

# High Desert Trails

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### 1. Rally Officials

#### Organizers

- **Kristopher Marciniak KI6IUC** [rally@highdeserttrails.com](mailto:rally@highdeserttrails.com) 949-680-9906
- **Christine Marciniak KI6IUE** [rally@highdeserttrails.com](mailto:rally@highdeserttrails.com) 949-680-9635

#### Stewards of the Rally

- Steward – **Jeff Hendricks**
- Chief of Tech (Scrutineering) – **Doug Nagy**
- Scoring – **Mike Gibeault, N6PYM** [mpgibeault@gmail.com](mailto:mpgibeault@gmail.com) 760-382-5160

#### Communications

- Chief of Comm – **Chris Spacone, KD6OUB** [cspacone@gmail.com](mailto:cspacone@gmail.com)
- Comm Captain Jawbone – **Dick Brown, W6SLZ**
- Comm Captain Kelso Valley – **Mike Higgins, KA6IYS**
- Comm Captain Dearborn / Piute – **Sean Reigle, AJ6B**
- Net Control - **Chris Spacone, KD6OUB**

#### Emergency Services

- Chief of EMTs - **John Emmons, KI6TED** [John@johnsetmedic.com](mailto:John@johnsetmedic.com) 626-372-2877
- EMT - **Daniel Wells, KK6AFA** 760-954-5556
- EMT - **Wes Johnson** 760-608-9450

## 2. Safety Services

### Emergency Room Hospitals

- Ridgecrest Regional Hospital
  - 1081 North China Lake Boulevard, Ridgecrest, CA
  - 760-446-3551
- Tehachapi Valley Health Care
  - 115 West E Street, Tehachapi, CA
  - 661-823-3000

### Medical Helicopter

- Mercy Air (Air Methods) Jake Warner [jwarner@airmethods.com](mailto:jwarner@airmethods.com)
  - 1220 Flight Line # 60, Mojave, CA
  - 661-824-2605

### Emergency Services

- Sheriff - Kern County - Sergeant Mauricio Marquez
  - 760-384-5858
- Fire Department - Kern County
  - 1953 State Highway 58, Mojave, CA
  - 661-824-4581

## 5. Safety Plan

### 5a. Safety before the event

Preparations for this event started in the summer of last year. The course was carefully scrutinized for potential hazards to the competitors, volunteers, and the public. We carefully considered placement of controls, radio blocks, radio locations, and start finish locations. The area of the rally was checked for good radio communication spots, and sight lines. The Kern County Roads department has driven the stages with the organizers and confirmed these locations. Every effort was made to ensure the safety of our participants and the general public.

### 5b. Communications

Overview: Amateur Radio Operators are set up along the stages and serve two very important functions:

1. They keep track of cars as they travel through the stage.
2. They physically block trails and access roads along the stage.

Radio communicators are setup at blocks or locations throughout the stage. There is no more than 3 miles between communicators. These locations report to a Communications Captain. The Comm Captain is in charge of running one stage start to finish. They are in contact with all of their communicators as well as net control. Net control is used to coordinate resources and information between stages and individual Comm Captains.

### High Desert Trails Radio Utilization

- 2m repeater for Net Control
- 2m frequency pairs (primary / backup) for each stage (2)
- GMRS / FRS frequencies for non-ham and control worker traffic
- 70cm repeater for scoring
- Radio locations and blocks have tactical callsigns

### 5c. Stage setup

A layered method of stage setup will be used to locate the crews, set up the arrows, and clear the stage of non-rally traffic. The process will be as follows:

1. An arrowing crew will place the arrows (the stakes will already be in place). In this process any non-rally traffic will be reminded about the rally.
2. The Communications Captain will drive the entire stage from Start to Finish dropping off ham radio operators at each road blockage.
3. Close behind the comm crews will be the Setup Team (00) which will also drive the stage, clear the route of non-rally traffic, check the staffing of all blockages and place ribboning as necessary. When the Setup Team reaches the finish control they know that the stage is properly set up from a safety standpoint.
4. The Lead Car ("0") will confirm that everything is in order by driving the stage about 40 minutes prior to the first car. However, should Lead/ Zero Car not be capable of completing the stage for some reason the stage can still be safely used because the Setup Team cleared the stage during set up.

#### **5d. Stage operation**

1. Stage operation is controlled by the Stage Co-Captains (Start Captain at the start and Finish Captain at the finish). Stopping the stage or sending the EMT's down the stage from the Start Control to deal with an emergency will be controlled by the stage's Communications Captain.
2. If start to finish communication should be lost and cannot be re-established via a relay, the Start Control will stop the stage, and consult with one of the organizers via the radio net. This is a very unlikely situation, but has been planned for.
3. As each car starts, Start Radio will inform the Finish Radio that car # \_\_ has just started. Finish Radio will log the numbers of the cars as they start, and then check them off as they arrive at the finish. Each Blockage Radio will also log the passing of each rally car, and forward that information to the Finish Radio.

If a rally car is out of sequence (based on the order they started the stage):

Finish Radio checks with the next rally cars to arrive to see if they know anything about the missing car (spotted a DOT triangle, etc.). If any of the three teams following the missing car report that the missing competitors are uninjured, the stage will continue without interruption.

If the rally car is unaccounted for, Finish Radio alerts the Finish Captain and Start Radio that a car is missing. The Start Control then tells the next rally car starting to look for the missing car on the stage. Regardless of whether that car (starting the stage) arrives with his report or not, after the THIRD rally car arrives at the finish without seeing any sign of the missing car, the Communications Captain will STOP THE STAGE and tell Start Radio to dispatch the EMT's at once to search for the missing crew. Start Radio will be prepared to accompany the EMT's to facilitate communications with NC if needed, leaving the Start Control personnel to keep the road blocked. When the EMT's find the missing crew, they will report directly via radio to Net Control if a medical emergency exists. If there is no medical emergency they will report to the Comm Captain. If the missing car is accounted for and merely delayed (flat, overheating, etc) the Finish Radio crew will relay the cause of the problem to the Clerk of the Course via the Net Control.

For the last few cars on the road HDT will modify the car tracking procedure to allow a stage stoppage and an EMT to be requested if none of the remaining cars have seen the missing car (as opposed to waiting for three cars, when there are no longer three left to come). The same thing will happen if the car tracking net determines that the last car appears to be missing (as opposed to running slowly). If the Course Closing car

and EMT are on the course when the stage is stopped and an EMT is requested, the Course Closing Car and EMT will proceed immediately and will no longer wait for stalled cars to exceed their time bar. If this should happen, rule 2.16.8 (NASA General Regulations) will be invoked. The distinction between this approach and the one outlined in the Ops Manual is that under normal conditions the Course Closing car will not pass a rally car until the team has either surrendered their time card or exceeded time bar for that stage.

In the case of an injury-accident, the procedures detailed in below: 6. Emergency Procedures will be followed.

### **5e. Stage closing**

A layered method of stage closing will be used to identify which teams have DNF'd, assist crews that have DNF'd, and reopen the road to two-way traffic. The process will be as follows:

1. The Course Closing (Green Light) vehicle will start immediately after the last competing vehicle, accompanied by the EMT assigned to that stage. Course Closing will check on the status of any competitors encountered, and report to Net Control. If the competitor is time-barred, Course Closing will declare the team to be a DNF, and collect their time card. If the team requires further assistance, it will be rendered by the sweep vehicles.
2. The Sweep teams specific to each stage will follow Course Closing (Green Light) and will assist disabled vehicles. If the stage is to be run again, only vehicles obstructing the stage will be moved at that time. The Sweep team may transport crew members to the predetermined pickup points if requested. After the final running of the stage, the sweep crews will tow DNF'd rally vehicles to the predetermined vehicle pickup points.
3. Note: Start Radio cannot leave the start until all rally cars have completed the stage or been accounted for, and Course Closing (Green Light) has been accounted for, via the radio net.

The Start Control Crew can close if:

- A) Control Closing (Green Light) leaves or,
- B) Either Stage Co-Captain declares that the stage is "closed." (Ex: stage cancellation)

4. Blockage Control crews can close if:

- A) The Control Closing (Green Light) car passes or,
- B) Either Stage Co-Captain declares that the stage is "closed."

5. The Finish Control Crew can close if:

- A) Control Closing (Green Light) has finished the stage and all rally cars have been accounted for at the Finish Control, in which case the Finish Captain can declare the stage "closed" and all crews can leave.
- B) Course Closing (Green Light) determines that all of the missing rally cars are DNF's (by collecting the competitors' scorecards), in which case either Stage Co-Captain can declare the stage "closed" and all crews can leave.

6. Sweep Vehicles following a ways behind Course Closing (Green Light) will need to proceed cautiously as blockage or control workers may be driving toward them when dismissed from their position. Use of the radio net is strongly advised for all.

## **6. Emergency Procedures**

## **I. COMPETITOR ENCOUNTERS ACCIDENT**

1. Competitor determines if there is an injury and if the team needs medical assistance.
2. Competitor gives assistance as best he can while ensuring that the next rally cars coming upon them will be safely stopped, using his own red cross and DOT triangles to stop cars.
3. Next car on the scene is sent to the next available radio location on the stage - these are marked in the stage notes.
4. Subsequently arriving cars will be parked such that the EMT's and county rescue crews will have room to drive past to get to the accident.

## **II. COMPETITOR REPORTS INJURY ACCIDENT to blockage radio or finish radio; DETAILS PASSED ON TO COMM CAPTAIN.**

Net Control will need as many of these details as possible if required to call Dispatcher:

- Nature of accident (first hand facts only - no conjecture)
- Type and severity of injuries, number injured (names and car number not to be transmitted)
- Location of accident, with mileage if possible from stage start (from stage notes)
- What rescue crews should look for at accident (nearby landmarks, flashlights, flashing light bar on EMT truck, etc.)

## **III. (1) Comm Captain, (2) Organizer, or (3) Steward (in this priority) makes decision to STOP STAGE, SEND EMT's AND HAM TO ACCIDENT, and have Net Control ALERT COUNTY DISPATCHER.**

1. Comm Captain should choose closest EMT's "upstream" of the accident, to send in. Unless EMT's are Hams, a Ham operator will should accompany them (examples: start radio, Organizer with radio, etc.).
2. Start and finish control personnel should make sure rescue vehicles will be able to enter stage (road is not blocked by vehicles); others should be allowed access only by permission from the Incident Commander.
3. Net Control will call county dispatchers directly via cellular phone using the direct line rather than 911. The backup will be via amateur radio to the Service Area. A secondary backup is a satellite phone which the Net Control has possession of.
4. While calling the county, Net Control should inform the Dispatcher of 1) the GPS coordinates for the incident if possible, and 2) the frequency that the rally EMT's will be using during rescue operations, requesting that the Dispatcher facilitate communication between the EMT's and county personnel (helicopter and ground crews).

## **IV. (1) Organizers or (2) Steward PLAN EVENT REORGANIZATION as needed.**

1. Net Control will probably be instrumental in getting Organizers/Steward onto the same frequency or may need to act as a relay.
2. Stages may be rescheduled or canceled; route changes will be provided to competitors in writing and will need to be initialed by each team.

**V. (1) EMT's or (2) Net Control COMMUNICATE WITH COUNTY HELICOPTER AND GROUND CREWS by radio throughout rescue operation.**

1. The EMT's on scene will assume Incident Command Authority until relieved by a higher EMS authority.
2. EMT's may also use handy talkies to talk to the Ham or Organizer back at their truck if they need to leave it, say, to reach a vehicle off the road.

**VI. (1) Steward or (2) an Organizer INTERFACES WITH PUBLIC regarding the accident.**

Ideally, Steward or appointed Organizer will be available by radio to anyone who has questions and should be the single point of contact for the public. This may be accomplished by using a repeater, cross-band radio acting as repeater, simplex from a good location, or Net Control as a relay.

**EMERGENCY:** Dial 911.

**7. Personnel**

**START CREW RESPONSIBILITIES:**

The Start Control crew will be responsible for three functions, timing the end of the transit (TC), assigning start times and starting the cars, and keeping non-rally traffic off the stage from the time the Setup Team/00 leaves to set up the stage until the stage is declared closed. When the Setup Team/00 leaves, the start crew will physically block the road with one or more vehicles.

**BLOCKAGE CREW RESPONSIBILITIES:**

Blockage controls will be located at all intersections on the stages and have the job of keeping non-rally traffic off the stage. All blockage controls will be equipped with amateur radio and will be part of the communications net for that stage.

**FINISH CREW RESPONSIBILITIES:**

The Finish Control has the job of timing the rally cars. In addition there will be a Finish Blockage position beyond the finish control with the job of keeping non-rally traffic out of the Finish Control area.

**SWEEP CREW RESPONSIBILITIES:**

The final sweep group vehicle will have amateur radio communications and typically will be manned by the Sweep Team Captain. Sweeps assigned to tow disabled vehicles back to the stage start should understand that they may encounter two-way traffic. The Sweep Team Captain will advise Net Control and the stage's Communications Captain of all sweep activity.

**NET CONTROL**

Net Control (NC) will be located on the highest point of Jawbone Canyon (7000 ft) +35° 23' 37", -118° 18' 17". NC will be operating on those 2 meter and 440 (70cm) frequencies used by the active stages, with an executive frequency for logistics and emergency use on 440 (70cm). NC will serve as a relay between active stages, lead car, organizers, and the service area. In the event of an emergency NC will be able to coordinate communications as needed.

#### **COMPETITOR LIAISON:**

A Competitor Liaison will be located at various Start Controls of each active stage to help deal with any problems that might occur and adjust start positions in the interest of safety.

#### **SERVICE COMMUNICATIONS:**

For DNF'd cars, Service Communications will instruct crews as to where they can safely retrieve their team's vehicle. DNF'd vehicles towed by sweep teams will be dropped off at predetermined points.

### **8. Public Safety**

Every effort was made before the event to contact and notify land-owners and traffic that a closure from **8AM** to **8PM** would occur on the day of the event. Land owners were called and signs were put in place months before the event. We worked with the Friends of Jawbone to notify riders and groups about our event. We worked closely with the Kern County Roads department who issued our permit. CHP was contracted in accordance with our permit. To further ensure the safety of the public and the competitors we will have each stage traveled completely at least four different times prior to the rally cars. First the Arrowing Team will place arrows on the (pre-placed) stakes for turns and hazards. Then the Comm Captain will travel the course while placing the road blockages. Then the Setup Team (00) while setting up the stage (about 90 minutes ahead of the first car). Then the Lead Car (0) will travel the stage about 30 - 45 minutes ahead of the first car.

#### **8a. Traffic control**

Non-rally traffic is kept off stage portions of the rally for a period of about 90 minutes prior to the first contestant passing until the Course Closing (Green Light) car has passed. There are three ways of controlling this traffic. (1) Start Controls at the beginning of the stage, (2) Finish controls at the end of the stage, and (3) Blockage Controls at any side roads where non-rally traffic might access the stage. Finish Controls and appropriate Start Controls will have a dedicated road blockage crew ("Start or Finish Blockage") a short distance from the normal control zone. Both types of blockage controls will physically block the road with their vehicles. All of the controls will have a copy of the permit from Kern County authorizing them to regulate the traffic on the rally route. All Start, Finish and Blockage control locations are shown on the course map. In the extremely rare case where a civilian must access the stage road, the rally cars are held at the Start Control until the stage is clear and then the civilian is tracked down the stage until he/she departs it, when the stage can be resumed.

#### **8b. Spectator areas**

This is not a public or open spectator event. However, participants will make their cars available for public viewing at the Service Area on the morning before the event begins @ 9:30am Parc Exposé, during the service breaks in the middle of the day, and at the finish around 6:45pm.

- The rally is prepared for unplanned spectators to show up at various controlled intersections throughout the route. People that stay as unplanned spectators will be asked to sign the NASA Rally Sport Waiver and will be kept at least 50 feet away from the course.

- Controlled intersections or blocks are in radio communication with Net Control. Marshals will be relocated if necessary and the rally may be stopped should a problem present itself. In 2011, 2012, and 2013, only a handful of curious onlookers came by.

### **8c. Emergency personnel and facilities**

Each active stage will have EMTs and rescue equipment, positioned at the Start Control. They can transport injured victims to the closest access point for ambulance or helicopter pick up.

In the case of an injury accident Net Control will call the county dispatcher directly by cellular phone who will dispatch either an ambulance from Ridgecrest or Mohave, or if necessary, a helicopter or mountain rescue crew.

### **8d. Fire safety**

Competition vehicles carry a minimum of 10lbs worth of chemical fire extinguishers (typically 2 5lb units)

Competitors are highly encouraged to carry a shovel. In the event of a fire, evacuation routes will be determined by the appropriate fire official and conveyed to Net Control which will relay the information to the affected areas.