

FIS TD AND JURY LEADERSHIP VIA RADIO

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HOW TO BROADCAST YOUR INTENSIONS

ROGER, ROGER..... GIVE ME A VECTOR VICTOR...

WHAT'S THAT CLEARANCE CLARENCE...

TD: START REFEREE DO YOU READ...

START REFEREE: SURE, I MADE IT THROUGH HIGH SCHOOL

In ski racing, the radio is your most important, and most fragile, human resource tool. We depend on the radio to communicate our thoughts and important safety related commands, and when something goes wrong with the radio network, your jury becomes temporarily powerless until the problem is fixed. You will in fact spend more time exercising leadership and management skills over the Jury radio than in person. The way you use a radio your own radio personality and your understanding of the limitations that typical radio technology represents, will define how clearly and convincingly you are understood.

Modern portable two-way radios offer the ski race jury the ultimate in flexibility. There are other low cost alternatives to radio, but they have severe limitations. Examples of this include: Drums (tough to hear in windy conditions, difficult to carry), Flashing lights, Mirrors, and strategically placed Fires (affected by topography, require a special code), Flag waving (requires line of sight and a knowledge of the different flag waving techniques), two Cans and a long piece of String (tough to use while skiing and deadly on chairlifts), Mail (still limited services at most ski areas above the second intermediate). Although I am sure you have come across organizing committees who still use some of these alternatives to radios, when they work, radios are a vast improvement and hard to live without once you try them.

Radios come in a variety of types, (UHF, VHF, FM, AM, Digital Private line...) the list is endless. In my experience, like cars, there really are only two types: Those that work and those that don't. The details of how and why they work or they don't work I'll leave to those who seem to enjoy programming VCR's. My comments and suggestions are based on the simple premise that, like me turning it on and being able to communicate with specific individuals more than 20' away is all you really care about.

“Can you hear me? I can hear you...”

Having something worthwhile to say is also salient to the overall concept of having radios in the first place, content makes a difference. Once you have decided that the outside world can't live without your most recent thought, here are some simple things you can do to improve your chances that your radio will work and that you will be understood.

LEARN THE CONTROLS

Like TD's, all radios are not the same, and your ability to hear and be heard depend on your knowledge of the controls. Most important are the following:

On/Off – Volume knob: Obvious, but the volume knob only affects incoming sound and turning it up will not boost your outgoing transmission. There are a lot of radios that get classified as the “don’t work” type because they never get turned on. Sad but true.

Squelch button:

Either a knob or a switch. The squelch control filters out the background “static” noise that would otherwise be heard when the channel is not being used. Most modern radios have an automatic squelch which can be bypassed by pressing a button to momentarily release the filtering action of the squelch setting when trying to listen to weak signals that keep cutting in and out. If the radio has a knob for squelch adjustment the setting should be just past the point where the radio becomes silent. Coaches in jury meetings are not available with this feature.

Push to Talk Button (PTT): Find it, and only use it when you want to transmit. Always remember that you must wait a split second before you begin to speak after “keying” the PTT transmit button. On certain radios that are linked to a repeater network, this kick-in delay may be a long full second, and you must wait before you speak or risk having the beginning of your transmission cut off. Be Brief. When you are on air, you are tying up the channel and using battery reserves.

Channel: Make sure you know what channel is being used and set the radio correctly. The local towing company is not interested in who is on course.

Speaker Mick: The most important factor in your outgoing transmission quality is the relative position of your mouth to the radio’s built in microphone. Know where it is (not always the obvious choice) and speak directly into it at a distance of about 1 inch. Speak at a moderate pace, neither too slow nor too fast, avoid slurring your words and never shout – increasing your level will only cause distortion of your voice by the microphone. Note that higher, constant pitched voices transmit best. In very cold conditions speaking directly into the Speaker/Microphone at close range might cause the radio to ice up. In this case try to speak across the unit.

Antenna: Regardless of type or size, it will give you the best performance if placed in a vertical position. Never bend it and tape it so that it can poke you in the nose if you are wearing a chest pack. Doing this will drastically reduce radio performance, and is the reason why cars have their antennas on the roof rather than the doors.

Battery: Solar powered radios are not common and have problems operating in the dark. Most radios have a battery that is attached to either the lower half or the back of the unit. The method of attachment varies but you can be assured that it was designed by the same person who designed those “easy open” airline peanut bags. A hatchet or small chain saw might help should you decide taking the battery off would be a good idea. This of course would be useful if the battery is dead and you want to replace it with an already re-charged unit. The key word here is re-charged. Radio batteries are general Nickel Cadmium in nature, meaning that they can be recharged thousands of times, thereby avoiding the expense of purchasing new batteries. The down side is that they fail rather abruptly when they reach the end of their charge. The discharge curve is very flat until it suddenly fails. This is why your radio might work well one instant, and not the next. A weak or dead battery is the typical reason why you end up talking into an overpriced electronic paperweight rather than a functioning radio. Precautions to avoid rapid discharge include keeping the volume knob turned down, limiting the duration of your transmissions, and keeping the battery as warm as possible. Cold kills batteries. In extreme conditions keep the radio inside your jacket, or use “Hot Shots” wrapped around or taped to the

battery area of the radio. Battery contacts can be cleaned by using a pencil eraser to remove oils and residue from the connectors, a simple reason why some radios function intermittently.

INITIAL CONTACT PROCEDURES and TYPICAL MESSAGES

Proper radio technique simply translates into being understood. You will also spend less time “on the air” and subsequently leave the channel open for potentially more important messages. A typical routine contact might go like this:

TD: Finish Referee from TD, over

FR: TD, this is Finish Referee, go ahead

TD: Tom, I’m about six gates from the finish and see what looks to be course workers spreading spruce needles just above you, confirm please.

FR: Roger that is correct.

TD: Please tell them to stop. Advise them to wait for a jury decision on that. The sun is going to help us out on this one.

FR: Roger that, I’ll tell them to stop. Please say time and location of the jury meeting.

TD: Stand by, Tom.....Jury will meet at 08:45 your location, over.

FR: Roger, thank you, Finish Ref out.

TD: Thanks, Tom, and stop calling me Roger. TD out.

Strict radio procedure is only a necessity when transmission conditions are difficult. In most cases when contact is established and you have developed a rapport with your Jury member, you can dispense with the “over’s” and “do you read’s”. It is however prudent to end all contacts with “out” so that others on the channel know you are finished, and to use specific, pre-determined terminology to avoid misunderstanding.

SUGGESTED RADIO TERMINOLOGY

There is a big difference in the meaning of “GO” and “NO” but not much of a phonetic difference. Your choice of words could be confusing and cause a problem. Here are a few suggestions in terminology that will help avoid misunderstanding.

WORD OR PHRASE	INSTEAD OF	MEANING
NEGATIVE	nope	NO
THAT IS CORRECT	yup	Yes, confirm
AFFIRMATIVE	As above	As above
ROGER	AS above	As above
ACKNOWLEDGE	Eh? (CAN)	Confirm you understand
SAY AGAIN	Hunh? (USA)	Repeat last message
GO AHEAD	Yeah what	Listening, proceed with message
CORRECTION	Oops....	I made a mistake-correct version
DO YOU READ	Are ya there?	Called you once or more, please reply
STAND-BY	Wait a sec will ya	Busy, please pause for a moment
HOLD	Oh God..stop...	Hold further racers at the Start
CLEAR TO SEND	Let ‘em rip	Start or Restart the race
WILCO	Okey Dokey	Message understood, please comply
OUT		Message ended, no reply expected
OVER	Huh, Eh	Message completed, reply expected
CHECK	Got it	Understood

CONTACT	I see 'em	Visual contact at this position
CONFIRM	Is that right eh?	My version is...Is that correct?
VERIFY	Who says?	Check info with the source
READ BACK	Get it?	Repeat this message back to me
WORKS TWICE	Send every phrase twice
	Ah, Ummmmm	I have nothing of value to say

EMERGENCY PROCEDURE – KEY WORDS

Getting a message wrong about what time the box lunches are expected to arrive at the start is one thing, being able to quickly and effectively stop a racer at the start or at a yellow zone is quite another.

As leader of the Jury, you should make it crystal clear what the exact phrases, words and procedures all Jury members should use will be if essential actions are required. The Jury as a whole should discuss what these key phrases are, and this will reflect personal and regional preferences.

In all cases, use what your Jury is comfortable with and practice the procedure before the training run or race are underway. Avoid “go”, “no”, “what”, etc and demand clarity of meaning and speech from your Jury. Above all else, make sure the Start Referee can handle a radio in a professional manner and if necessary instruct him/her in what you expect. Test your Start Referee early in the event, and make certain all members of the Jury can effectively communicate with the Start Referee.

Split second reactions to messages sent to the start are incredibly important. The Start Referee by virtue of his/her topographical position relative to other Jury members at the race is also the natural relay person and might play an important role in marginal radio conditions on a long DH course.

YOU ARE NOT ALONE.....

Jury deliberations over the radio can be picked up by anyone with a radio on the same channel, and more commonly by a unit such as a frequency scanner. At a major event you can bet your bindings that your conversations are being monitored by others involved with the race. You might want to govern your on-air comments accordingly and realize that potentially controversial subjects should be discussed off the air whenever possible.

A RADIO IS NOT A TELEPHONE...

It doesn't even look like one, but some Jury members just don't understand the difference. Most of us know this and thus I will not insult you with a discussion of this basic observation. In essence, only one person can speak at a time, thus the idea of being brief and only talking when absolutely necessary.

DO'S AND DON'TS

DO

Be brief and to the point. When the race is on stay off the radio unless absolutely necessary. Listen before you begin your transmission and always wait a split-second before you speak after keying the push to talk button.

Engage brain before mouth. Think about how best to make yourself understood.

Turn down your radio before entering the start area.

Turn OFF your radio when entering the timing or results building/shack/tent/igloo/ditch.

Speak directly and clearly with an even tone into the Mic at a distance of 1 inch.
Acknowledge the receipt of all messages directed to you regardless of how trivial.
Keep the battery as warm as possible to improve performance.

DON'TS

Talk too much. Only speak when absolutely necessary. Safety information must take priority.

Use "OVER and OUT". You can either expect a reply ("Over") or finished and clear the channel ("Out"), not both simultaneously. A dead give-away you're an amateur.

Swear. Good advice in general, but common sense on an open radio channel.

Loose the radio. If you do, get two other radios on the same channel, place them face to face and key one of the Push to Talk Buttons. This will produce a howling feedback on the open channel and might allow you to find that radio somewhere in the snow, or in the lodge.

Shout into the radio. Useless. Only distorts the resulting transmission.

Turn Up the volume max. Drains the battery and cause distortion. Has no effect on outgoing transmission quality.

Abuse the antenna. Break it and you have an effective range of 10 feet.

Happy communicating.....Ted, Out.