

Safety Plan

for [Dutchman Flat National O Championships, 27–28 Aug 2005]

Overview

Summary: This document contains the Safety Plan, a list of key safety personnel, and communications considerations for the [2005 USOF National Individual Championships at Bend, Oregon (“Dutchman Flat”)]. The document is designed for staff planning and reference.

The plan includes information on Prevention, First Aid, the Medical Team, Search and Rescue (“SAR”), Ambulance, Police, Fire, and Evacuation. See the headings below.

Sources, standards, principal author: This Safety Plan is designed to satisfy the “Checklist for USOF A-Meets,” items #36 and #44¹; the Plan has been prepared in consultation with the “Sample Emergency Plan for Meet Directors.”² The principal author is [Philip Kollas of CROC], Safety Officer for the Champs. The plan further incorporates the [Columbia River Orienteering Club (“CROC”) Safety Procedure Policy³]-which also applies at this meet. See Attachment 2.

Key Safety Personnel

Safety Officer, SAR Coordinator, 1st-Aid Coordinator: [Philip Kollas, EMT-B]
RN: [Name]

Paramedics and primary SAR team: [Names, affiliation]

Remote (mid-course) aid station EMT: [Name]

Secondary resources: volunteer search personnel—[Name] and other staff members, as needed to supplement the [primary SAR team]

Also, on call: [locality] Fire & Rescue; [locality] County Sheriff’s SAR team

PLAN Step 1: Prevention

Weather Forecasts: To allow preparation for the day’s expected weather, the Champs staff will provide daily morning postings and will provide oral updates if necessary to reduce the risk of serious inclement weather catching participants unawares. NOAA Weather Radio station [call sign and frequency] for [locality], which provides regularly updated official weather forecasts from the National Weather Service, will serve as a minimum source of information. The Safety

¹ As shown at URL <http://mywebpages.comcast.net/rshannonhouse/55-USOF.html> as of August 2005

² As shown at URL <http://mywebpages.comcast.net/rshannonhouse/SARPlan.html> as of August 2005

³ Adopted by CROC Executive Board 3-1-2004

Officer will ensure that the official forecast for the day is available to the Meet Director and Champs participants before the start of that day's events.

Safety Notices in the registration packet & on site: These will provide safety information to all participants. Standard information has been printed in the official meet Program as well as some on the [event] Web site. Additional information regarding dehydration and altitude sickness [or other local hazards] is in handout materials. Safety information will be updated on site as necessary (e.g., fire hazards, weather hazards, medical hazards such as excessive heat, unusual altitude, etc.). These on-site updates will be made available in a central area designed for maximum visibility, such as at the Start Area for the day.

Safety requirements of all competitors: The requirement for each competitor to carry a whistle, to fill out a safety card at registration, and to follow the published safety azimuth of 180° [or other as applicable] if lost on the course all contribute to prevention of long-term missing runners.

Water on the courses, for competitors: Water controls reduce the risks of dehydration. These control points are noted on the Control Descriptions (Clue Sheet).

Nurse at the Start Area aid station: Having an on-site Registered Nurse, one experienced in tending to orienteering-related ailments, provides an added measure of available prevention.

PLAN Step 2: Communications

Methods, radios, cell phones: Three types of communications between staff members will allow the other steps of this plan to work smoothly. These three are GMRS two-way radio, runner, and cell phone as emergency backup.⁴ The PJs, our primary paramedics, will use their own radios that are tuned to our frequency. Other safety personnel and general staff will use commercially available GMRS radios, which are being provided by CROC and ORCA staff.

Frequencies, ranges, radio priorities, relay hill: The primary means of communication will be GMRS radio; a few lower-powered FRS radios will also be used in certain areas. General staff usage will be on [Channel 5, sub-channel (privacy code or CTCSS) 5, i.e., 5 X 5]. The frequency for this channel is [462.6625 MHz; privacy code 79.7 Hz]. This frequency is in the shared GMRS/FRS range, allowing us to make use of some FRS units for short-range communications without the need for a second channel. Everyone will be able to talk with everyone on a single channel, whether using GMRS or FRS radio.

⁴ Cell phones do not cause interference with SportIdent control units of the more modern type (those after version 3) and can be safely used on the course if necessary for backup communications [per Evan Custer, August 2005]; [CROC's] SI units are version 8 [or other as applicable]. As an added precaution, staff should not use cell phones on the course except for emergencies, such as to contact an ambulance.

In the event a search or medical emergency arises, *all safety/medic personnel and one Meet Director* will go to [channel 3, subchannel 3 (462.6125 MHz and 74.4 Hz)]. All other traffic will remain on the general-use channel so as to leave the search comms free for emergency transmissions.

These radios have varying ranges. To provide the best comms available for the longer distances, the higher-powered radios will be assigned to those needing the greatest range. Comms between closer stations can use the medium-powered and lower-powered radios. *See Attachment I* for details.

To increase the effective range of communications into the upper reaches of the courses, the Safety Officer will maintain a relay post at his remote aid station, which is [on a prominence] roughly in the middle of the map. Tests have shown that this point can communicate with all lower points (Start & Finish Areas) by using a 3-watt GMRS radio. If communications are necessary beyond this hill, such as in an emergency search, the Safety Officer will serve as a relay between the higher search personnel and the lower staff, principally the Meet Director. At least one staff member will remain available as supplemental search person and will carry a 3-watt or higher-powered GMRS radio when so acting. No searcher will be without radio comms in his/her immediate party.

Procedures: Everyone using a radio is responsible for maintaining **fresh batteries** in his/her radio—extra batteries are available from [equipment coordinator].

Transmissions require about one full second of dead time before any speech is picked up and sent by the radio. Thus, the procedure for transmitting is this: **PRESS—PAUSE—SPEAK**. Do not simply key the mike and start talking, as the audience will not hear the first word or two.

Transmissions should each be limited to 30 seconds maximum. It is best to first establish contact (e.g., “Finish-line [staff] from Safety Officer, do you copy?”) and await a reply before undertaking any message of substance. This avoids needless blockage of air time if the intended audience is not currently available. Do not make vague calls such as “Anybody there?” This causes confusion. In initial calls to a given party, state the name or staff position you are hailing and then your own staff position or name (see example earlier in this paragraph).

To ask for a repeat of someone’s transmission, simply transmit, “Say again.” This is universally understood and is very quick.

***Loss-of-Comm procedures:* The backup plan is as follows:**

Single radio out: check batteries, replace as needed; use backup radio if necessary (may need to borrow one)

Single station does not reply: relay through anyone else (by radio or runner if necessary)

Station out—cannot transmit: send runner and, if an emergency, use cell phone. Attempt to borrow backup radio.

PLAN Step 3: First Aid

Locations, personnel: Three fixed sites (relatively speaking) and a small team of mobile medical personnel will provide a good array of locations, quick access, and capabilities.

Each day's Start Area and Finish Area will have fixed medical stations—a tent or canopy at the Start area with our RN, [name], staffing it plus a station at the Finish Area with one or more paramedics staffing it. In addition, the Finish Area medic station will be the “office” for the [paramedic] team leader, [name], who will supervise his paramedics and dispatch them as necessary. One remote aid station will be set up [at the 6,500' level on a hilltop] roughly halfway into the map, staffed by one EMT ([name]) and possibly another EMT from the [paramedic] team, as needs dictate. This hilltop is clearly marked on the map with the standard IOF symbol for “aid station.” Signs and flagging/streamers will mark the route to this hilltop aid station from [the two nearby trails].

Available services: Short of having a fully staffed Emergency Room and physician on site, we will be able to provide a good array of emergency medical services for most any reasonably anticipated incident. The [paramedic] team is highly trained and experienced in both mountain medicine and SAR. The nurse's station at the Start Area will provide for commonly anticipated needs, including but not limited to foot problems, heat exhaustion, and dehydration. The RN will move over to the Finish Area each day to join the head [paramedic] after the final starter is on the map. The remote aid station, being the highest fixed location, will also be equipped for oxygen administration and CPR needs, including an AED (defibrillator), though of course we hope not to need one. The [paramedics] have access to speedy transportation to the distant reaches of the map ([mountain bicycle, ATV if necessary for emergency fast response]).

PLAN Step 4: Ambulances, Hospitals, Police

Ground ambulance: [Locality] Fire & Rescue, 911; approximately [25 minutes away from the site]. [Locality] Fire & Rescue is aware that this event is being held at [event site].

Air ambulance: Air Life of [locality] (summoned by EMTs only); approx. [7 minutes away] by air. They can land at [event site] or, if necessary, possibly at certain other locations on the map. The Safety Officer will have a windsock at the remote aid station in case some remote area is necessary for such a landing.

Local hospital: [St Charles Medical Center], [physical address], [locality]; [driving directions]; Phone [number].

Police: [Locality] County Sheriff, 911.

PLAN Step 5: SAR

Criteria for Search or Rescue: A competitor or staff member is known to be injured or (in the case of a competitor) overdue.⁵

⁵ The Meet Director shall daily notify the Safety Officer when all runners are accounted for, whether there was a search or not (radio contact is sufficient for this purpose).

Decision to Begin Search or EMT Response: Authorizing a search is the responsibility of the Meet Director, in consultation with the Safety Officer. The Safety Officer will confer with the [paramedic] team leader and include his input in discussing the need for a search. A competitor who is one minute overdue may not need a search, but a significantly overdue competitor, particularly one who has not been seen by anyone else near the end of the course, may need a search. An EMT response to a medical emergency at a known distant location, however, can be initiated by either the Safety Officer or the [paramedic] team leader without the need for a “search” decision by the Meet Director. If the Safety Officer determines the need to contact an ambulance, he shall summon either air or ground ambulance, as indicated, by the most efficient means available.

Conduct of Search, Area(s) of Search: The Meet Director shall determine the area to be searched and the method of search, in consultation with the Safety Officer and the [paramedic] team leader. The Meet Director must give due consideration to the last known position of the missing person(s), the terrain and any hazards in that area, the length of the overdue status, and other factors (refer to Attachment 2, sections 5 and 6, for typical considerations [or as applicable per sponsoring club]). Once the search has begun, the [paramedic] team leader is in charge of all search personnel. He will remain in radio contact with the Safety Officer at minimum, who will relay necessary information to the Meet Director if the latter is out of radio range.

Personnel Involved: Primary, Secondary, and On-Call Resources will be used in that order, as directed by the Safety Officer in consultation with the [paramedic] team leader. Primary personnel are the [paramedics]; secondary personnel are staff volunteers who may be called upon to expand the search capabilities (at least one of whom will carry a GMRS radio set to the SAR channel). On-call resources include the [locality] Fire & Rescue personnel and the [locality] County Sheriff’s SAR team. If the Safety Officer determines the need to contact On-Call resources, he shall summon them by the most efficient means available.

Resolution of Search: Successful—the missing person(s) is/are found and escorted to the Finish Area. The Meet Director will advise the Safety Officer of the “found” status, who will ensure that all search personnel are so informed.

Unsuccessful at First—the missing person is not found on the first search by Primary search personnel. The Safety Officer institutes the contingency plan and calls for Secondary search personnel. At any time at the request of the [paramedic] team leader, or if the search is still not successful after inclusion of Secondary personnel, the Safety Officer will contact the On-Call resources. The Safety Officer will keep the Meet Director advised of such contacts, to allow for an efficient meeting of the On-Call resources at the site (Finish Area or other, as designated by the Meet Director).

PLAN Step 6: Fire

Fire in the immediate area of the event: Take local extinguishing actions using pre-positioned firefighting equipment; call 911 for [locality] Fire Department if necessary. Be prepared to direct the fire trucks to the proper area.

Fire approaching the event area or nearby and threatening the event: Follow the below evacuation plan.

PLAN Step 7: Evacuation (in case of forest fire or other large-scale emergency at the event site):

The Meet Director and available staff shall promptly contact all other staff and advise them of the condition and the need for an evacuation. According to the circumstances and the time available for evacuation, the Meet Director shall direct all staff personnel to assist with notifying and evacuating all event participants in their respective areas. The Meet Director should specify the area(s) to which people should rally after evacuating, to facilitate the accounting (head-count) process.

The Meet Director or Safety Officer, whoever first learns of the emergency, shall promptly notify [locality] Fire and Rescue (911) by the most efficient means available, advising them of the emergency, the exact location, and the approximate number of affected persons—especially any who might take some time to be accounted for. This could be the case if competitors are out on the map when the emergency is discovered. The Meet Director, in consultation with all available staff, shall give the Safety Officer the best available information regarding persons not yet accounted for. The Safety Officer shall keep the emergency-response personnel apprised of such persons and the efforts underway by staff to rescue such persons.

Attachments:

1. Communications Planning Guide: Radio Assignments; Staff Phone Nos.
1.5. Pocket Card w/ Safety Phone numbers, Radio Freqs, etc.
2. CROC [or sponsoring club's] Safety Procedure Policy

Attachment 1:

Communications Planning Guide for [USOF Champs, Aug 2005 (Bend, Oregon)]

Equipment: List of radios, by type & power (names / priorities / source, including loan):

<u>Location</u>	<u>Radios needed</u>	<u>Power needed</u>	
Registration / parking lot	1	Low	(Loaned from [name])
Start line	1	Med	(Could be loaned from [name])
Finish line	1	High	(loaned from [name])
Directors: [names]	2	High	([name's] radios)
Nurse station @ base	1	Low	(Loaned from [name])
Remote aid station	1	High	([name] is bringing own 3-watters)
[paramedic], @ base	1 (spare)	High	
[paramedic], @ base	1	V. High	(bringing their own PRC 144s)
[paramedic], roaming	1	V. High	(bringing their own PRC 144s)
Emergency staffers ([names])	2	High/med	(loaned from [names])
Spares	2 (?)	High (1); Med (1)	. . . <i>If possible</i>
Total:	14	(12 GMRS)	

Power ranges:

Low = **FRS** (0.5 watt)

Med = 2 watts

High = 3 or 4 watts

V. High = 5 watts

GMRS

List of staff & phone numbers:

[names]

[numbers]



Attachment 1.5:
Pocket-Sized Card (laminated if possible:)

Key Safety Personnel

[names & cell-phone numbers]

Radio Channels & Frequencies

[general-use channel and SAR channel; frequencies]

SAR Procedures [and Other Procedures as desired]

[brief summary]

Attachment 2:

[CROC] Safety Procedure Policy [copied verbatim]

In order to better ensure the safety of our club members and event participants, the [Columbia River Orienteering Club (CROC)] has established the following safety policy:

1) At event registration:

- a. **ALL** event participants will read and sign a liability waiver form. All participants will provide a legible name, address, phone number, car license plate number and an emergency contact on their event registration form.
- b. All teams will be informed at the registration table of the event time limit. *Unless otherwise specified, this will typically be 3 hours on their course or a 3pm hard deadline for a standard 11am to 1pm start time window.* At this designated cutoff time, teams should discontinue their course and head directly for the finish line. This cutoff time is especially important at late fall/early spring events, due to an earlier sunset time.
- c. A master map of each course will be retained for use by search personnel if required

2) At the event start line:

- a. The starter will verify that all needed information has been provided on participants' materials handed to the starter.
- b. The starter will also record each team's selected course, number of participants and start time.
- c. Each starting team will be reminded of the event cutoff time and told to report to the finish to check out even if they decide not to otherwise complete their course.

3) At the finish line:

- a. The Finish will remain manned until all the starting teams have reported back to the finish, or been otherwise accounted for.
- b. By the designated cutoff time, the finish line official should be able to report all "missing" teams, if any, to the registrar and event director. *At the meet director's discretion, experienced club members who start late due to volunteering at the event may be given extra time beyond the designated cutoff time to finish their course.*

4) Control pickup.

- a. Once the finish line official notifies the Event Director that all participants on a course have returned, the controls for that course may be picked up. Care must be taken that no controls used by another course are removed.
- b. Upon expiration of the time, limit, control pickup should begin. Controls should be picked up in the order the participants followed (unless all participants are accounted for). *This should locate any stragglers and move them along to the finish.*

5) Missing teams procedure:

- a. All nearby parking facilities should be searched for the car license number listed on the missing team's registration materials. If a car is found, assume that the team has not yet returned. See section 6 below.
- b. If no car is found, call the telephone number(s) listed on the missing team's registration form. If the team can be located at home or by cell phone, then they are

- no longer considered missing. Such teams should be reminded of our finish line policy. **All teams must check out at the finish prior to departure.**
- c. If the team still cannot be found, only then should the emergency contact information be used. The contact may be able to provide details about the team's plans after the event, additional locations where they can be located, etc. Avoid alarming the emergency contact - there is no need worry them, as the team has likely left the orienteering venue, we are simply trying to locate them at this point. (After reasonable efforts and time has passed) **ONLY** if there is sufficient uncertainty as to a team's whereabouts (including incomplete registration information leading to not being able to adequately identify their car nearby) should local authorities be involved. Call 911 and report the circumstances and nature of the missing party to the police. You may be able to obtain information or help from the police to better identify which (if any) of nearby cars belong to the missing team based on their name & address, for example.

6) Search and Rescue.

It is the Event Director's responsibility to determine when sufficient time has passed to initiate a search for a missing team. Just because their car remains at the orienteering site does not mean a team is still on their course - they may have forgotten the cutoff deadline/finish reminders and simply be enjoying other portions of the park. Event officials should continue to monitor the team's parked vehicle(s).

- a. One or (preferably) more experienced club members should be sent out on the missing team's course (both forward and backward) in an attempt to locate the team. If they are found, they must be informed of the cutoff time and immediately brought back to the finish area. At least one club member (preferably the meet director) should remain at the finish area to coordinate search and finish efforts.
- b. If the missing team is not found after a sufficient search effort, then 911 should be called and a formal search initiated with the proper authorities involved. Event registration materials should clearly state that the costs of any official search and rescue or any medical treatment may be borne by the "missing" parties or their heirs. **NOTE:** An official on-site search should only be initiated once it has been reasonably determined that the team has not left the park and cannot be located at home or by their emergency contact.