

STAC RF Awareness Sub-Committee Notes

Meeting: June 22, 2016; 2:00 p.m.-3:00 p.m.



Structure, Tower &
Antenna Council
Conseil des structures,
pylônes et antennes

Next Call: TBD

DIAL IN INFO: Toll-free: 1-866-234-0247; Local (Toronto): 416-443-4589

Conference ID: 612392

Action Items:

- Committee members to send along to Nick any photos of individuals using personal monitors, if available
- Committee members to continue to add new Dos and Don'ts
- Nick to draft survey to ask what types of monitors companies are using and how many of each, as well as what types of sites people are working on (ie: FM, cell, etc ...)
 - Nick to send to group to give at least one week's comment period before distributing to respondents

Attendees:

- Nick Kyonka (STAC)
- Keith Ranney (Bell)
- Neill Harlen (Interfax)
- Deanna Spring (WSP)
- Dan Renaud (Telecon)
- Matthew Koziell (Stantec)
- Ron Aharoni (COMsolve)
- Richard Zhang (Rogers)
- Dave Ramdeane (Bell)
- Tim Dalpe (WesTower)
- Greg Gasbarre (Netricom)
- Scott Magill (TBayTel)
- Jason Bartsch (SaskTel)
- Tom Lee (Rogers)
- Nick Sarantinos (Netricom)
- Jason Wolf (WesTower)
- Edward Abt (Advantage)
- Anil Bharadwaj (Stantec)
- Bill Perry (WesTower)

Non-Member Attendee:

- Jim Acree (MVG)

Meeting Notes:

1. RF Personal Protection Project
 - a. Identification of project
 - During last meeting, Nick was asked to approach Narda distributor (Interfax) to request any information they might have about effective use of their equipment
 - Since then, Interfax has begun developing a document to address this request, and has also become a STAC Member
 - As such, we can now open up this project to additional volunteers if anyone else would like to get involved
 - b. Discussion of desired scope
 - So far, we have asked Neill to essentially draft a document that incorporates the training guidelines they provide relating to use of the Narda S3 and other personal monitors
 - Will include items like, where to position the monitor and how to affix it to your body if need be, how to ensure the continued calibration and effective operation of the devices and steps to mitigate damage
 - Nick asks what else we should be looking to include in this document and what role can there be for additional volunteers
 - Neill notes he welcomes input, particularly if other people have received or know of specific questions they'd like to see addressed

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- Committee member asks for confirmation that the Safety Code 6 sensor for the Narda S3 shows its calibration date when you plug the sensor into the main body
 - Answer: yes
 - Committee member notes that once the unit is turned on, there is a menu that can be accessed to determine the calibration date
- Committee member asks whether directions for where to wear the S3 on your body will apply to all other personal monitors
 - Answer: there are on-the-body monitors and off-the-body monitors (aka “leakage detectors”)
 - Neill says this document will define each
 - Committee member notes that if a device is designed to be used on the body, then placement on the body should be the same regardless of manufacturer
- Committee member asks whether personal monitors can be used with Yagis, push-to-talk systems, etc ... (so long as the frequency band is equal)
 - Answer: as long as a particular unit has the frequency range to cover the areas a worker is in, then they can be used for all sources of transmission
 - Committee member notes that workers may be aware of the frequencies they’re working on, but there could still be other transmissions over other frequencies in the same general area
- Committee member asks that the document address limitations of personal RF monitors: for example, if a signal is coming from behind someone when the monitor is in front of them
 - Neill says he will add that to the list of topics to address in the document
- Committee member asks what an RF monitor takes into account in terms of how it is attached to a person’s body, or can it be handheld or placed down
 - Neill says S3 was designed as an on-the-body device
 - Says that at frequencies of 100 MHz and below, when you wear it on your body, your body becomes part of the detection circuit
 - Says this model can detect frequencies that are behind the user at 100 MHz or lower
 - Notes that the backside of the S3 indicates which side should be held towards the body: says this is because the backside shields the unit so at frequencies >100MHz, the body could become a reflector and cause a false reading
 - Neill says it can still be useful to take the unit off of your body, particularly if circumstances demand it



(ie: to hold it in front of you when going through a door or over the top of a rooftop, etc...)

- But when working with frequencies of 100MHz or lower, the unit will only detect frequencies directed at its face if not on a body that can serve as part of the circuit
- Nick notes that anyone else with questions about personal monitors or with issues that they'd like to see addressed in this document should contact info@stacouncil.ca
- Nick asks for additional volunteers, identifies need for peer reviewers
 - Neill notes that he would like photographs of people using personal monitors, if possible
 - Committee members to send along to Nick any photos of individuals using personal monitors, if available
 - Dan offers to serve as a peer review; Matthew, Dave, Greg also volunteer to help out with project

2. RF Awareness Best Practice Project

a. Approving listed Dos and Don'ts

- Several Dos and Don'ts listed on the shared Google Doc sheet that haven't yet been discussed at the committee
 - Committee member expresses concern about item that says "Do not touch an operating antenna;" says this is too restrictive, can't be followed at all times, isn't supported by a study saying this should be the case
 - Nick notes that this can still be changed even if it had been listed as confirmed during last committee meeting
 - General agreement to reword line to state that you not touch the aperture of an operating antenna
 - Keith thanks committee Mathew for raising point that committee must consider potential impact on employees and employers when drafting these bullet points: how would it be applied in the day-to-day job
 - Committee member raises concerns about item that says not to stand less than 30 cm behind an RF emitting device: says this isn't always applicable
 - Committee member says we shouldn't set distances at all because those safe distances change based on power and frequency of antenna
 - General agreement to word this line as "Do not work around operating antennas without a working personal RF monitor available" or something similar to "Be trained on and have a monitor"
 - Committee member asks whether it should include reference to always wearing a monitor
 - General agreement that this would be too broad
 - Committee member raises concerns about item that says to "always have a working and properly calibrated personal RF monitor when working on site," said it should be limited to when working with RF emitting equipment with which you're not familiar
 - General agreement that it should be when "working on sites with potentially active antennas" due to concerns that a deactivated antenna could be turned back on

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- b. Brainstorming additional Dos and Don'ts
 - General agreement with: "Do ensure you have training on the specific personal RF monitor you are using in the field"
- c. Proposed Index
 - Nick sent around the proposed index for the best practices document (including with meeting invite) and is looking for feedback
 - Nick reads through items listed in proposed index; notes that this index can be changed as need be going forward, but will serve as our initial starting point
 - Committee member raises concerns about item called "Time and Distance" under "Responding to Hot Zones" section
 - Nick notes that we do not necessarily have to describe a specific distance, but could simply talk about how distance from emissions is part of cooling down
 - General agreement to change heading to "Post-exposure response" and leaving "time and distance" in brackets for now so we know to address these items here to whatever extent possible
 - Committee member notes that we have separate sub-sections each of "towers" and "rooftops" relating to installing or working on equipment, but not for small cell or other types of locations
 - General agreement to include an "other" sub-section as well to address small cell (which will likely grow a lot in the next few years), distributed antenna systems (ie: in-building) and anything else
 - Committee member recommends that we include discussion of different frequencies in "What is RF" section and to discuss frequency attributes
 - Dan notes that there is no corresponding graph for the 2015 standards to show this, though FCC has images relating to its limits: says we would have to develop that if we wanted it
 - Nick asks what this would require: committee members say it would require graphic design to show high-frequency and low-frequency and their penetrating powers
 - Mathew says if someone can provide this information he can look into getting a graphic developed
 - Nick notes that if this is a long individual project, we can always include it in a second version of the best practice doc if we don't want to slow down the rest of the doc
 - Nick suggests a separate call to discuss development of this graphic: Dan, Mathew and Ed all ask to be included on call

3. Personal RF Monitors

- STAC still working to collect information from manufacturers to attempt to confirm that their devices can be used in accordance with SC6/15
 - Primary concern appears to be that some devices say they are calibrated to three different limits, but don't give you the option to switch between which limits the readings and alarms are tied to

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- This means a user doesn't know if their device is set to read emissions vis-à-vis SC6 as opposed to one of the other limit ranges
 - STAC Steering Committee also proposed that we should survey STAC Members to determine what other devices are being used
 - Nick to send out survey to RF Awareness committee members
 - Question as to whether we should be looking at number of devices, or just which type of devices companies are using
 - After discussion, general agreement that the survey should ask companies to confirm whether they have at least one personal monitor per working crew
 - General agreement that it is worth determining how frequently monitors are calibrated
 - Jim notes that different monitors require calibration at different intervals and each monitor should come with specific instructions
 - General agreement that we should ask how many of each monitor a company has as a figure demonstrating how many monitors need to be replaced in Canada could help convince manufacturers to provide suitable product options
 - General agreement that it's worth asking what types of sites they are working on
 - Nick to draft survey to ask what types of monitors companies are using and how many of each, as well as what types of sites people are working on (ie: FM, cell, etc ...)
 - Nick to send to group to give at least one week's comment period before distributing to respondents
4. Other business
 - Dan asks Neill which Narda monitors are SC6/15 compliant
 - Neill says Narda S3 and new RadMan Mobile
 - S3 must be calibrated every two years, not sure about RadMan Mobile yet?
 - Committee member asks whether Best Practices document will be targeted towards the public or the industry
 - Nick notes that it will be primarily targeted towards STAC Members, but could still become public given free-flowing nature of PDF attachments
 - Notes that general default position is that STAC docs will be for STAC Members as opposed to broader industry participants