



2004 Plano Balloon Festival Volunteer Training

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Introduction



- What are we doing here?
 - We provide safety communications for the festival
 - Our primary task is to track the balloons in all phases of their flight
- We do it because...
 - It provides an extra safety valve for the event
 - It provides good PR for the club and for Ham Radio
 - It acts as an training exercise for us
 - And because its' fun!
- We do not speak for the balloon festival

Balloon Tracking



- Field Net
 - Occurs on the launch field
 - Volunteers are on foot
 - Track balloons that fly, glow
 - Track balloon chase vehicles on and off the launch field
- Recovery Net
 - Occurs in the surrounding area
 - Volunteers are in vehicles
 - Track balloons down and deflated
 - Track when balloons have been recovered by their chase crews
- Radio nets pass traffic back and forth

04 PBF – Staff & Freqs



- Sept 17, 18, 19
- Field Coordinator
 - John Beadles, N5OOM
- Field Net Coordinator
 - Stan Lijekvist K5SRL
- Recovery Coordinator
 - Richard Phillips, KB5YBQ
- HSMM Coordinator
 - Tony Campbell, W5ADC
- APRS Coordinator
 - Justin McAllister K5EM
- Talk In
 - 147.18+, 107.2pl (talk in)
- Field Operations
 - 146.48 (primary)
 - 146.46 (secondary)
 - 146.44 (tertiary)
- Recovery Operations
 - 147.18+, 107.2pl (primary)
 - 145.35-, 100.0pl (secondary)
 - 146.74- (tertiary)
- APRS
 - 144.39

General information



- Minors must have a signed waiver
- See the back of the volunteer information sheet
- Dress for the weather
 - Mornings can be chilly and damp
 - Afternoons can be hot and sunny
 - Wear comfortable walking shoes
 - Bring leather gloves if you are working recovery
 - Bring money if eating on the field (festival food is pricey)
 - Bring any medicines you might need
 - Water!

Event T-shirts



- The festival provides some t-shirts for marking volunteers
 - We want to get the t-shirts out so that we can mark our volunteers
 - However - we have more volunteers than t-shirts
 - Staff who are already committed to work most all weekend get first cut
 - The rest go to volunteers who work the most hours
 - You may not get one – sorry!
- Volunteers must sign in and out to be eligible for a t-shirt
 - If you aren't signed in and out, your time does not count toward a shirt

Required Equipment



- Field Equipment

- 2 m HT with freqs programmed
- Headset (preferably not a speaker-mike)
- Enough batteries to run all day
- Small flashlight
- Orange safety vest (some will be available on the field)
- Water resistant boots
- Jacket or raincoat
- Any medicines
- Cash for food
- Water

- Recovery Equipment

- 2m mobile (2m / 440 preferred) with freqs preprogrammed
- APRS tracker optional
- Area maps (Mapscop?)
- Full tank of gas
- Snacks
- Water
- Appropriate shoes
- Binoculars
- Compass?
- Leather gloves

Daily schedule



- Mornings
 - 05:30 – Field net control shift starts
 - 06:15 – Field personnel arrive at the ops tent
 - 06:30 – Recovery crews meet at the staging area
 - 07:00 – Balloon crews arrive on field
 - 07:30 – Expected launch time (may be delayed)
 - 10:30 – Exercise complete
- Afternoon
 - Talk-in net control only
 - 11:00 – Start shift
 - 16:00 – End shift
- Evenings
 - 16:00 – Field net control shift starts
 - 16:15 – Field personnel arrive at the ops tent
 - 17:00 – Balloon crews arrive on field
 - 17:30 – Recovery crews meet at staging area
 - 17.45 – Parachute exhibition
 - 18:00 – Evening launch expected
 - 20:00 – Balloon glows
 - 21:30 – Fireworks (Saturday)
 - 22:30 - Closing

APRS



- Justin McAllister, K5EM managing
- Please use the configurations shown to the right ----->
- APRS encouraged, but not required for the Recovery teams
- An APRS digipeater will be available on the field for local operations
- Trackers needed
 - Recovery Teams
 - Balloons
 - Body Trackers
 - Festival carts
- If you are going to be using APRS, please list the SSID on your volunteer information form.

APRS Station Paths & Rates

- Balloons
 - Path: WIDE
 - Beacon Rate: 3 minutes
 - Power: < 5 Watts
- Chase
 - Path: RELAY,WIDE
 - Beacon Rate: 3 minutes
 - Power: 5 - 50 Watts
- On Field
 - Path: RELAY
 - Beacon Rate: 3 minutes
 - Power: < 5 Watts
- Comm Central
 - Path: W5GDC-15
 - Beacon Rate: 20 minutes
 - Power: 5 - 50 Watts
- On Field Digi
 - Path: W5GDC-15
 - Beacon Rate: 20 minutes
 - Power: 5 Watts

Wireless Ethernet (HSMM)



- For the second year we will put wireless ethernet at the field
- Here's your chance to play with it if you are interested.
- Managed by Tony Campbell W5ADC
- Join the NTMS-HSMM users group list at <http://groups.yahoo.com/group/ntms-hsmm/>

Festival Map



SITE MAP | 2004 Community Credit Union
Plano Balloon Festival



- Spring Creek between Jupiter and Parker will be closed from Thursday, Sept 16th to Sunday, Sept 19
- You must have festival pass to get on Spring Creek
 - Impacts the Friday morning launch
 - Also our Friday tent setup
- Spring Creek traffic will be one way from Jupiter to Parker
- All vendor access will have to enter the staff parking lot and drive one way around the amphitheater and out the vendor lot driveway

Situation Handling



- ... If it should ever become necessary for you to communicate emergency information or any other type of high priority traffic, remain calm and inform net control that you have a “situation”. Remain calm and objective and carefully answer the questions as net control asks them. Likely net control will move you to another frequency.
- ... As communication support volunteers, it is not our function to speak for the Plano Balloon Association or the Plano Balloon Festival or for emergency personnel to the media or to the general public concerning emergency situations and other high priority or confidential traffic to which our ears are privy. Refer to public/media to the Plano Balloon Festival officials. Keep quiet during and after the event.



Field Operations

Our mission: To provide the launch field net control with an accurate list of balloons launched from the field and to help maintain a high level of safety at the launch field.

Volunteer Shuttle



- Field volunteers will park offsite, be shuttled in
 - Clarence K5YO will shuttle
 - Morning – 6am to 11:30am
 - Evening – 4pm to 9pm
 - Will not be available outside these hours
 - Call the field for shuttle service
 - 147.18+ pl107.2 repeater (talk-in when not in a launch)
 - 146.48 simplex (field ops frequency)
 - Park at the northwest corner of Garden Ridge (Spring Creek & Ave K)
 - Please allow 20 – 30 mins travel time
 - If you don't get there EARLY, you may not make your shift
- If you don't take the shuttle...
 - Entry into the festival costs money
 - \$4 to \$15 depending on the pass
 - Parking costs money
 - \$5 to \$10 depending on where
 - DART shuttle bus
 - DART from Parker Road Station

Field positions



- Field Net Control
 - Tracks balloons and crews in and off the field, Collects launch status of balloons
- Field Net Liason
 - Passes field status to the recovery net, tracks the status of balloons reported by the recovery net
- Field Marshall
 - Gives the field spotters their safety briefing and directs spotters on the launch field
- Field Spotters
 - Reports balloons when they lift off the field. May be called upon to verify the status of chase vehicles
- Ramp Spotter
 - Reports balloon chase vehicles on and off the field

Flight Operations



- Balloon flight operations are controlled by a flight ops staff. The staff determines what kind of event will be held and will watch current weather conditions to determine if the balloons can fly.
- Flight status is marked by a flag flown at the pilots briefing location on field.
 - Green – The field is open for flights
 - Amber – Balloons may inflate and fly with launch director approval
 - Red
 - Pink
 - Black – The field is closed for flight
- Balloons cannot launch until they have been given permission by one of the launch directors on the field. These launch directors wear black and white striped “umpire” type shirts. By watching their activity on the field, you can often determine which balloons will probably launch next.
- Balloonists and their crews on the field sometimes mistake hams with their radios and vests as launch directors. **NO HAM CAN GIVE ANY BALLOON PERMISSION TO LAUNCH!**
- Please verify that a number banner is attached to each balloon gondola. Also, verify that the number on the banner matches the number visible on the windshield of the chase vehicles. If the balloon or chase crew does not have a number, notify the nearest launch director.

Field Spotter procedures



- Be sure to sign in and out at the ops tent when you enter or leave the festival.
 - Failure to sign in and out may keep you from getting a t-shirt.
 - Remember, we don't have enough for everybody.
- Check in with the Field Marshall at the ops tent
 - Get the safety briefing and any last flight information
 - The field marshall will tell you what he wants you to do when you are on the field
 - Get a balloon check sheet, clipboard and pencil
 - Get an orange reflective safety vest
- Check in with Field Net Control when entering or leaving the launch field
 - Where you are will determine what duties the Net Control may assign you.
- Please plan to stay on site and monitor the field frequency for the duration of your shift. Even if the launch is over, we may be called for other duties

Field Ops Voice Calls



- When the net is in operation during balloon flight ops, a lot happens very quickly.
- We have set up voice calls to minimize traffic
- Identifying
 - During flight ops, do not identify yourself when calling in a status report
 - The net control will call for all stations to identify at one time
 - Net control will tell you when
- Status Calls
 - Calling a balloon up (field spotter only)
 - Key the mike and call that balloon's number and the prosign "up".
 - Example: "12 up"
 - Calling a chase crew on the field (ramp spotter only)
 - Key the mike and call that crews' number and the prosign "on".
 - Example: "12 on"
 - Calling a chase crew off the field (ramp spotter only)
 - Key the mike and call that crews' number and the prosign "off".
 - Example: "12 off"
- Net Control Acknowledgement
 - Each time you call in a status report, net control should repeat back your status call to confirm
 - If you do not get a confirmation, just retransmit your status call
 - Please do not ask net control if he got your last call

Field Safety Guidelines



- ... No smoking on the launch field...politely inform smoker...if noncompliant, tell net control and the nearest flight director.
- ... No casual bystanders allowed on the launch field...they need to stay behind the cordons. Crew members usually wear some i.d. Casual bystanders are told politely to leave the field.
- ... Stay clear of tether straps attached from balloons to vehicles...these can be dangerous when the balloon snaps free at launch.
- ... Do not walk over lines or balloons.
- ... Be alert to crew vehicles as they move about the field.
- ... Wear an orange vest when you work the launch field. Vests are available at the net control desk.
- ... Generally try to stay aware of what's going on immediately surrounding you.

Balloon Inflating



Handling Ropes

Vehicle Tether

KD5YVL

Balloon Glows



KD5YVL

Field Do's and Don'ts



- Do check in and out of the net
- Do alert the net if you see a safety issue (fire, smoking)
- Do be calm and keep communications short and to the point
- Do call in a recheck if you don't hear your info repeated back
- Do leave the field if you hear an air horn blowing
- Don't walk over balloon tethers
 - If a tether breaks, you could be seriously injured
- Don't step on balloons
 - The fabric is fragile
- Don't smoke on the field
- Don't pester crews for giveaways

Relax!



- ... Launch field work is not a contest to see who can call in the most launched balloons. It is an exercise to see that all launched balloons are accurately accounted for.



Recovery Operations

Our mission: To provide the recovery net control with an accurate list of balloons that have been recovered by their crews and to help maintain a high level of safety in the recovery area.



Recovery positions

- Recovery Net Control
 - Tracks the status of balloons
 - Balloons down
 - Balloons down with crew
 - Balloons recovered
- Recovery teams
 - Visually identifies balloon status
 - Reports “Situations”
 - Assists in recovery where necessary

Recovery Rules



- All recovery vehicles must have two persons
 - For safety reasons, no one should chase balloons alone. *It's difficult to watch the sky and the road at the same time!* Prior to each launch, radio operators interested in participating in the chase will be directed to a gathering location for a briefing with the chase director. At this time, lone operators will be paired up for chasing.
- No motorcycles, please
 - You are too hard to see when all the other drivers are looking at the balloons
- Driver must be over 21
- Amber lights only
 - Must be legal
 - Use only when stopped
 - Reflects badly on us when misused

Recovery Net Procedures #1



- All rovers will meet at the recovery staging location
 - Location will depend on the current winds
 - NW location – Northwest corner of the Garden Ridge Mall at Spring Creek and Avenue K (next to Fujitsu)
 - SE location -
 - All volunteers (and XYLs) must sign in and sign out to be eligible for a T-shirt
- Because of communications discipline problems, we will be running a directed net this year.
 - When the balloons launch, net control will direct you where to go.
 - The recovery net may use two radio frequencies at the same time.
 - You may be asked to change frequency and check into the other net.
 - Please have all radio frequencies preprogrammed
- When a recovery operation is in progress, Field Marshalls (Chadwick Stelzl KD5UMO and Doug MacDonald W4FH) will help direct you to where you need to be.
- Please don't clump together. If more than two rovers are parked together, some balloon somewhere is left uncovered.

Recovery Net Procedures #2



- Balloons are not "down" (landed) until they deflate and the envelope is lying on the ground. Balloon pilots often will touch down in a field, only to change passengers and take off again. Check with each balloon to make sure they are down, verify that they are in communication with their ground crew, get their entry number, and indicate to them that you will call them in. Call the NCS and give them the number of the balloon that is down. *If the balloon pilot is not in communication with their ground crew, stay with the balloon until communication is established or until the ground crew arrives.*
- The balloon pilots very much appreciate our efforts in making sure that they are down safely and called in. However, it can be quite distracting to a pilot when five different radio operators walk up to them to at various times to ask if they've been called in. **PAY ATTENTION TO THE NET IN PROGRESS** and note the balloons already called in to net control. If you've already heard a balloon called in, don't disturb the balloon pilot and don't call it in again to the net.

Recovery Net Procedures #3



- There is no award for the person who calls in the most balloons!! Therefore, pay attention. If you see a radio operator already with a balloon crew, don't try to get the jump on them and call in their balloon first. There will be plenty balloons to go around.
- If anyone in the net experiences "malicious" interference, PLEASE IGNORE IT! Do not acknowledge it on the air; do not try to engage the interfering station in conversation. PRETEND IT ISN'T THERE. If the interference seriously impedes the performance of the net, the NCS will direct you how to proceed.
- Plan for delays! The balloons may not launch on time!

Communications Discipline



- Net control wants to know:
 - When a balloon is down and deflated
 - Where the balloon is located
 - When the balloon's chase crew has arrived
 - When a “situation” has occurred (call 911 if necessary)
 - When you have to leave the net
- Net control does not want to know
 - If a balloon is sitting on the ground but not deflating
 - That you just turned a corner
 - That you ran out of bubble gum
- Net control may want to know
 - If access to a downed balloon is obstructed
- Transmitting things that net control does not want to know obstructs the net

Which of these balloons are down?



Do's and Don'ts



- Do drive safely (watch the road!)
- Do obey traffic laws
- Do check in and out of the net
- Do alert the net if you see a safety issue
- Do keep communications short and to the point
- Do help the balloonists if they ask
- Don't drive without a co-pilot
- Don't trespass
- Don't smoke around the balloons
- Don't pester crews for giveaways
- Don't call a balloon in as "down" unless it's canopy is deflating"
- Don't call a balloon in unless you can see it's number