bay Hotel 100 W. Wendover Blvd West Wendover, NV 89883

Open Thursday: 1500 – 2000 MDT

FRIDAY DEPARTURE BRIEFING (BREAKFAST INCLUDED)

Montego Bay Convention Center Breakfast starts 0600 Briefing 0615

HOTEL DEPARTURE

Shuttles will be available at the front of the hotel. Please check-out of the hotel at the front desk or on your room television before going to the airport. Please allow the earliest rally departures to use the first shuttles.

EVENT CONTACT INFORMATION (DAY 2)

Event Chairman:	(408) 757-3426
Wendover Ramp Lead:	(510) 967-3551
Montego Bay Resort:	(800) 217-0049
Wendover FBO:	(435) 665-2308
Prescott FSS:	122.1/112.3R via Reno Radio
Cedar City Radio:	
Boise Radio:	
Casper Radio:	122.3 (West WY)
	122.2 (Central WY)
	122.5 (Eastern WY)
Lander Ramp Lead:	(307) 349-4403
Lander FBO:	(307) 332-3134
Huron Radio:	122.65
Rapid City Ramp Lead:	(510) 589-5849
Rapid City FBO:	(605) 393-2500
Ramkota Hotel:	(605) 343-8550

FBO Information:

ENV Wendover Airfield (Avfuel, 435-665-2308, Unicom 122.8): Accepts Visa, Mastercard, American Express, Discover, Multiservice, Avcard, cash. No personal checks.

LND Wind River Aviation (Phillips 66, 307-332-3134, Unicom 122.8): Accepts Visa, Mastercard. No personal checks.

RAP Westjet Air Center (Philips 66, 605-393-2500, Unicom 122.95): Accepts, Visa, Mastercard, Discover, American Express, Multiservice, Avcard, cash. No personal checks.

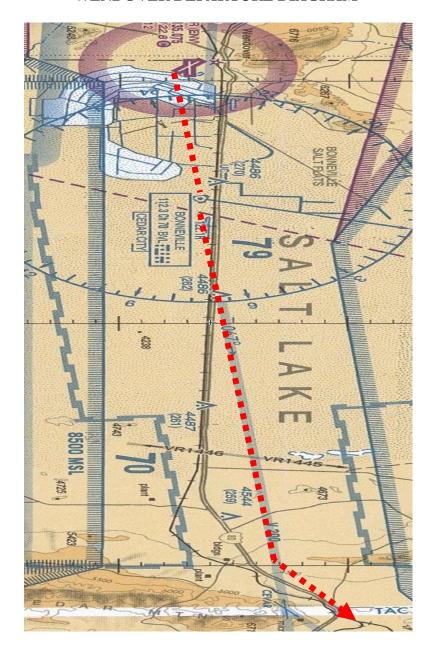
WENDOVER DEPARTURE PROCEDURES

Check	boxes
	should be at their airplanes by 0700 Friday morning. A fficial will collect your time and fuel estimates by 0715.
Prior to	o engine start:
	Rally Score Sheet ("Fuel and Time Estimate Log") inside cockpit.
	Review the departure diagram on page 48.
	Copy AWOS – 121.55.
	Monitor Wendover UNICOM – 122.8.
	Place this green start card in windscreen or out window so the ramp official can clear you for engine start.
	GPS DATA LOGGER SWITCHED ON.
•	official will indicate when you should start the engine(s) ill also be given a signal to taxi to run-up. When directed
	Announce your aircraft movement on UNICOM. Example "Wendover Traffic, Race Two Zero is taxiing for departure on runway 12."
a prope	you get to the run-up area, you will have plenty of time for check – but be prepared to move along as we attempt to aircraft at one-minute intervals.
	you are 'number one holding short', a rally starting I will signal you to taxi onto the runway and 'line up and
	Transponder on to 1250 with ALT.
	Continue to next page

The rally starting official will raise a flag ten (10) seconds before the start of your takeoff run, then raise another hand and count down the final five seconds with a finger count. At the drop of the flag the clock is running for your flight, and you should start your takeoff run. Rally departure plan is left turn after takeoff from 12, proceed towards Bonneville VORTAC, then continue eastward through the 'I-80 Corridor' towards CEVAR. Takeoff time recorded in Flight Plan Calculator here. ENV-RAP FLIGHT PLAN TIME CALCULATOR Wendover Takeoff Time **MDT** + ETE from Group Flight Plan += Your Flight Plan ETA to RAP **MDT** *Add* +6 hours for UTC EXERCISE CAUTION AND REMAIN CLEAR OF ALL ADJACENT RESTRICTED AREAS. EXPECT ALL AREAS TO BE 'HOT' AND ACTIVE SFC-FL580. Monitor Wendover UNICOM 122.8 until passing Bonneville. Passing CEVAR, monitor Salt Lake City Approach on 120.9. No call is necessary unless you are requesting ATC services.

> Wendover Departure Diagram next page Leg Checkpoints start on page 52

WENDOVER DEPARTURE DIAGRAM



ENV – LND CHECKPOINTS

Optional Bonus Checkpoint B-3

<deleted>

OPTIONAL FUEL STOP AT BRIGHAM CITY (BMC)

Only for crews previously declaring a requirement for refueling based on limited range of their aircraft.

☐ Checkpoint 7

<deleted>

□ Che	eckpoint 8	<deleted></deleted>
	Checkpoint 9	<deleted></deleted>
☐ From <deleted>, proceed towards the Lander area via South Pass (N42° 30.00' W108° 46.00') for start of Timing Line Wind River approach.</deleted>		
	Copy the South Pass AWOS 11 e to obtain mountain pass weat	

LANDER ARRIVAL TIMING

WIND RIVER Frequency 122.75
Lat 42° 43.733' Long 108° 38.800'
Spot Elevation ~5550'

The timing line is at a well-defined highway intersection south of Lander, with a large pond adjacent to the northeast. The line extends east-west, and is centered on the intersection. Fly a pass over the intersection, south to north. The timing line is approximately six nautical miles from Hunt Field Airport.

Required altitude over the timing line is 6,100' MSL.



LANDER TIMING (Wind River) APPROACH

From South Pass, fly to the 'Highway Bend' at N42°39.07', W108°35.33'. Recommend 9,500' MSL to cross South Pass. At the Highway Bend, you are approximately five miles from the timing line. Refer to the diagram on the next page.

At South Pass: Copy the Lander ASOS 118.15.
Five (5) miles east of South Pass, by your estimate: Call the timers on 122.75. Example "Checkpoint Wind River, Race Two Zero, inbound from South Pass for timing."
errain masking, the Wind River timing officials might not till you are closer to their location.
At the highway bend: Landing lights on, and report to timers. Example "Checkpoint Wind River, Race Two Zero is at the bend, lights on."
Turn northwesterly and follow the highway towards Wind River.
Plan your descent to 6,100' MSL prior to Wind River.
Two (2) miles from Wind River, by your estimate: Report to timers. Example "Checkpoint Wind River, Race Two Zero is two miles for timing."

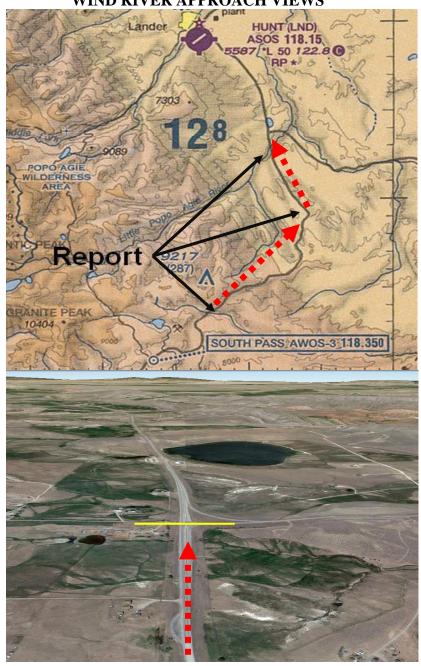
The Wind River timing line is the center of the intersection of the crossing road and the highway.

DO NOT OVERFLY THE TIMERS! The timers will be to the east of the intersection. Please cross the timing line at 6,100' MSL.

When you cross the timing line, the timing officials should confirm on 122.75 that they have recorded your time. They will not report your actual clock time; only an acknowledgement that your time has been recorded will be made.

'Wind River' Approach Views on next page Checklist continues on page 57

WIND RIVER APPROACH VIEWS



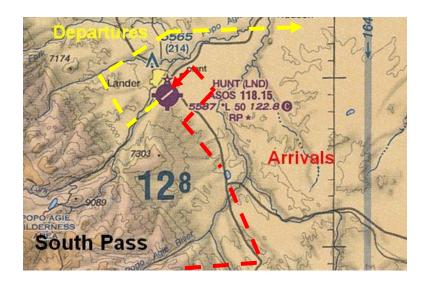
LANDER AIRPORT ARRIVAL

At the timing line you are approximately five (5) miles from Hunt Field.

- ☐ Departing Wind River, continue straight out at 6,600' MSL or above, following the highway towards the northwest and Lander.
- ☐ Contact Hunt Field Unicom on 122.8. Advise airport users that you are inbound for landing.

 Example "Lander Traffic, Race Two Zero, a Cessna 172, five southeast requesting airport advisory."
- You may expect 21 for landing, with a right turn into a left downwind pattern.

Caution for departing rally traffic which will be in a pattern on the north side of the field.



LANDER AIRPORT ARRIVAL

Note that any go-arounds, extended pattern entries, etc. will not be penalized. You have already been timed and you can request a fuel adjustment (vector) prior to fueling with a ramp official present.

After landing, exit at the first available taxiway. Upon exiting the runway:

☐ Follow the directions of rally marshallers as you approach the ramp. Rally aircraft will be directed to self-serve fueling.

When you are parked, you will be met by a ramp official. Fueling must be supervised by a ramp official – **don't forget to declare any "fuel vector" requested if necessary.**

- ☐ A rally official must be present during refueling, and the fuel truck or self-serve pump meter must be covered prior to fueling.
- ☐ Verify that the fuel pump meter has been set to zero prior to covering.
- ☐ GPS DATA LOGGER SWITCHED OFF.

The pilot or copilot must remain with the aircraft until fueling is completed. When released by the ramp official, you may proceed to lunch and the FBO gathering area. Aircraft on the self-serve ramp may reposition to parking either by engine start or manual towing.

Free bottled water is available, immediately outside the entrance door to the airport lounge. Pick it up as you go inside. See the contact information on page 48 for which payment methods will be accepted by the FBO.

In the FBO and hangar area the local EAA chapter will host a free BBQ lunch for all rally crews and passengers.

Free wireless internet access and a flight briefing room are available in the FBO for updating weather briefings and flight plans. (SSID = Hunt Field; Password = Flyhigh1)



USS LANDER (CVN-321) AERIAL PHOTO



LANDER DEPARTURE PROCEDURES Copy ASOS on 118.15 before engine start. Rally Score Sheet ("Fuel and Time Estimate Log") inside cockpit. GPS DATA LOGGER SWITCHED ON. Expect Runway 21 in use for departures. Use normal uncontrolled airport radio procedures on UNICOM 122.8 once the airplane is moving. After completing your run-up: Transponder on to 1250 with ALT. Taxi up to and HOLD SHORT of 21. Similar to the procedure used at Silver Springs, the departure timers will signal you onto the runway to hold for takeoff. The rally starting official will raise a flag ten (10) seconds before the start of your takeoff run, then raise another hand and count down the final five seconds

All racers should make a right downwind departure to remain clear of rally traffic arriving from the south.

with a finger count. At the drop of the flag the clock is running for your flight, and you should start your

Proceed on course to the <deleted> checkpoint.

takeoff run.

Continue monitoring UNICOM 122.8 for Lander on departure, and then also while transitioning to the south of Riverton Airport (RIW).

When clear of the Riverton area to the southeast, monitor the air-to-air frequency 122.75.

Review your ETA to Rapid City on page 50, and update your Flight Plan with FSS if necessary.



LND – RAP CHECKPOINTS

Checkpoint 10	<deleted></deleted>
Optional Bonus Checkpoint B-4	<deleted></deleted>

☐ Checkpoint 11	<deleted></deleted>
☐ Checkpoint 12	<deleted></deleted>
☐ From <deleted>, proceed to Hill City W103° 34.43') for start of Timing I approach.</deleted>	*

RAPID CITY ARRIVAL TIMING

BUFF Frequency 122.75 Lat 40° 50.499' Long 114° 12.595' Spot Elevation ~3,549'

The timing line is at the Reptile Gardens park, south of the Rapid City area on US-16. The line extends essentially northwest-southeast, and is centered on the middle parking lot entrance. Fly a pass along the highway, southwest to northeast. The timing line is approximately 11 nautical miles from Rapid City Regional Airport.

Required altitude over the timing line is 4,550' MSL.



RAPID CITY TIMING (BUFF) APPROACH

From Hill City, fly to Rockerville (N43° 57.50', W103° 21.52'). Recommend 7,500' MSL crossing Hill City. At Hill City, you are approximately 13 miles from the timing line. Refer to the diagram below.

- At Hill City, copy the Rapid City ASOS on 118.525.
- East of Hill City, abeam 'the lake': Call the timers on 122.75. Example "Checkpoint BUFF, Race Two Zero at the lake, eight miles, inbound for timing."
- At Rockerville: landing lights on, and report to timers.

 Example "Checkpoint BUFF, Race Two Zero is at Rockerville, lights on."
- From Rockerville, fly northeasterly, following the US-16 highway.
- Plan your descent to 4,550' MSL after passing Rockerville.
- One (1) mile from BUFF, by your estimate: Report to timers. Example "Checkpoint BUFF, Race Two Zero is one mile for timing."



The BUFF timing line is the intersection of the Reptile Gardens parking lot middle entrance and the highway, northeast of (past) the domed building.

DO NOT OVERFLY THE TIMERS! The timers will be to the west (left) of the highway. Please cross the timing line at 4,550' MSL.

When you cross the timing line, the timing officials should confirm on **122.75** that they have recorded your time. They will not report your actual clock time; only an acknowledgement that your time has been recorded will be made.

APPROACHING BUFF FROM ROCKERVILLE

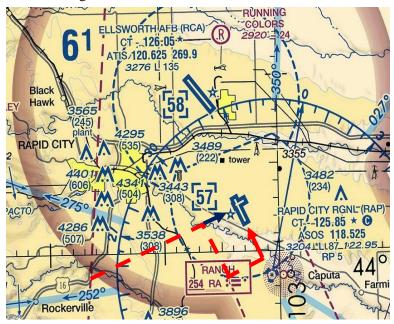


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RAPID CITY AIRPORT ARRIVAL

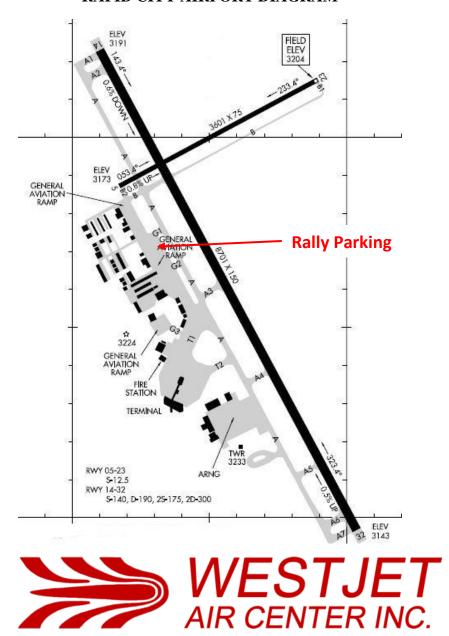
At the timing line you are approximately eleven (11) miles from Rapid City Regional Airport.

- Departing BUFF, continue straight out and climb to 5,000' MSL or above, following the highway towards the northeast and RAP.
- □ <deleted>
- ☐ Contact Rapid City Tower on 125.85. Report your position and that you are inbound for landing. Example "Rapid City Tower, Race Two Zero, a Cessna 172, departing Reptile Gardens for landing."
- You may expect 32 for landing, with a right turn into a left downwind pattern. If runway 5 is offered, expect a straight-in to final.



☐ Contact Rapid City Ground on 121.9 or as directed, when clear of the runway.

RAPID CITY AIRPORT DIAGRAM



Any number of go-arounds, extended patterns due to traffic, etc., will not be penalized. You have already been timed and you can request a fuel vector adjustment prior to fueling with a ramp official present.

Rally parking is on the General Aviation ramp, in multiple areas. When exiting the runway, look for ramp officials to guide you to parking. All fueling at RAP is from fuel trucks.

When you are parked and out of the airplane, you will be met by a ramp official and a fuel truck. Fueling must be supervised by a ramp official – don't forget to declare any "fuel vector" requested if necessary.

"Prohibited cockpit equipment" status will be verified on ramp arrival.
A race official must be present during refueling, and the truck fuel meter must be covered prior to fueling.
Verify that the truck fuel meter has been set to zero prior to covering.

The pilot or copilot must remain with the aircraft until fueling is completed. When fueling is complete, you will be expected to complete your second day rally scoring form including all your checkpoint answers. The ramp official will then collect the GPS logging device and the final scoring copy, leaving you with a pink copy for your records.

Please be prepared to pay for your fuel at the FBO office. Payment methods accepted by this FBO are listed on page 48.

Is your Flight Plan closed? You should close your flight plan with FSS prior to landing at RAP, or using normal procedures after landing. The airport and FBO staff will not close rally flight plans on arrival.

☐ GPS DATA LOGGER SWITCHED OFF.

☐ Continue your watch on Mountain Time.

Courtesy transportation to the hotel is available; ask any ramp volunteer for directions.

Please take everything you will need at the hotel at this time, including your remaining pink copy of the rally scoring form.

The parking ramp at RAP is accessible 24 hours daily through the FBO.

Best Western Ramkota Hotel: The shuttles will drop you at the main entrance. Proceed to the Front Desk where there will be a special check-in line for the Rally. The most current information about the Hospitality Suite will be provided at check-in.



RAPID CITY ACTIVITY INFORMATION

HOSPITALITY SUITE

Room(s) 1702-1703, Ramkota Hotel 2111 North LaCrosse Street Rapid City, SD 57701

Open Friday: 1500 – 2000 MDT

SATURDAY DEPARTURE BRIEFING (BREAKFAST INCLUDED)

Ramkota Hotel 'Washington' Convention Room Breakfast starts 0600 Briefing 0615

HOTEL DEPARTURE

Shuttles will be available at the front of the hotel. Please check-out of the hotel at the front desk or on your room television before going to the airport. Please allow the earliest planned rally departures to use the first shuttles.

EVENT CONTACT INFORMATION (DAY 3)

Event Chairman:	(408) 757-3426
Rapid City Ramp Lead:	(510) 589-5849
Ramkota Hotel:	(605) 343-8550
Rapid City FBO:	(605) 393-2500
Princeton FSS:	122.65 via Huron Radio
Huron Radio:	122.65 (Western SD)
	122.2 (Central SD)
	122.5 (Eastern SD)
Montevideo Ramp Lead:	(925) 997-4778
Montevideo FBO:	(307) 332-3134
Princeton Radio:	122.05, 122.5 (Central MN)
	122.5 (Southern MN)
Green Bay Radio:	122.35 (Western WI)
	122.6 (Madison area)
Madison Ramp Lead:	(510) 589-5849
Madison FBO:	(608) 268-5000
Great Lakes FSS:	122.6 via MSN VOR
Crowne Plaza Hotel:	(608) 244-4703

FBO Information:

RAP Westjet Air Center (Philips 66, 605-393-2500, Unicom 122.95): Accepts, Visa, Mastercard, Discover, American Express, Multiservice, Avcard, cash. No personal checks.

MVE Borgerson Aviation (Avfuel, 307-332-3134, Unicom 122.8): Accepts Visa, Mastercard, Discover. No personal checks.

MSN Wisconsin Aviation (Avfuel, 608-268-5000, Unicom 122.95): Accepts Avfuel contract, Visa, Mastercard, Discover, Avcard, Multiservice, American Express, cash, and checks.

RAPID CITY DEPARTURE PROCEDURES

Check	boxes are provided for your planning use if desired
	should be at their airplanes by 0700 Saturday morning. A fficial will collect your time and fuel estimates by 0715.
Prior to	o engine start:
	Rally Score Sheet ("Fuel and Time Estimate Log") inside cockpit.
	Copy ASOS – 118.525.
	Place this green start card in windscreen or out window so the ramp official can clear you for engine start.
	GPS DATA LOGGER SWITCHED ON.
A rally	official will indicate when you should start the engine(s).
•	ill also be given a signal to taxi to run-up. When directed
You w	ill also be given a signal to taxi to run-up. When directed
You w to taxi:	ill also be given a signal to taxi to run-up. When directed Contact Rapid City Ground – 121.9. Request taxi clearance. Example "Rapid City Ground, Race Two
You w to taxi: Rally cassign When a proper	Contact Rapid City Ground – 121.9. Request taxi clearance. Example "Rapid City Ground, Race Two Zero, request taxi for takeoff." departure plan is to use Runway 5, however ATC may
You w to taxi: Rally cassign When a proper	Contact Rapid City Ground – 121.9. Request taxi clearance. Example "Rapid City Ground, Race Two Zero, request taxi for takeoff." departure plan is to use Runway 5, however ATC may a different runway based on winds or operational needs. you get to the run-up area, you will have plenty of time for check – but be prepared to move along as we attempt to
Rally cassign When a propelaunch When	Contact Rapid City Ground – 121.9. Request taxi clearance. Example "Rapid City Ground, Race Two Zero, request taxi for takeoff." departure plan is to use Runway 5, however ATC may a different runway based on winds or operational needs. you get to the run-up area, you will have plenty of time for check – but be prepared to move along as we attempt to aircraft at one-minute intervals.

Taxi up to and HOLD SHORT of runway 5. When
you are number one for takeoff, call the Tower on
125.85. Advise them you are ready for takeoff with a
straight-out departure. Example "Rapid City Tower,
Race Two Zero ready at 5 for straight-out."

TOWER WILL CLEAR YOU FOR TAKEOFF.

The rally timers are located on the left shoulder near the beginning of 5, and are monitoring tower frequency. When tower says "cleared for takeoff", taxi into position and hold (line up and wait). Look at the timers to give you a countdown to go: 10 seconds, 5 seconds, then a drop of the flag. Start your takeoff roll at the flag drop. Your timing for this leg of the rally will begin on the flag drop.

Takeoff time recorded in Flight Plan Calculator here.

RAP-MSN FLIGHT PLAN TIME CALCULATOR

Rapid City Takeoff Time		MDT
+ ETE from Group Flight Plan	+	
+ Time Zone Correction	+	one hour
= Your Flight Plan ETA to MSN	=	CDT

Add +6 hours for UTC (Mountain) Add +5 hours for UTC (Central)

□ Proceed on course to your first checkpoint.

RAP – MVE CHECKPOINTS

Optional Bonus	<deleted></deleted>
Checkpoint B-5	

Reset your watch to Central Time (+ one hour).

☐ Checkpoint 13

<deleted>

OPTIONAL FUEL STOP AT PIERRE (PIR)

Only for crews previously declaring a requirement for refueling based on limited range of their aircraft.

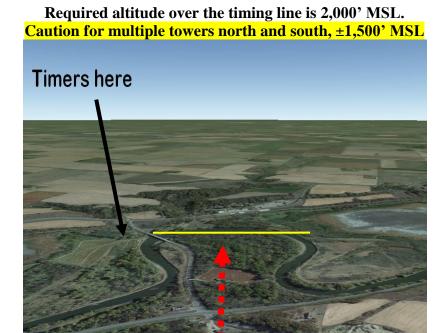
Continue to next page.

☐ Checkpoint 14	<deleted></deleted>
☐ Checkpoint 15	<deleted></deleted>
☐ From <deleted>, proceed toward (N44° 51.00' W095° 53.80') for somega approach.</deleted>	•

OMEGA Lat 44° 53.388' Spot Elevation

Frequency 122.75 Long 095° 38.935' ~917'

The timing line is at the apex of the Ω -shaped curve in the Minnesota River, just west of Wegdahl. The line extends NNW-SSE from a roadway bridge on the north of the river curve. Fly a pass over the timing line, west to east. The timing line is approximately 6 nautical miles from Montevideo Airport. You might not see the Ω clearly at lower altitudes.



MONTEVIDEO TIMING (Omega) APPROACH

From Boyd, track 075° true towards the timing line. You can safely descend to 2,000' MSL at Boyd. At Boyd, you are approximately 11 miles from the timing line. Refer to the diagram below.

- At Boyd: Copy the Montevideo AWOS 111.6 (VOR).
- Passing Boyd: Call the timers on 122.75. Example "Checkpoint Omega, Race Two Zero, inbound from Boyd for timing."
- ☐ After passing the first N-S highway (US-59):
 Landing lights on, and report to timers. Example
 "Checkpoint Omega, Race Two Zero is six miles, lights on."
- ☐ With the river bend in sight, and no more than two (2) miles from Omega, by your estimate: Report to timers. Example "Checkpoint Omega, Race Two Zero is two miles for timing."

Caution for multiple towers north and south of the timing line at $\pm 1,500^{\circ}$ MSL.



The Omega timing line is the eastern apex of the curve in the river, extending from the highway bridge on the north side of the curve.

DO NOT OVERFLY THE TIMERS! The timers will be to the north of the bridge, looking south over the timing line. Please cross the timing line at 2,000' MSL.

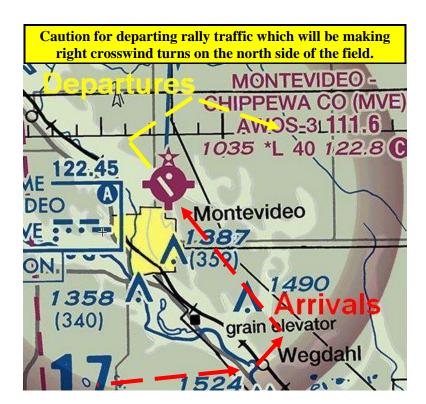
When you cross the timing line, the timing officials should confirm on 122.75 that they have recorded your time. They will not report your actual clock time; only an acknowledgement that your time has been recorded will be made.

Continue to next page.

MONTEVIDEO AIRPORT ARRIVAL

At the timing line you are approximately six (6) miles from Montevideo-Chippewa County Airport.

- ☐ Departing Omega, maintain 2,000' MSL or above, and continue eastbound until you have the 1,490' tower obstruction in sight.
- ☐ Contact Montevideo UNICOM on 122.8 for airport conditions and traffic patterns use. Advise airport users that you are inbound for landing. Example "Montevideo Traffic, Race Two Zero, a Cessna 172, five southeast requesting airport advisory."
- You should expect 32 for landing, with a left turn to a straight-in approach.



MONTEVIDEO AIRPORT ARRIVAL

Note that any go-arounds, extended pattern entries, etc. will not be penalized. You have already been timed and you can request a fuel adjustment (vector) prior to fueling with a ramp official present.

After landing, exit at the first available taxiway. Upon exiting the runway:

Follow the directions of rally marshallers as you approach the ramp. Rally aircraft will be directed to the self-serve pump.

When you are parked, you will be met by a ramp official. Fueling must be supervised by a ramp official — don't forget to declare any "fuel vector" requested if necessary.

A rally official must be present during refueling, and the fuel truck or self-serve pump meter must be

the fuel truck or self-serve pump meter must be covered prior to fueling.

☐ Verify that the fuel pump meter has been set to zero prior to covering.

☐ GPS DATA LOGGER SWITCHED OFF.

The pilot or copilot must remain with the aircraft until fueling is completed. When released by the ramp official, you may proceed to lunch and the FBO gathering area. Aircraft on the self-serve ramp may reposition to parking either by engine start or manual towing.

The self-serve pump uses a credit card point-of-sale system. See the contact information on page 73 for which payment methods will be accepted by the FBO. After refueling, ramp volunteers will help you reposition your aircraft by manual means, or gas/electric tow from the FBO, to the primary parking tiedown area.

Free bottled water is available, immediately outside the entrance door to the airport lounge. In the FBO hangar, EAA Chapter 688 will have a lunch available for pilots and crew.

Free wireless internet access and a flight briefing room are available in the FBO for updating weather briefings and flight plans. Contact the FBO staff for wireless network connection parameters if necessary.

MONTEVIDEO DEPARTURE PROCEDURES

	Copy AWOS on 111.6 (VOR) before engine start.
	Rally Score Sheet ("Fuel and Time Estimate Log") inside cockpit.
	GPS DATA LOGGER SWITCHED ON.
	Expect Runway 32 in use for departures. Use normal uncontrolled airport radio procedures on UNICOM 122.8 once the airplane is moving.
CA	UTION FOR SIMULTANEOUS ARRIVALS AND DEPARTURES ON 32.
After c	ompleting your run-up:
	Transponder on to 1250 with ALT.
	Taxi up to and HOLD SHORT of 32. Similar to the procedure used at Hayward, the departure timers will signal you onto the runway to hold for takeoff.
	The rally starting official will raise a flag indicating ten (10) seconds to go, then raise another hand and count down the final five seconds with a finger count. At the drop of the flag the clock is running for your flight, and you should start your takeoff run.
	All departures should make a right crosswind departure to remain clear of rally traffic arriving from the south.
	Proceed on course to the <deleted> checkpoint.</deleted>
	Continue monitoring UNICOM 122.8 until 10 miles southeast of MVE.
	Continue to next page.

- ☐ When clear of the Montevideo area to the southeast, monitor the air-to-air frequency 122.75.
- Review your ETA to Madison on page 75, and update your Flight Plan with FSS if necessary.

Continue to next page.



MVE – MSN CHECKPOINTS

Optional Bonus Checkpoint B-6	<deleted></deleted>
Checkpoint 16	<deleted></deleted>

OPTIONAL FUEL STOP AT ALBERT LEA (AEL)

Only for crews previously declaring a requirement for refueling based on limited range of their aircraft.

Continue to next page.

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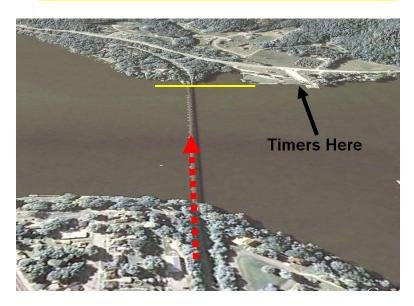
☐ Checkpoint 17	<deleted></deleted>
☐ Checkpoint 18	<deleted></deleted>
☐ From <deleted>, proceed to Re 31.55' W089° 59.00') for start approach.</deleted>	

MADISON ARRIVAL TIMING

PAUL Lat 43° 22.027' Spot Elevation Frequency 122.75 Long 089° 37.111' ~775'

The timing line is at Lake Wisconsin, at the south end of a railroad bridge. The line extends essentially east-west, and extends from the bridge south end to the boat launching ramp area to the west. Fly a pass along the bridge, north to south. The timing line is approximately 18 nautical miles from Madison Dane County Regional Airport.

Required altitude over the timing line is 1,800' MSL.



MADISON TIMING (Paul) APPROACH

From Reedsburg, fly to Thiessen Field (34WI) at N43° 25.07', W089° 45.92'. Recommend 2,700' MSL crossing Thiessen. At Thiessen, you are approximately seven miles from the timing line. Refer to the diagram on the next page.

Turning inbound from Reedsburg, copy the Madison ATIS on 124.65.
Approaching Thiessen: Call the timers on 122.75. Example "Checkpoint Paul, Race Two Zero at Thiessen, seven miles, inbound for timing."
Clear of 'the hump': Landing lights on, and report to timers. Example "Checkpoint Paul, Race Two Zero is three miles, lights on."
Descend now to final timing line crossing altitude of 1,800' MSL.
One (1) mile from Paul, prior to starting across the water: Report to timers. Example "Checkpoint Paul, Race Two Zero is one mile for timing."

The Paul timing line is the south end of the railroad bridge, and extends to the boat launching ramp to your right (west).

DO NOT OVERFLY THE TIMERS! The timers will be to the west (right) of the bridge. Please cross the timing line at 1,800' MSL.

When you cross the timing line, the timing officials should confirm on 122.75 that they have recorded your time. They will not report your actual clock time; only an acknowledgement that your time has been recorded will be made.

'Paul' Approach Views next page Checklist continues on page 91

PAUL APPROACH VIEWS





MADISON AIRPORT ARRIVAL

At the Paul timing line you are approximately (18) miles from Madison Dane County Regional Airport.

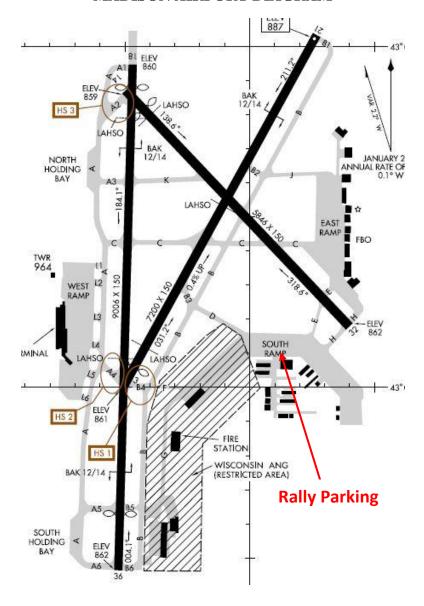
- Departing Paul, continue straight out, climb to 2,500' MSL or above, and fly heading 140°.
- □ Contact Madison Approach on 135.45. Report your position and that you are inbound for landing with the current ATIS. Example "Madison Approach, Race Two Zero, a Cessna 172, departing Lake Wisconsin with (Charlie) for landing."

DO NOT PROCEED INTO CLASS C AIRSPACE UNTIL ATC COMMUNICATIONS ARE ESTABLISHED. IF NECESSARY, HOLD OUTSIDE CLASS C UNTIL ATC ACKNOWLEDGES YOUR CALL.

Approach will sequence rally aircraft to landing at Madison. Expect runway 18-36 to be closed for construction.



MADISON AIRPORT DIAGRAM



Any number of go-arounds, extended patterns due to traffic, etc., will not be penalized. You have already been timed and you can request a fuel vector adjustment prior to fueling with a ramp official present.

Rally parking is on the 'South Ramp'. Exercise caution for a large amount of pedestrian and vehicle traffic on the 'East Ramp' due to a public event. When exiting the runway, look for ramp officials to guide you to parking. All fueling at MSN is from trucks.

When you are parked and out of the airplane, you will be met by a ramp official and a fuel truck. Fueling must be supervised by a ramp official – don't forget to declare any "fuel vector" requested if necessary.

"Prohibited cockpit equipment" status will be verified on ramp arrival.
A race official must be present during refueling, and the truck fuel meter must be covered prior to fueling.
Verify that the truck fuel meter has been set to zero prior to covering.

The pilot or copilot must remain with the aircraft until fueling is completed. When fueling is complete, you will be expected to complete your third day rally scoring form including all your checkpoint answers. The ramp official will then collect the GPS logging device and the final scoring copy, leaving you with a pink copy for your records.

Please be prepared to pay for your fuel at the truck on the ramp. Payment methods accepted by this FBO are listed on page 73.

Continue to next page

- ☐ Is your Flight Plan closed? You should close your flight plan with FSS prior to landing at MSN, or using normal procedures after landing. The airport and FBO staff will not close rally flight plans on arrival.
- ☐ GPS DATA LOGGER SWITCHED OFF.
- ☐ Continue your watch on Central Time.

Courtesy transportation to the hotel is available; ask any ramp volunteer for directions.

Please take everything you will need at the hotel at this time, including your remaining pink copy of the rally scoring form.

The south parking ramp at MSN is accessible 24 hours daily. Use vehicle gate 21 or pedestrian gates Delta or Echo to access the ramp; call the FBO when at the gate for remote access (608) 268-5000.

Crowne Plaza Hotel: The shuttles will drop you at the main entrance. Proceed to the Front Desk where there will be a special check-in line for the Rally. The most current information about the Hospitality Suite will be provided at check-in.



MADISON ACTIVITY INFORMATION

HOSPITALITY SUITE

Rooms TBD, Crowne Plaza Hotel 4402 East Washington Avenue Madison, WI 53704

Open Saturday: 1500 – 2200 CDT

SUNDAY DEPARTURE - OSHKOSH ARRIVAL BRIEFING (BREAKFAST INCLUDED)

Crowne Plaza Hotel, Wingra/Monona Meeting Rooms Breakfast starts 0830 Briefing 0845

HOTEL DEPARTURE

Shuttles will be available at the front of the hotel. Please check-out of the hotel at the front desk or on your room television before going to the airport. Please allow the first planned rally departures to use the first shuttles.

HELP WANTED

Get in on the planning effort for the 2015 Hayward Air Rally! Here is a prime opportunity to pad your resume with non-profit organization expertise. Yes, we even pay you .. well, sort of. Contact Chris Verbil for more details.



ROLL THE CREDITS, PLEASE

The Hayward Air Rally is only possible through the generous help of all our friends in the community. Although rally entrant fees pay for much of the logistics involved in an event of this scope, we receive a significant amount of financial support each year from the City of Hayward, as a line budget item under the Airport Department.

We rely on the City for their continued support and guidance, and we depend on the pilot community at large to continue to grow the Rally in size and also expand our youth EAA camp scholarship program. A portion of your entry fees are considered a tax-deductible contribution to our scholarship fund.

Not all donors and sponsors get mentioned in this POH due to our printing deadline. In addition to the City of Hayward, the known donors and sponsors at the time of printing are listed below.

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