2023 Hayward Air Rally
Course Handbook

Race / Crew Number: _____

Pilot ❑ Copilot ❑

TABLE OF CONTENTS

WELCOME and INTRODUCTION 3
EVENT SCHEDULE 4
AIR RALLY COMMITTEE AND VOLUNTEERS 5
EVENT CONTACT INFORMATION 6
RALLY ENTRY CLASSES 7
RALLY SCORING 7
ABOUT THE RALLY SCORING FORM 8
RADIO PROCEDURES 10
FLIGHT PLAN PROCEDURES 10
GENERAL CHECKPOINT INFORMATION 11
HAYWARD AIRPORT DIAGRAM 12
HWD DEPARTURE PROCEDURES 13
HWD DEPARTURE DIAGRAM 14
COURSE CHECKPOINTS 15
CHECKPOINT HAZEL TIMING LINE 17
CHECKPOINT HAZEL APPROACH 18
LVK AIRPORT ARRIVAL 19
LVK AIRPORT DIAGRAM 20
LVK FUELING 21
ACKNOWLEDGEMENTS 21

WELCOME and INTRODUCTION

Welcome to the 2023 Hayward Air Rally!

The Hayward Air Rally is the longest continually held proficiency flying event in North America. Having grown out of a personal challenge between Hayward city officials in 1965, the rally is now in its 59th year!

This event is staged by the Hayward Air Rally, Inc., a non-profit California public benefit corporation with IRS 501(c)(3) status. The Hayward Air Rally's primary charter is to enhance general aviation safety by encouraging aircraft pilots to stay proficient in basic flight navigation and fuel management techniques.

The rally is designed to give pilots a chance to exercise their flight planning, navigation, and pilotage skills, as well as put their knowledge of their aircraft performance to the test. Beyond the competition, the event also provides rally crews ample opportunity to socialize with a group of like-minded fellow aviation enthusiasts.

Traditionally, the rally consisted of a two-leg course to a weekend destination city such as Laughlin, NV, or Bend, OR. In an effort to reduce the cost and time commitment for participants, we are trying a single-leg course this year, departing from Hayward and returning to Livermore. On the rally course around the Central Valley, there are a series of visual checkpoints that must be identified, as well as airborne timing points that must be overflown.

Prior to departure from Hayward each rally crew turns in estimates of their expected flight times (takeoff to timing points) and fuel consumption (engine start to shutdown) for the course.

Rally participants are scored on a combination of:

- Checkpoint Identification
- Matching Predicted Time
- Matching Predicted Fuel Used

This POH document is provided in printed format when you complete the inspection and check-in process after arriving at Hayward. The POH is also provided electronically as a PDF file available on the Rally website (www.hwdairrally.org) the day prior to the Rally.

 If you obtained the POH as a download from the Rally website, you may want to print some or all of this document to have with you in your aircraft. In particular, you are likely to want (need) the pages with the checkpoint identification questions and the timing line instructions.

A formal, mandatory course briefing will be conducted on Friday, May 19, 2023 at 4:00 PM at the Hayward Administration Building conference room and via internet video conference. The instructions for joining the video conference will be sent separately by email to all participants.

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

- ❑ San Francisco Sectional
- ❑ San Francisco Terminal Area (optional)

EVENT SCHEDULE

All times are PDT.

Friday, May 19

1200-1600 Early arrivals for inspection of pilot documents, installed equipment and Race numbers

On arrival proceed to the Transient ("Green") ramp. Rally volunteers will direct you to a parking spot.

1600 **MANDATORY COURSE BRIEFING** in the HWD Administration Building and via Zoom video conference - details provided by email

Saturday, May 20

0730 Participants start arriving at HWD for inspection, fueling and completion of scoring form with pre-flight estimates.

Please pay attention to control tower operating hours and runway closures in the Chart Supplement.

On arrival proceed to the Transient ("Green") ramp. Rally volunteers will direct you to a parking spot.

0930 Crew photos – at plane side.

1000 First aircraft departs on rally course, weather permitting.

A rally official will pick up your estimates after your fueling is complete. **DO NOT DEPART before turning in your estimates form to a Rally official!**

1300-1700 BBQ Lunch and social at Five Rivers Aviation, Livermore

1700 Awards presentation

1800-???? Hospitality lounge at Hampton Inn, Livermore

AIR RALLY COMMITTEE AND VOLUNTEERS

In order that you may easily recognize Committee Members and Rally Officials, they will be wearing red streamers with their nametag.

Hayward Air Rally, Inc.

President	Kim Purcell
Secretary	Sam Sun
Treasurer	Chris Verbil
Directors	Hugh Gregg, Kim Purcell, Sam Sun, Chris Verbil, Steve Verbil
Committee Members	Michal Koenig, Chris Lea, Mitzi Saylor

Volunteers

Rally Registrar	Chris Verbil
Rally Course Design	Sam Sun
Hayward Ramp Operations	Chris Lea
Livermore Ramp Operations	Michael Saboff
Hayward Ramp, Inspection, and Check-in	Reuven Lazarus, Kim Purcell, Rob Kirkpatrick
Hayward Departure Timer	Scott Allaway
New Jerusalem Arrival Timer @ Checkpoint 'Hazel'	Tom Neale
Livermore Ramp	Scott Allaway, Dan Van Dusen
Livermore BBQ and Hospitality	Pam Dyche, EAA Chapter 663, Flying Particles, Five Rivers Aviation
Zoom Video Conferencing	Hugh Gregg, Chris Lea
Photographer	Carl La Rue
Rally Artwork	Tim Purcell
Webmaster	Sam Sun
Ray Hazel Memorial Scholarship Recipients	Tram Do, Ashley Lin
Hayward Executive Airport, Manager	Douglas McNeeley
Hayward Executive Airport, Operations Supervisor	Pam Svrdlin
Hayward Executive Airport, Operations Staff	Arturo Hurtado
Hayward APP Jet Center, Manager	Tom Panico
Livermore Five Rivers Aviation, Owner	Pete Sandhu

The Hayward Air Rally Committee says **THANK YOU!** to all of our volunteers. This event would not be possible without the support and effort of this terrific group of these hard working people.

EVENT CONTACT INFORMATION

Hayward Ramp and Inspection (Chris)	(408) 483-8872
Hayward Ramp and Inspection (Kim)	(530) 409-2357
LVK Ramp Boss (Michael)	(408) 859-7422
Event Organizer / Course Designer / Official Scorer / etc. (Sam)	(858) 869-7446
Prescott FSS	122.5 via Oakland RCO, (800) WX-BRIEF
FSS Radio	122.2
FBO Information:	
HWD APP Jet Center	ASRI 129.725 or phone (510) 259-1347
LVK Five Rivers Aviation	(925) 315-4130
Lodging Information:	
Home2Suites HWD	(510) 783-0825
LaQuinta Inn HWD	(510) 732-6300
Hampton Inn LVK	(925) 606-6400

HOME 2 SUITES BY HILTON

Hayward

Hampton by HILTON

Livermore

Aircraft Spruce & Specialty Co. SINCE 1965

BrightLine Bags®

HILLER AVIATION MUSEUM

RALLY ENTRY CLASSES

There are several entry and scoring classes for the Hayward Air Rally, as follows:

- **Analog Class** – may be elected independently for time and fuel scoring. Only analog instrumentation (VORs, ADF, analog fuel flow indicators) are allowed in this class. Some aircraft equipped with digital instrumentation may compete in Analog Class by covering disallowed equipment.
- **Digital Class** – may be elected independently for time and fuel scoring. GPS, DME, and digital fuel totalizers are allowed in this class. Note that some technologically advanced aircraft may only be able to compete in digital class due to required equipment installations.
- **Non-compete Class** – This year, we are offering a non-compete class for those who would like to fly the course and have fun without the stress of competitive scoring. You will not fill out a scoresheet in non-compete class, nor receive a score, but will get your raw time data.
- **Masters Class** – A separate scoring class reserved for two-time rally winners.

RALLY SCORING

Rally participants should perform all necessary pre-flight planning for a day-VFR flight over the rally course. During your planning, you should establish a flight time estimate from the start of your takeoff roll at HWD to the airborne timing line at Checkpoint Hazel, as well as a fuel consumption estimate from engine start at HWD to shutdown at LVK.

Rally scoring is determined by points accrued for deviation from these preflight time and fuel estimates and various infractions as follows:

Time (navigation) scoring:
Analog Class: One (1) point per second of deviation from estimated time.
Digital Class: 1.5 x 1 point per second of deviation from estimated time. Standard mathematical rounding applies to the nearest whole point.

Fuel scoring:
Analog: 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. Standard mathematical rounding applies to the nearest whole point.
Digital: 1.5 x 3 points for each 0.1% fuel estimate error. Standard mathematical rounding applies to the nearest whole point.

Bonus Time scoring:
New this year, we are trying an experimental ADS-B based bonus time scoring element. Provide a time estimate from the start of your takeoff roll to the timing points at Linden and El Nido VORs. If your time as you pass the VOR is within 30 seconds of your estimate, you will receive a bonus of minus 10 points to your score. If your time is within 60 seconds, you will receive a bonus of minus 5 points.

No major course changes (turns more than 60 degrees off base course) are allowed within 5nm of the timing point. The closest approach time will be interpolated from publicly available ADS-B track data and significant course changes are likely to have unintended results.

Note that in order to be fair**, the bonus scoring element will only be applied if valid data is available for all participating aircraft**. If for any reason adequate timing data is not available for all participating aircraft, nobody will receive bonus points. Put simply, you may pursue it and find out it was of no benefit, through no fault of your own. That's one reason it's being handled as a bonus.

You are not required to provide time estimates to the bonus timing points.

Additional points are assigned for the following infractions:

Not ready for Hayward engine start at assigned time	100 points
Misidentification of a mandatory checkpoint	250 points
Orbiting within sight of airborne timing lines for any reason	300 points
Correct identification of a bonus checkpoint (not an infraction!)	Minus 20 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 fuel meter covered.

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

All points for fuel, time, checkpoints, and any 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 is a two-part scoring form, titled "Checkpoint, Fuel and Time Estimate Log". This form is printed in duplicate. Please note, *starting at the bottom* of the form:

1. TIME AND FUEL ESTIMATES - complete this section with your estimates on Saturday morning. This section of the form 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. **DO NOT DEPART** before handing this part of the scoring form to a Rally Official.

Hayward - Livermore TIME ESTIMATE
This is your estimate of elapsed time from the start of the takeoff roll at Hayward to overhead the "Hazel" timing line at the New Jerusalem airport. This estimate will include your time necessary to fly to all required checkpoints prior to crossing the timing line.

Hayward - Livermore FUEL ESTIMATE
This is your estimate of fuel that you will use flying the course, from engine start at HWD to shutdown at LVK. It should include the fuel you burn for taxi, run-up, take-off and climb, all the enroute portion, flight from "Hazel" timing line to the Livermore airport, landing, and taxi to the race ramp.

Note that the TIME estimate is from takeoff to timing line, but the FUEL estimate is necessarily from startup to shutdown.

Bonus time estimates
These are your estimates of elapsed time from the start of the takeoff roll at Hayward to the bonus timing points at Linden VOR and El Nido VOR. You do not have to provide an estimate, but doing so can't hurt and makes you eligible to receive bonus point deductions if you are correct. (Minus 10 points within 30 seconds or minus 5 if within 60 seconds.) See the additional notes in the scoring section above.

2. LIVERMORE FUEL – Livermore ramp officials will enter the amount of fuel as shown by the truck meter in Box A, a fuel truck calibration factor (Box B), and any fuel vector adjustments declared (Box D).

Fuel Correction Factor
Every fuel truck or pump used in the Rally is calibrated to ensure the quantity dispensed is reliable and consistent across all trucks. 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 truck meter amount is multiplied by the calibration factor, which results in a fuel total for scoring. All fuel scores shown on the scoring form are subject to verification and adjustment during the final scoring process.

Fuel Adjustments (Fuel vector)
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 fueling official before you start to refuel, or the fuel vector will be disallowed.

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

3. CHECKPOINTS - During the rally, you will be flying over the mandatory and bonus checkpoints listed in this Rally Course POH. At each checkpoint, you will select the most 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. It is recommended that you take a photo of each check point to prove that you successfully navigated to it in the event that you answer a question incorrectly.

Bonus checkpoints are optional. It is up to each team to determine whether the additional time and fuel is worth the effort to go to each Bonus checkpoint**. Scoring for each Bonus checkpoint is based entirely on answering the question correctly, not just locating it.** Each correctly answered Bonus checkpoint question will subtract 20 points from your score.

After all required entries and signatures are completed, the ramp official will then remove the remaining portion of the white copy.

You will have the complete last yellow page of the scoring form for your records. **Please keep your copy**, as it contains all the information pertinent to your score. In the event of incomplete records on the course, the official scorer may ask you for your copy after the rally is completed.

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. Pilots not participating 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. Keep your announcements brief and succinct.

Example: "Race Eight is approaching checkpoint one at 3,500."

Avoid circling over checkpoints, but where necessary, **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 Eight is over checkpoint two at 5,500, making left turns."

While communicating with Hayward Tower or Livermore Towers, USE YOUR RACE NUMBER. This will alert controllers for special handling.

Example: "Livermore Tower, Race Eight inbound for landing with information Alpha."

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

It is always a good idea to monitor Guard (121.50) on a second radio when you can. Please don't meow.

FLIGHT PLAN PROCEDURES

In past years, the Rally Committee filed a standard VFR Flight Plan for each participating aircraft. Because of the short turnaround time for Saturday morning arrivals and the fact that departure order and time will not be pre-determined, we will not be doing so this year.

The entire route is in radar coverage and all participating aircraft should be ADS-B Out equipped. You are encouraged to file a VFR flight plan on your own and/or use ATC flight following if you so desire.

Note that depending on the service you use to file your flight plan, VOR radial-distances may be specified in the form VORrrrddd (i.e. OAK113007) and latitude/longitudes in the form dddmmN/dddmmW (i.e. 3739N/12207W). Having said that, it may be easier to provide only a simplified route (i.e. HWD .. LIN .. HYP .. LVK) as opposed to listing every waypoint. It's up to you.

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 "Checkpoint, 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.

You are encouraged to take a photo of each checkpoint in case there is any question about whether you successfully navigated to that location.

If you feel that none of the answers are correct, take written notes of what you do see from the air. If the rally scorer 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. You may also want to monitor the CTAF of any airports that are also checkpoints.

Checkpoint diagrams and information are placed in this Rally Course POH in the correct flight order.

Latitude and longitude coordinates for some checkpoints are provided to assist you in locating them on your aeronautical charts. The coordinates provided are approximate and should not be relied on for navigation.

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 suggested overflight altitudes are stated for safety reasons. **For the airborne timing checkpoint "Hazel", a mandatory altitude is specified** so timing officials on the ground can easily identify your race aircraft.

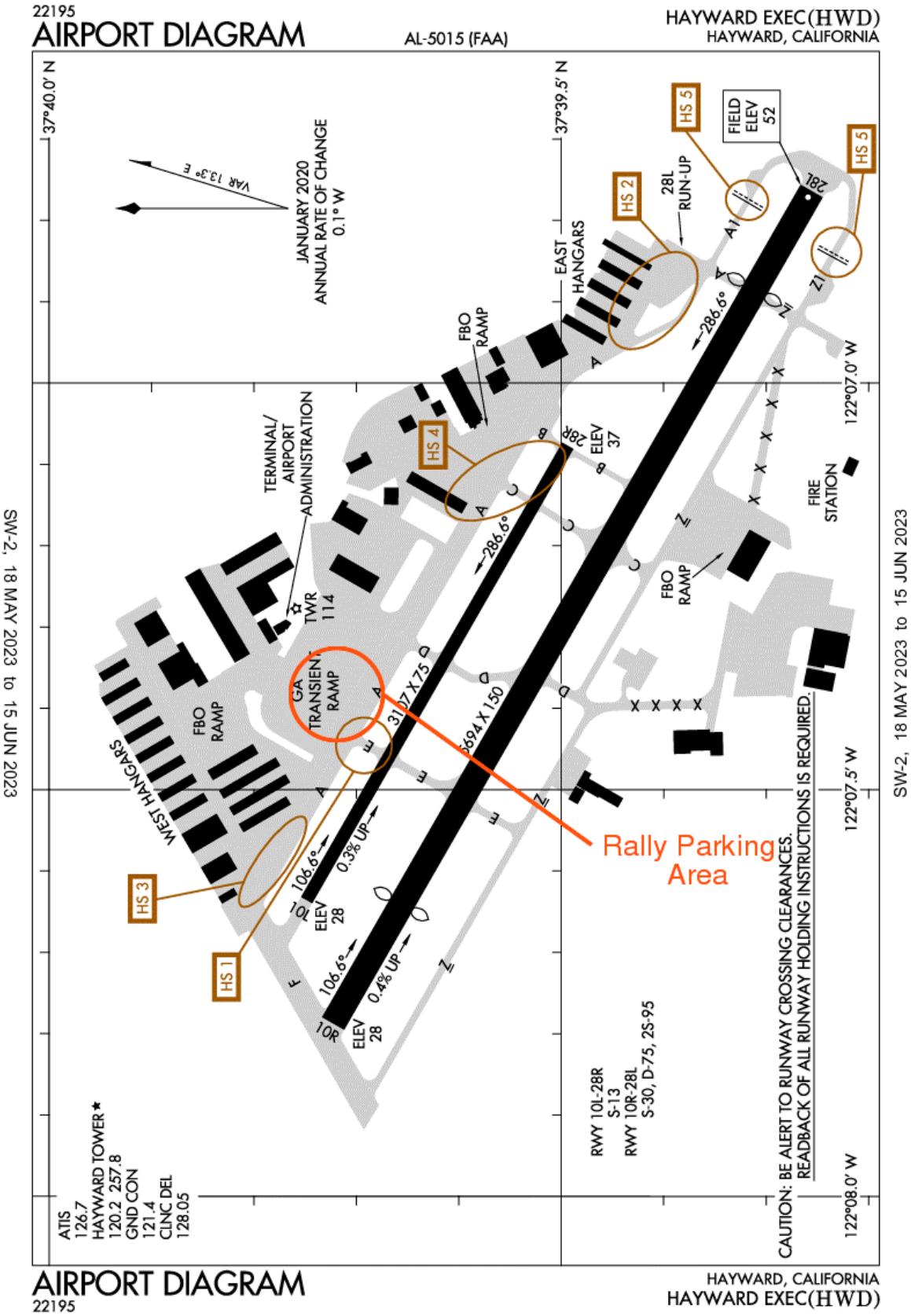
Diagrams in this document are NOT TO SCALE.

Safety in the air is up to you – the **P**ilot **I**n **C**ommand. 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.

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

If for any reason you must leave the rally due to mechanical difficulties or other problems, close or modify your flight plan (if you filed one) 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.

HAYWARD AIRPORT DIAGRAM



HWD DEPARTURE PROCEDURES

Check boxes ☑ are provided for your planning use if desired.
Crews should be at their airplanes by 0900 Saturday morning. A rally official will collect your time and fuel estimates by 0930.

Prior to engine start:

- ❑ **Rally Score Sheet bottom section collected by a Rally Official**
- ❑ **Rally Score Sheet ("Fuel and Time Estimate Log") inside cockpit**
- ❑ **Review the departure diagram on page 14.**
- ❑ **Monitor and copy ATIS – 126.7**
- ❑ **GPS DATA LOGGER SWITCHED ON or App Logging started - if you are using one.**

A Rally official will indicate when you should start the engine(s). You will also be given a signal to taxi to run-up. When directed to taxi:

- ❑ **Contact Hayward Ground – 121.4. Request taxi clearance with the ATIS.** *Example: "Hayward Ground, Race Eight ready for taxi with information Alpha."*

When you get to the run-up area, you will have plenty of time for a proper check – but be prepared to move along as we attempt to launch aircraft at one to two-minute intervals.

When you are "number one holding short", call the tower ready to depart, number one.

- ❑ **Switch to and call Hayward Tower on 118.9 (their secondary frequency)** – *"Hayward Tower, Race Eight, ready for takeoff 28R, right crosswind departure below one thousand five hundred."*
- ❑ **Transponder on to 1203 with ALT.**
- ❑ **TOWER WILL CLEAR YOU FOR TAKEOFF**.
- ❑ **Line up and wait on Runway 28R**.

The rally timers are located on the west ramp near the beginning of 28R, and are monitoring tower frequency. When they see you are in position for takeoff, they will transmit a timing call, ideally at the top or bottom of the minute (:00 or :30 seconds).

- ❑ **Listen for timing call from the timers, such as "Race Eight, MARK!" Your timing for the first (and only) leg of the rally will begin on this mark.** Start your takeoff roll at the radio call.
- ❑ **The Rally departure for 28R is a right cross wind departure**. Remain outside of the Oakland Class C in front and above you.
- ❑ Continue to monitor the tower frequency 118.9 after takeoff.
- ❑ **Proceed direct to Three Crosses (VPXES, north side of the intersection of the I580 and I238 freeways) below 1,500' MSL.** Please do not fly towards Cal State Hayward.

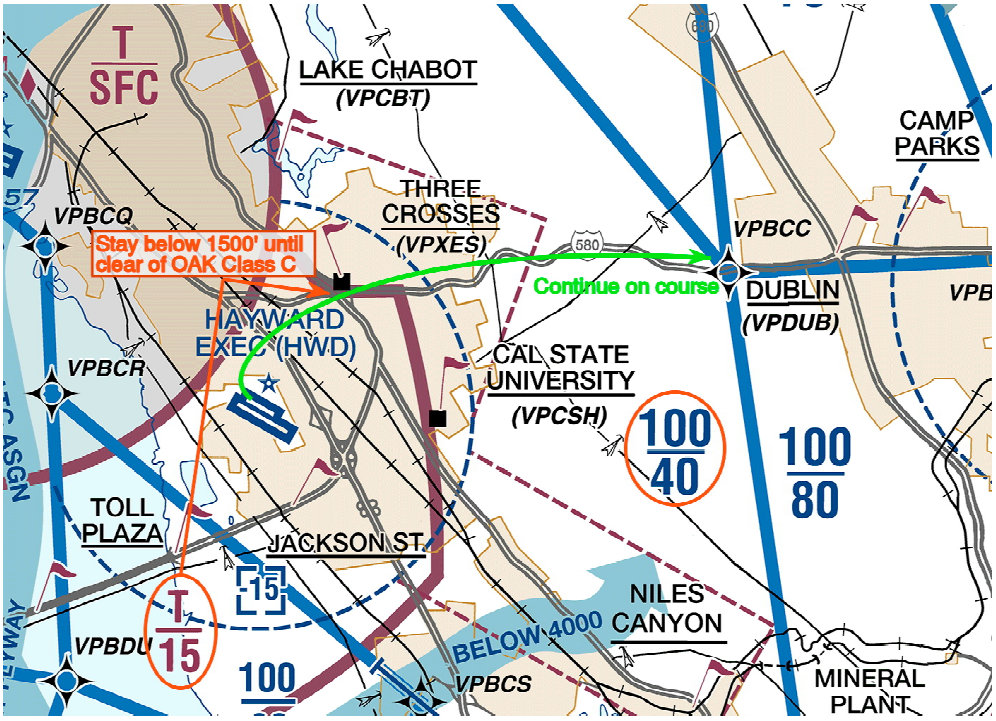
Oakland Class C airspace is 1,500' MSL and above – do not enter without establishing two-way communications with ATC (NorCal Departure on 125.35)

- ❑ Monitor Hayward Tower 118.9 until abeam Lake Chabot or you are sure you are outside the lateral boundaries of OAK Class C.
- ❑ Proceed on course to VPDUB (the I580/I680 freeway interchange). **Note the airspace ahead: Livermore Class "D": 2,900' MSL and below.**
- ❑ If you proceed to the LVK Class D, enter the LVK area above 2,900' unless clearance for lower altitude transit is received from ATC.

Livermore ATIS - 119.65 Tower - 118.1

Proceed on course to the first checkpoint

HWD DEPARTURE DIAGRAM



CAUTION

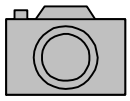
While we usually depart fastest-first to allow aircraft to spread out on the rally route, that may not be the case this year depending on the volume of Saturday morning arrivals. Be aware while on course you could be overtaken from behind by faster airplanes.

COURSE CHECKPOINTS

For traffic flow, these checkpoints should be flown in the order listed.

Checkpoint 1	**Antioch**
Elevation 131'	**Lat N 37º 58.77'**
Overfly Above 2500'	**Long W 121º 44.83'**

There are two white tanks next to the freeway here. Between the tanks and the freeway offramp to the east, there is:
A. A graded dirt lot for a housing development
B. Some paved streets with mostly empty housing lots
C. A nearly completed housing tract

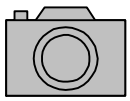


Bonus Timing Point 1	**Linden VOR**
Elevation 266'	**Lat N 38º 04.47'**
Overfly Above 2500'	**Long W 121º 00.23'**

Fly within 2 nm of VOR; no major course changes (greater than 60º) within 5 nm.

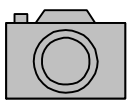
Checkpoint 2	**Football Field**
Elevation 949'	**Sorry, no GPS coordinates!**
Overfly Above 3500'	

Fly to the intersection of the LIN 046 radial and the HNW 157 radial. The football field here has:
D. A white track
E. No lettering in the end zones
F. Been painted a bright blue color



Checkpoint 3	**Chicken Ranch Casino**
Elevation 1372'	**Lat N 37º 55.58'**
Overfly Above 3500'	**Long W 120º 26.87'**

Near the white roofed casino building there is:
G. A larger/taller building under construction
H. A highway overpass under construction
J. A large dirt area being graded

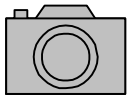


COURSE CHECKPOINTS (continued)

Checkpoint 4	**Oakdale (O27)**
Optional Bonus	
Elevation 237' (Pattern Altitude 1237')	**Lat N 37º 45.38'**
Overfly Above 2500'	**Long W 120º 48.01'**

This airport has a FRESH NEW
N. Compass rose painted on the Rwy 28 runup area
P. Painted name "OAKDALE 122.8"
R. Painted green divider between the taxiway and the east end of the ramp
S. Resurfaced ramp on south side of field

Checkpoint 5	**Flying M (CA03)**
Elevation 280'	**Lat N 37º 21.65'**
Overfly Above 2500'	**Long W 120º 17.11'**

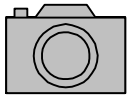


At the NORTH end of the runway:
T. There is a runup/turn around area at the very end of the runway.
U. There are runup areas on both sides of the runway, offset a short distance from the end of the runway.
V. There is no runup area.

Bonus Timing Point 2	**El Nido VOR**
Elevation 183'	**Lat N 37º 13.16'**
Overfly Above 2500'	**Long W 120º 24.01'**

Fly within 2 nm of VOR; no major course changes (greater than 60º) within 5 nm.

Checkpoint 6	**Obstruction**
Elevation 96'	**Sorry, no GPS coordinates!**
Overfly Above 2500'	



About 3nm NE of KLSN there is a charted multiple obstruction labeled "301 (203)". At this location I found:
X. One antenna
Y. Two antennas
Z. Three antennas

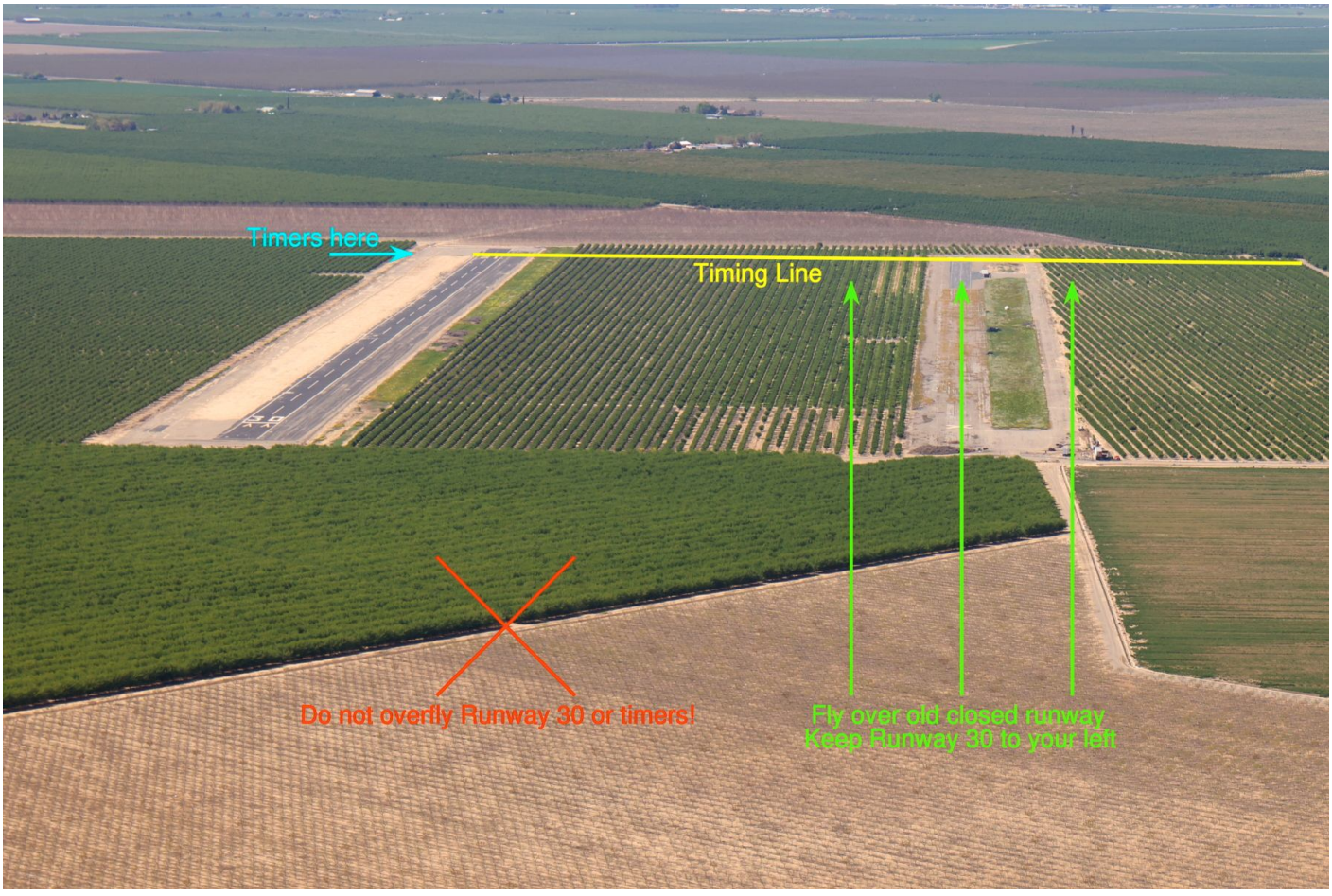
From the last checkpoint, it is recommended that you proceed to Del Mar Farms (CN99) for start of Timing Line 'Hazel' approach. Flying to Del Mar (CN99) will set you up for a 10 mile final to 1Q4 for timing.

Note TCY AWOS 118.375 is the closest weather reporting station to 1Q4.

CHECKPOINT HAZEL TIMING LINE

New Jerusalem (1Q4)	**Frequency 122.9**
Timing Line Definition & Endpoints	**Runway 12 threshold line extended to northeast:** **N 37° 40.888' W 121° 18.307' to** **N 37° 41.402' W 121° 17.557'**
Point (Intersection of timing line and old runway)	**N 37º 41.021' W 121º 18.113'**
Ground Elevation 62' **Traffic Pattern Altitude 862'** **Overfly the timing line at 862' MSL**	

The timers are located at the northwest end of Runway 30, abeam the Runway 12 threshold line. Fly over the closed runway (the far end of which is a short RC runway), keeping Runway 30 to your left. This is essentially a left downwind for Runway 12. If there happens to be traffic in the Runway 30 pattern, this flight path should keep you clear of them. Make appropriate announcements on CTAF. Required altitude over the timing line is pattern altitude, 862' MSL. **Note: There may be remote controlled aircraft operating in the vicinity of the old runway, but they are restricted to 200' and below.**



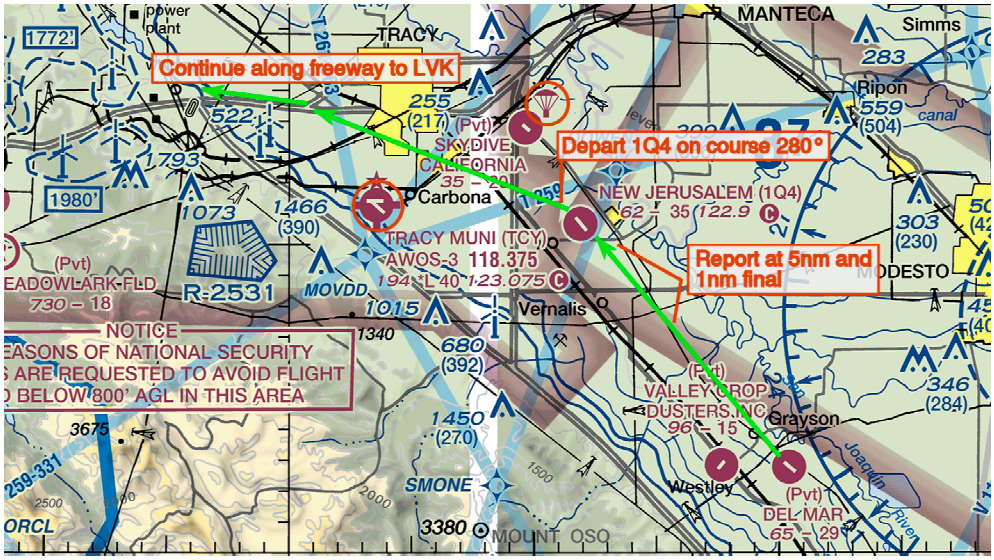
CHECKPOINT HAZEL APPROACH

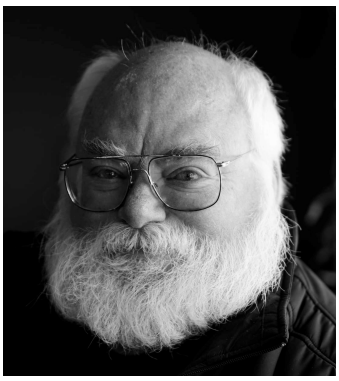
At Del Mar Farms (CN99), you are approximately 10 miles from the Hazel timing line. Refer to the diagram below.

- ❑ **Five (5) miles southeast of New Jerusalem by your estimate, call the timers on 122.9** (New Jerusalem CTAF): Landing lights on, and report to timers. *Example: "Checkpoint Hazel, Race Eight is five miles out for timing, lights on."*
- ❑ Align to the right side of the runway as soon as it is visible.
- ❑ Plan a descent to 1000' MSL prior to New Jerusalem.
- ❑ **One (1) mile prior to New Jerusalem Report to timers.** *Example: "Checkpoint Hazel, Race Eight, one mile final for timing."*

DO NOT FLY OVER THE TIMERS! They are located west of New Jerusalem's 12-30 runway, at the departure end of runway 30 (the runway 12 threshold line). Please cross the timing line at 862' MSL (pattern altitude), staying to the right side of the runway.

When you cross the timing line, the timing officials should confirm on 122.9 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.





In Memoriam: Ray Hazel, April 1, 1951 - Feb 3, 2023

This year's timing line, as well as our new scholarship program, is named in memory of Ray Hazel, a participant and volunteer with the Hayward Air Rally for more than 30 years. He first flew as a passenger in 1988, then as navigator from 1998 to 2005, winning the event in 2001. Since then, he was our veteran timing line official until his passing earlier this year. If you've flown the rally in recent years, it was likely his voice that greeted you at the final timing line. Please keep Ray's ever joyful attitude towards life in your memory.

LVK AIRPORT ARRIVAL

Leaving the timing line you are approximately twenty four (24) miles from Livermore Airport (LVK). To avoid a nearby jump zone and the traffic pattern at Tracy Airport (TCY), **it is recommended that you depart the timing line on a course of 280° and climb to at least 2000' MSL**. Upon reaching the I-205 freeway, track west towards LVK along the freeway. Copy the LVK ATIS on 119.65 and contact the tower on 118.10 when over the Altemont Pass about 10 miles out.

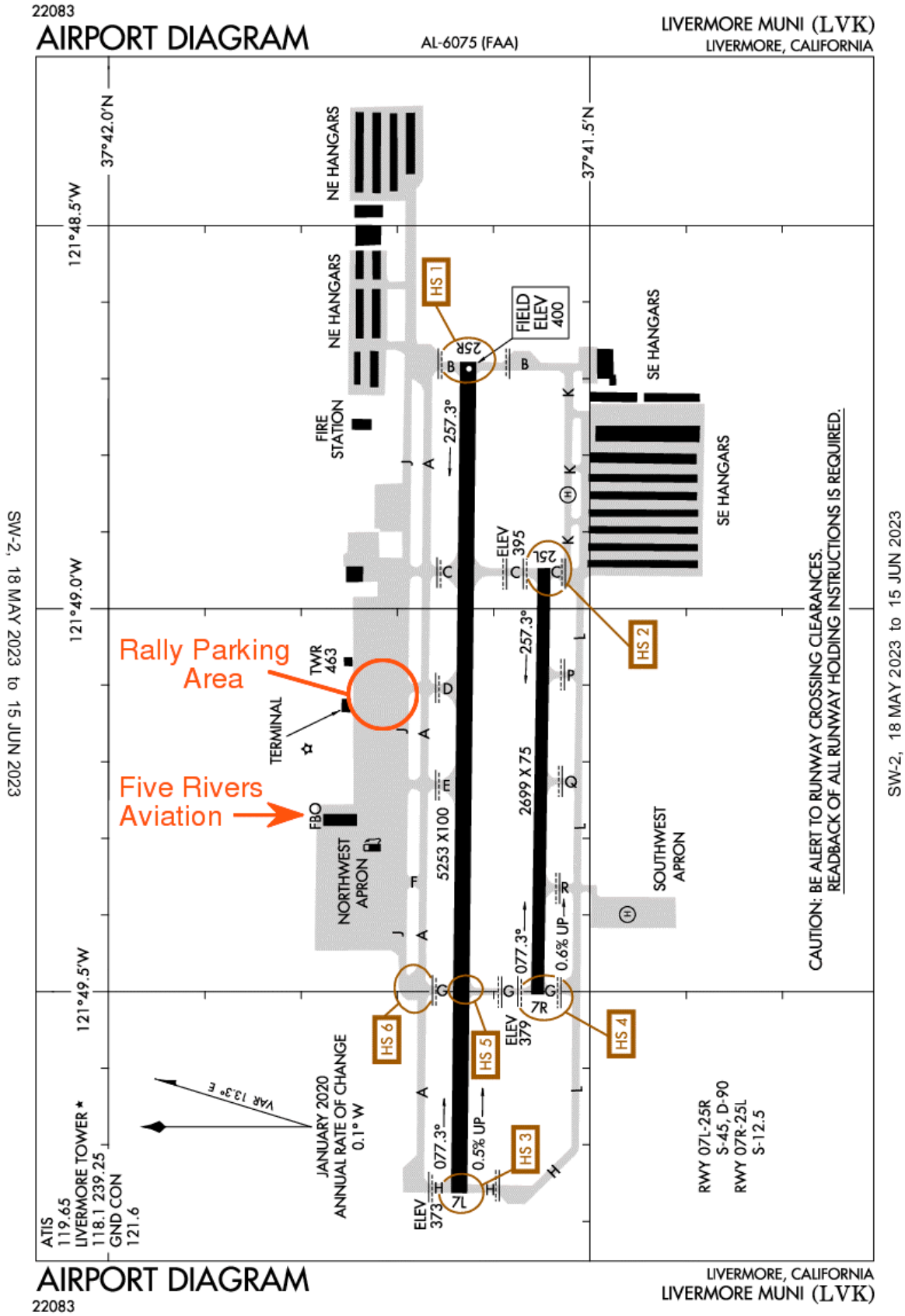
Advise the Tower that you are inbound for landing. *Example: "Livermore Tower, Race Eight, inbound from Altemont Pass with information Alpha for landing."*

Expect a straight in for Runway 25R. Pattern Altitude is 1500' MSL. Do not mistake the taxiway north of Runway 25R as a runway!

Livermore is a busy training airport and there is a chance that you could be asked to remain outside Class D for a short period if it gets busy in the middle of the day. If this happens, proceed as directed by ATC – they will handle aircraft on a first-come, first-served basis. The extra fuel you burn can be adjusted for using a "fuel vector" once you land.

Note that any 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.

LVK AIRPORT DIAGRAM



LVK FUELING

After landing, exit at the first available taxiway, unless otherwise instructed by the Livermore tower. Upon exiting the runway:

Contact Livermore Ground – 121.6. Ground will direct you to the rally parking area at the base of the tower.

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 desired "fuel vector" BEFORE starting to fuel.

- ❑ **Flight plan closed, if you filed one.**
- ❑ **GPS DATA LOGGER SWITCHED OFF or App logging stopped, if you are using one.**
- ❑ **"Prohibited cockpit equipment" status will be verified on ramp arrival.**
- ❑ **A rally official must be present during refueling, and the truck fuel meter must be covered prior to fueling.**
- ❑ **Verify that the pump fuel meter has been set to zero prior to covering.**
- ❑ **The rally official will verify that the as-fueled fuel tank configuration matches the scoring form**

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

Please pay for your fuel at the FBO counter! Then join everyone at the BBQ which should be on the west side of the FBO building.

Don't forget to remove your race numbers, if tape has been used. The sun could damage your paint if tape-applied numbers are left on the airplane.

ACKNOWLEDGEMENTS

Thank you for participating in this year's Hayward Air Rally. We sincerely hope you had an enjoyable time. Please e-mail us with your comments:info@hwdairrally.org

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

The Hayward Air Rally Committee says **THANK YOU!** to all of our volunteers and sponsors. This event would not be possible without the support and effort of this terrific group of hard working people.

HELP WANTED!

Get in on the monumental planning effort for the 2024 Hayward Air Rally. Here is a prime opportunity to pad your resume with non-profit organization expertise. Contact Kim Purcell or Sam Sun for more details.

The Hayward Air Rally is only possible through the generous help of all our friends in the community.

As you can see from the Committee and Volunteers list earlier in this document, it takes at least as many people (dozens!) to organize and run this event as compete in it!