

OPERATING PRACTICE

Who among us has obtained his driving license by merely taking a theoretical exam ? Nobody has.

In Belgium, until the basic ham license came along, there has never been any form of education on how to make a QSO. After the theoretical exam the newborn licensees are unleashed on the ham bands. The resulting operating was not always nice to listen to. In the analogy of taking a driver's exam, imagine you only take a theoretical exam, get your driver's license, and then you can hit the roads and drive a vehicle which you have never steered before. Well, this is exactly what is happening with hams.

During the first years as a ham the author, just as anybody else, has made mistakes (he still does, but much less). With this article he wants to give a boost to both newcomers and old-timers to quickly sound as a 'pro' on the bands. The mistakes he made originated many times by listening to the 'not so good' operating practices of some of the old-timers. They are not to blame. Clear guidelines on how to communicate on ham bands have never existed.

One must not underestimate the importance of good operating practices. In the end, all our transmissions can be intercepted by anybody, be it hams, listeners, official observers, etc. The technical aspect of our hobby is one matter. If we use our equipment and make on the air contacts, we enter the second matter, i.e. we represent our nation on the airwaves; we are very visible.

To make successful transmissions on any frequency and in any mode some simple rules must be observed. Would you please follow me in the quest for good 'Operating Practice'?

1. HAM LANGUAGE

Know the 'Ham Language'. Get acquainted with the correct Amateur Radio Language. Don't say 'Radio four', but 'readability four'. Master the phonetic alphabet, CW abbreviations, the Q code and the number code (73/88) as if they were a second mother language before getting on the air.

Always use the phonetic alphabet in a correct manner: A is Alfa, and not Alabama. This will be further discussed in chapter 8 (PILEUPS).



2. LISTEN

As a new ham you'd like to start transmitting as soon as possible, of course. Take it easy, take your time, stay away from that microphone, morsekey or keyboard. First get comfortable with ALL the functions of your transmitters/receivers before attempting any transmissions. The transmit part needs special attention, as it is here one can make his first 'on the air' mistakes.



Initially learn to LISTEN. Whoever listens at first, will be much more successful in making good and enjoyable contacts. The chapter PILEUPS deals in depth with this important issue.

3. CORRECT USE OF YOUR CALLSIGN

Use your callsign in a correct way. You have to take a serious exam in order to enjoy this hobby. Be proud of your callsign, it is unique. Only if you use it in a correct way are you making legal transmissions. Ever hear the callsign 4ZZZZ on VHF? As far as I'm aware of, we are dealing with a transmission from a station from Israel and not from Belgium. ON4ZZZZ is the correct callsign. A callsign comprises of a prefix AND a suffix. Even on the HF bands this reprehensible practice can be heard. For analogy, if your car has been stolen, will you report half of the alphanumeric of the number plate to the police, or the complete lot?



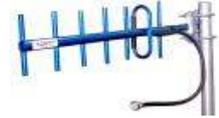


4. BE POLITE

This is the shortest but undoubtedly most important chapter in this document. At all times, be polite! Your transmitted signal is being heard by a lot of folks and agencies. We'll elaborate on this issue in the 'Conflict Situations' chapter. You'll go a long way by being polite, in our little ham world or in the outside world.

5. SOME TIPS FOR MAKING VHF/UHF REPEATER CONTACTS

A lot in the following chapters is dedicated to specific situations while chasing for DX contacts (long distance) on the HF bands. A majority of these points also apply when working on the VHF/UHF bands.



Specifically, on the VHF/UHF bands the use of repeater systems (relay stations) is primarily intended to increase the operational range of mobile and portable stations. Fixed station operators should keep this in mind. If two fixed stations can make a two-way contact without the use of a repeater, why would it be opportune for them to use a repeater for a long winded QSO?

Whoever makes use of a repeater must take into account he has not the 'monopoly' on its use. This applies in fact for contacts on all frequencies. On non-repeater frequencies the 'first come, first served' (and somehow 'keep') principle is used. On repeater systems this principle should not prevail. Everybody must get a shot at this very useful medium, especially the mobile and portable stations.

During a repeater QSO, it is a good (almost imperative) habit to leave a short pause in between 'overs'. In that way, someone else can make a quick call or intervene in the ongoing QSO. By immediately pressing the PTT (Push to Talk) button after an over, this possibility is effectively prevented. Think about it.

6. HOW TO MAKE A QSO? WHAT CAN I TALK ABOUT?

Some newcomers are astonished during their first encounters on the ham bands by the many QSOs in which only the callsigns and reports are exchanged. It doesn't have to be this way, of course. In the beginning I disliked this myself as I enjoyed long and elaborated QSOs. I was a real 'ragchewer'. There is nothing wrong with that. However, in time though I switched from long to very short QSOs. Everyone has their own preference.



Although we exercise a mainly technical hobby, our QSOs do not have to be limited to purely technical matters. A healthy balance is necessary. Radio amateurism is not intended to chit chat about groceries. Let your common sense be your guide.

Topics we must avoid include religion, politics and of course commercial advertisements. It is also forbidden to broadcast, ie. one way transmissions of either long winded announcements or music programs.

The Belgian basic license manual implements for the first time an 'Operating Practice & Procedures' chapter and explains how to make a QSO. What follows is a concise repetition and some additions:

- before commencing a transmission on a given frequency, always check thoroughly if this frequency is in use by other stations;
- if the frequency is clear, call CQ (general call -CQ possibly derives from 'I seek you'-). Pat, W5THT has the following [explanation on CQ](#) from the pre-wireless days). See Chapter 7 'How to call CQ?' which expands in detail on the proper way to CQ;
- the sequence on how to place callsigns during a contact is straightforward; first name the callsign of your counterpart, then yours. Example (you are ON4ZZZZ):

'Thanks OM, microphone back to you. ON4XXXX (de) ON4ZZZZ' (end of your transmission). An easy way to remember this: you always have to be polite.

- Always end a transmission with your callsign. If making many short transmissions during a QSO, identify with your callsign at least once every five minutes (some countries: 10 minutes);
- leave a short pause in between 'overs'. In that way, someone else can make a quick call, or intervene in the ongoing QSO. Keep in mind that one day 'you' may be the one receiving a distress call! Be ready for it.
- Do not elaborate about a zillion things during one over. Keep your transmission short and concise as to give your counterpart ample time to respond to your topics before he forgets about what you were actually talking. Remember many times you are talking to someone in a language that is not their native tongue. Give them time to comprehend what you are saying;
- on phone, say 'over' when you hand over the microphone to your counterpart. In amateur radio this is strictly not necessary, but often handy. Experience will teach you when to use 'over' and when not;
- on CW, end your transmission during a changeover with the letter K (from 'Key'). Also 'KN' can be used; this is more specific and means you only want to hear the station whose callsign you just sent to come back to you;
- on CW the end of a QSO is marked by the letter string 'SK' ('Stop Keying'). The QSO is completely finished after you sent 'SK';
- on phone a QSO is never ended with 'over and out'. Either say 'over' during a microphone handover, or say 'out' at the very end of the QSO, which is then completely finished.

Someone brought the following to my attention. As amateurs progress in their 'ham career' they seem to forget they were once newcomers themselves. Indeed, one can often hear amateurs call 'CQ DX' on the HF bands, after which they are called by a 'local' station (which is no long distance for them at that moment). Often this local operator gets a verbal beating and is left behind in disbelief or anger. This cuts both ways. The local newcomer should understand that if someone calls 'CQ DX' he shouldn't call that station at that point in time. On the other hand, the experienced ham should remember his early days when he did exactly the same because he wanted to work 'a new one', and be considerate towards the newcomer.

In such a situation I usually give a short report, log the station and tell him that I'm actually looking for DX. The newcomer usually understands the hint and will pay better attention next time, while he's still happy to have logged a new one...and that's what counts! So...give everybody a chance for a QSO and don't forget your early days!

7. HOW TO CALL CQ?

Make sure the frequency you want to use is clear. You don't do this by mere listening but also by **effectively asking** if that frequency is in use. For example, on SSB after having listened for a while, ask 'Is this frequency in use?', followed by your callsign. If no response, repeat this question, followed by your callsign. If again no response, the frequency is yours to call CQ.



On CW and RTTY send 'QRL?'. Some think a 'question mark' is sufficient. It is not as it can be confusing. If on a given frequency there is ongoing traffic (which you don't hear), someone else on that frequency may interpret your question mark as if you are asking for the callsign of a station on that frequency. A 'cop' scenario may arise (see chapter 12).

'QRL?' cannot be misinterpreted by anyone, it means you want to know if that frequency is clear for you to use. A question mark in this situation is meaningless and may mean several things.

On CW you get possibly one of the following answers if the frequency is in use:

- R (Received-Roger)
- Y (Yes)
- YES
- QSY

If by coincidence you landed on a 'hot frequency' (especially if used by a DXpedition or a rare DX station), chances exist you may get shouted at. Don't worry, don't react, just move to another frequency. Or figure out -by listening, not by asking- who the 'DX' is and work him.

Lots of problems can be avoided by following the first rule of operating (whether casual or DX): LISTEN. This golden rule used in combination with the magic word 'QRL?' will keep you out of trouble if you are looking for a clear frequency to call CQ.

- When calling CQ, don't do as follows: call CQ ten times, followed by your callsign twice and then listen. Better to do this: call CQ twice and give your callsign ten times (I exaggerate, four times is sufficient!).
- The most important aspect when calling is not the word CQ, but your callsign. If conditions aren't too good, it is important the station at the other side of the globe (yeah, cool!) hears your callsign rather than the word CQ. Too many times I've heard operators call CQ 15 times, give their call once, and then say 'listening for any call now'. This is senseless.

Practice makes perfect. If you are not experienced, listen for a while to others to sharpen your teeth. You will quickly develop your own style to make successful and pleasurable QSOs.

8. PILEUPS

Once bitten by the DX chasing bug, you will frequently enter PILEUPS. When a rare DX station appears on the bands he quickly will raise a large group of amateurs wanting to work him. At the end of a QSO the crowd starts calling the DX station instantaneously and all stations call on top of each other. This is called a 'pileup'.



Not only rare resident DX stations generate pileups. Quite often DXpeditions are organized to activate countries (entities) where ham radio is almost non-existent or to uninhabited islands. The purpose of these expeditions is to contact as many hams worldwide in a short timespan. Obviously contacts with these expeditions should be AS SHORT AS POSSIBLE in order to give as many people as possible a shot at a new one. Hence, the expedition operator is not interested in your QTH, equipment or name of your dog.

What is the best way to get as quickly as possible in the log of a rare DX station or DXpedition?



LISTEN LISTEN and then LISTEN again.

And, why should I listen? Because those not listening won't be as successful. Indeed, by careful listening an operator will have more success in breaking through a pileup and log the rare DX faster.

By listening, one gets acquainted with the behavior of the DX station and the rhythm in which he works. Also you will find out if the DX works SPLIT. During the listening period you have ample time to check and doublecheck the send and receive parts of your station:

- correct choice of antenna?
- SPLIT function activated?
- Transmitter (and amplifier) correctly tuned on a CLEAR frequency?

Often this last part is done ON the frequency of the DX station! Bad! This results in a reaction by the so called 'COPS' (see chapter 12) and spoils the pleasure of many because the DX station can't be heard anymore.

- Before making any attempt to transmit: be sure you heard the DX station's callsign correctly.

We often enter a pileup following a spot from a DX Cluster. Often the spot is incorrect! Make sure you heard the callsign of the DX correctly. This will prevent you from receiving the much feared return QSL card with the message 'NOT IN LOG', 'NON EXISTING CALL' or 'NOT ACTIVE THAT DAY'.

An experienced DX station will turn to SPLIT operation if he perceives too many stations are calling and the pileup becomes unmanageable. By working SPLIT his transmit frequency stays clear and the callers will hear him well.

A not so experienced DX station will continue working SIMPLEX and finally goes QRT because he can't control the pileup anymore.

In such a situation, you yourself can play an important role during your QSO with the DX station. Gently suggest to him the time has come to switch to SPLIT operation (of course only if there are too many callers!). The other DXers will be grateful if you manage to persuade the DX station to change to SPLIT mode!

Here are most of the different pileup situations:

Simplex

A. SSB SIMPLEX PILEUP

What is the most effective way to break through a SIMPLEX pileup (a big pileup with many stations trying to work the DX, all at the same time)?

- Wait until the previous QSO is COMPLETELY finished;
- timing is VERY important. You will have little or no success if you throw in your callsign immediately after the previous QSO.
- Wait for approximately seven seconds and give your complete callsign ONE TIME
- **LISTEN ...**



There are many variants to this approach. This is experience you will only acquire by listening very often to simplex pileups. A lot depends on the rhythm in which the DX station works, and how well or not so well he can decipher the callsigns out of the cacophony.

If you call immediately after a previous QSO finishes, your callsign will disappear in the pile of tens of others calling simultaneously. The pileup callers mostly give their callsign two, sometimes even three or four (!) times in a row. Meanwhile the DX station probably already answered one of them, but nobody hears this as some keep calling 'endlessly', without listening.

By waiting for approximately seven seconds, the moment when the majority of the pileup takes a breath, time has come for you to give your call, once. Then LISTEN.

- Give your callsign relatively fast. 'Stretching' of the phonetic alphabet is USELESS. 'Oscar November Four Zulu Zulu Zulu Zulu' is the correct way and this may be pronounced rather quickly. 'Ooooscaaaaar Noooveeeember Fooouuurrr Zuuuluuuu' etc. is a waste of time and does not contribute to the intelligibility of your callsign at the DX station's end. On the contrary!

- ALWAYS use the CORRECT phonetic alphabet when calling in a pileup. The phonetic alphabet (Alfa through Zulu) in radio traffic serves to avoid mistakes during exchanges of letters and words. To achieve this goal, the 26 alphabet letters have been attributed a unique word. A DX station listens for these unique words in the pileup cacophony. His ears are harassed by the fusion of all these words (and figures) and fatigue increases. If we deviate from the standard words of the phonetic alphabet, it gets even more difficult for him.

Far too often in pileups one can notice that the DX station missed just THAT letter that deviated from the standard alphabet, and consequently he has to ask for a repeat.

Example:

'Lima' cuts like a razor blade. Many use 'London' as alternative. If your signal is very weak, the DX station will probably understand 'Lima' but not 'London'!

More examples:

Bravo - Baltimore. Echo - Easy (very bad). Hotel - Honolulu (bad). Juliett - Japan. Kilo - Kentucky. Lima - London (very bad). November - Norway (very bad). Oscar - Ontario/Ocean (very bad). Papa - Portugal (very bad). Quebec - Quitto (very bad). Romeo - Radio. Sierra - Santiago. Tango - Toronto (bad). Uniform - United/University (bad). Victor - Venezuela (bad). Whiskey - Washington (very bad). X-ray - Xylophone (very bad). Yankee - Yokohama (very bad). Zulu - Zanzibar (bad).

Not only is the DX station listening for the exact words, he is also expecting certain consonants/sounds in these words and a defined number of syllables. If a syllable gets lost due to static/QRN, he can often reconstruct the word by completing the missing consonants and/or number of syllables.

The amusing words as often heard on HF/VHF may sound comical, but are not effective ('Old Nose four Zenith Zebra Zinc Zigzag' comes to mind).

- If the DX station returns to you with your full and correct callsign, why waste time by repeating your callsign at the beginning of your transmission? Just give him his report. You can end your transmission with your callsign, but this is time consuming and certainly to be avoided when working DXpeditions. The shorter your transmission the better and the rest of the pileup will appreciate it as well. Usually just giving a report without additional info is the best way to go. One second and the QSO is made, the DX station can attend to another caller.
- When you're calling in a pileup, never transmit the callsign of the DX station; he knows his callsign....a pure waste of time.
- Give your callsign once. Two times is a maximum, but not advisable. In some cases (where the DX station doesn't hear well or if he's an inexperienced operator) you have to do this. Three times is out of the question!
- If the DX station returns with a part of your callsign, put an emphasis on that part of your call he missed.

Examples:

QRZ, XU7ACV.

(cacophony - 7 seconds of waiting time)

ON4zzzz.

ON4zzzz, you are 59, QSL?

QSL, 59.

Thanks, QRZ, XU7ACV

QRZ, XU7ACV.

(cacophony - 7seconds of waiting time)

ON4zzzz.

4zzzz, you are 59, QSL?

ON4 - ON4zzzz, 59 , QSL?

ON4zzzz, QSL tnx, QRZ, XU7ACV

- if the DX station returns to a partial callsign which does not correspond to yours, BE SILENT. Again, BE SILENT, BE QUIET! The DX station doesn't want to hear your callsign if he hasn't called for you.
If pileup callers would follow this logical principle, more stations could be logged by the DX station!
Unfortunately the 'ME, MYSELF and I' attitude prevails with a lot of DXers. Although they know the DX station didn't come back to them, they continue calling anyway.
This is a pure waste of time, and a display of very selfish attitude!
- If the DX station returns with the word 'ONLY' and a partial callsign, this usually means that he already tried several times to log one particular station, but due to unsportsmanlike behavior of the pileup DXers (who keep on calling on top of that station) he has been unable to do so and has to make a repeat after repeat after repeat.
- If the DX station instructs 'JA ONLY, Europe Standby' he expects to hear ONLY Japanese stations. If you're from Europe, do not call. Also, don't call in the pileup 'Europe PLEASE' or 'What about Europe?', this is really not to be done.
- If you are running QRP (5 W or less in CW, 10 W or less in phone), do not call the DX station with your callsign followed by /QRP ('stroke QRP'). Never. In Belgian Radio Regulations this is a non-permitted suffix (surely in many other countries as well). Only /P, /M, /MM and /A are permitted. How often can one hear someone calling in a pileup with just 'stroke QRP' without giving his callsign? Eventually the DX station has to ask for his callsign, again a waste of time.
Of course, during a 'ragchew QSO' you can clarify that you are working QRP.

B. CW SIMPLEX PILEUP

- The same points as mentioned above are valid for a CW simplex pileup.
- Never transmit 'de ON4ZZZZ' but just plain 'ON4ZZZZ'.
The word 'de' (in morse code means 'from') only adds to the confusion for the DX station in trying to disentangle the callsigns.
- Never end with a 'k' (invitation to transmit) when calling a DX station.
The more irrelevant information you pass, the bigger the chance for mistakes. An extreme example on how a transmission of 'k' can lead to confusion when calling a DX station, is given at the end of chapter 13 (Two-letter callsigns).
If the calling station (you) does not transmit during a timespan which is significantly longer than a space between two letters, the DX station will understand your transmission has ended.
- Adapt your speed.
After careful listening to the pileup and the rhythm in which the DX station works, you can quickly figure out which stations are picked up by the DX station. Adapt your transmit speed to the average speed used by those stations.
Just because the DX station transmits at 40 wpm doesn't mean he is actually working stations using the same speed. Often he picks out stations using a much lower speed. In that case it is better for you to slow down as well.
- If the DX station returns with 'ONLY' and/or finishes with 'KN' (instead of the usual K = Over, invitation to transmit) it means he wants to hear ONLY the specific station (or the partial callsign of that station) he calls. It is usually an indication he is starting to lose his patience because of the many undisciplined callers who are transmitting on top of the station he is trying to work!



C. RTTY (AND OTHER DIGIMODES) SIMPLEX PILEUP

Giving your callsign once will usually not be sufficient in digimodes. Twice is advisable and depending on how well the DX station can pick out callsigns, it is sometimes necessary to give your callsign three times. The latter is to be avoided as much as possible.

It is better to use good timing and call at the right moment. Hopefully the DX station turns to SPLIT mode fast!



D. SSB SPLIT PILEUP

Pfew, the DX station works in SPLIT mode, what a relief! Indeed a relief because in SPLIT mode the pace of making QSOs increases considerably compared to working in SIMPLEX mode.



How to get in the DX station's log fast when he's working SPLIT?

- LISTEN, LISTEN, LISTEN ...
- Go through the above simplex techniques, a lot of items are applicable in split as well.
- Is your transceiver positioned in SPLIT mode?
- By LISTENING a few minutes before making ANY transmission, you increase your chances considerably to get in the log with a few well placed calls on the correct frequency.

Some hams make a sport out of it. They try to break the pileup with just one well placed call to get in the DX station's log.

By listening for a few minutes you will:

1. get acquainted with the rhythm in which the DX station works;
2. get to know the width of the SPLIT (e.g. 5 to 10 kHz up/down), either indicated by the DX station (preferred method, but unfortunately not all DX stations do this often enough) or figured out by yourself;
3. understand if you are having a real chance to break the pileup at that moment in time (does the DX station work only Japan because he has better propagation to that region?);
4. figure out how the DX station moves through the SPLIT window;
In other words, does he start at the bottom of the SPLIT window moving to the top and does he return to the bottom to start over again? Or once he gets to the top, does he move from top back to bottom?
5. notice in which frequency hops the DX station moves through the pileup. E.g. if the SSB SPLIT window comprises 10 kHz, does he work stations every 2 kHz, or is it rather every 3 or 5 kHz? Or does he work some stations at the bottom, before moving to the middle, and then the top?

After which:

1. give your callsign one (1) time;
2. and LISTEN.

If you went through the above mentioned, it is usually a piece of cake to place your call at the right time on the right frequency. Wanna bet you will be more successful (than before following these tips) to 'break' through a pileup? And no, you don't need a kiloWatt of power to do this.

Again: when the DX station returns with a partial callsign and it doesn't correspond to yours, BE SILENT - BE QUIET! This item is important and needs emphasis. If you do call when it is not your turn, even during SPLIT operation you can ruin someone else's QSO and decrease the speed and rhythm of the DX station. DO NOT DO THIS! Even if you hear others doing it! Be a lady/gentleman in radio traffic!

If you don't do this - hence you are listening - you have a good chance to hear which station the DX station is calling, and on which frequency!

Depending on the capability of the DX station to pick callsigns out of the pileup, it is advisable to give your callsign only once. You will get the feel of this in time. Two times is an absolute maximum, three times is not to be done. I repeat myself, it is an important topic.

Different DX stations have different operating styles. One will be more to your liking than another. Some operators work by numbers to thin out the pileup. If the requested figure does not match the one in your callsign: BE QUIET - BE SILENT!

E. CW SPLIT PILEUP

- Most of the points concerning SSB SPLIT pileup techniques are also applicable to CW SPLIT. Kindly read them again.
- Initially adapt your speed to the transmit speed of the DX station; when you figure out the average speed of the stations he is working, use that speed. This is the speed the DX station feels most comfortable at.
- Transmit your callsign once (1 time), and LISTEN. Giving your callsign twice on CW is senseless in most cases.
- If after all you decide to give your callsign twice, change to QSK mode (CW full break-in). Using this mode of operation you will hear when the DX station starts transmitting. You can then interrupt your transmission and use your 2nd VFO to find out who he is working.



F. RTTY (AND OTHER DIGIMODES) SPLIT PILEUP

- Again, the points concerning SSB SPLIT pileup techniques are also applicable here. Kindly read them again.
- Send your callsign twice (2x) and listen. You will quickly notice that by giving your callsign three times, the DX station is already giving a report to someone else. If you are lucky the DX station will repeat the callsign of the station he's working at the end of his transmission. You can then go and search on your 2nd VFO who he called. Very often you are not that lucky and then it is important to hear the beginning of his transmission. Usually this works out fine if you give your callsign only twice.



9. TAIL ENDING

A new hype came about some twenty years ago: 'tail ending'. It was and still is controversial.



What is tail ending? With the introduction of the 2nd VFO (at first external, later incorporated in the rig) working SPLIT mode became a popular way of operating for DX stations and DXpeditions. The pileup callers listen on their 2nd VFO to the DXer being called by the DX station. When the careful listener hears the QSO is 'ok' (callsigns and reports correctly exchanged) he 'steps on the tail' of the DXer who is still concluding his QSO. If his signal is strong enough the DX station can already hear him and jot down his callsign. When the DX station concludes from his end, he immediately calls the 'tail ending' DXer.

It was thought time could be saved in working this way and more QSOs could be logged. But time has learned that very few operators perform 'tail ending' in a correct way; many operators step too early on the tail during an ongoing QSO, hence the QSO has to be repeated (part of callsign missing, report not understood etc.).

With today's attitude of less and less discipline many an operator seems to think it is necessary for him to call on top of an ongoing QSO. If they additionally hear the DX station is calling the next station without asking 'QRZ' or something similar, all hell breaks loose.

'Tail ending', yes or no? Today's general consensus: no.

10. DX WINDOWS

National administrations prescribe the frequency bands hams can use. Most do not prescribe on which frequencies which modes should be used. To coordinate these matters in an orderly fashion the IARU band planning comes nicely into play. The IARU Region1 band planning only suggests two frequency segments on the 80m band where priority should be given to intercontinental DX contacts (3500-3510 kHz and 3775-3800 kHz) and a DXpedition window on the 20m band (14195 +/-5 kHz). Besides this we have the 'de facto' DX frequencies where DXpeditions and rare DX stations can be found.



Be aware of these DX frequencies, also known as DX windows, and respect them. In the past, when active from central Africa with a low power station I wanted to make as many OMs as possible happy with a new and rare country. That's why I always looked for a spot in one of the DX windows to call CQ. I knew many DXers are keeping an eye on these windows in the hope of something 'rare' showing up. My disappointment was big when I noticed these windows were filled with 'normal' European or American operators conducting 'local' QSOs.

Many think the DX windows are for them as 'regular' stations to call 'CQ DX'. I don't agree with this point of view and consider these windows as a haven for weak DX stations that want to be 'noticed'. It would be better for regular stations not to call CQ in these windows and use them solely in search for rare DX.

The following 'de facto' DX windows and DX frequencies are current and worth keeping an eye on. They are to be avoided by regular stations to call CQ:

- SSB: 28490-28500, 24945, 21290-21300, 18145, 7045, 3790-3800, 1845 kHz;
- CW: mostly bottom 5 kHz of a band, and also following frequencies: 28020-28025, 24895, 21020-21025, 18075, 14020-14025, 10103-10105, 3500-3510, 1830-1835 kHz;
- RTTY: ± 28080-21080-14080 kHz.

Of course DX stations and DXpeditions can appear on other frequencies outside the de facto DX windows.

11. CONFLICT SITUATIONS

Let's keep in mind we are sharing with many hundreds of thousands the same hobby on the same terrain, namely the ether. Conflicts are bound to happen. It seems unrealistic not to discuss this fact; a bit of good advice never hurt anyone.



As pointed out in chapter 4: AT ALL TIMES, BE POLITE. This is the only way to successfully tackle conflict situations in the long run.

Let's have a look at an example of a very extreme case, namely IZ9xxxx from Sicily. OM Pipo had the annoying habit to call CQ on 14195 kHz, a 'de facto' DX frequency used by rare DX stations and DXpeditions, and to conduct QSOs with regular stations from Europe and America on that frequency. A lot of DXers worldwide felt offended. 14195 kHz was transformed to a mess every time Pipo showed up, because the DX community did not appreciate him 'monopolizing' that frequency.

If we analyze this case, we notice the following objective observations:

- Pipo asks 'Is this frequency in use?' before attempting a CQ and makes QSY when the frequency is in use.
- Pipo uses a frequency which he, as decreed by law, can use at anytime (see further).
- 14195 kHz is situated in the de facto DX window 14190-14200 kHz. This frequency segment has been withheld by IARU Region 1 with priority for DXpeditions since January 1st 2006 (since that date Pipo had to emigrate to other frequencies).

- Whenever Pipo made legal transmissions on 14195 kHz (before 1 January 2006) he was being jammed by dozens of stations, who never identified with their callsign and who were, in fact, operating illegally (called pirates).

This situation came to my attention in mid 2003 and I witnessed on many occasions how dozens of DXers were deliberately jamming Pipo. Let there be no doubt that each of these stations transmitted outside the legal boundaries granted by their licenses. If their National Controlling Authorities would be stationed at their doorstep with a mobile unit, witnessing their illegal transmissions, these DXers would have lost their licenses. Not Pipo who was always working within the legal boundaries of his license!

As a quasi-objective observation we can say Pipo is an anti-social ham who on purpose spoils the pleasure of many. But, his actions are always conducted within the boundaries of his license.

What is a good approach to deal with such an individual?

- Certainly not by jamming him (and making illegal transmissions yourself). It gives him a feeling of power, and power tastes for more... so he will even step up his efforts to annoy you and others!
- Leave him be, and turn your VFO to another frequency;
- contact him in a normal manner and try to find out the cause of his behavior.

On 12 August 2003 my nerves were tested once more by Pipo. I called him in a normal manner and we had a QSO which lasted about 20 minutes on 14195 kHz. During this QSO I learned Pipo didn't appreciate (to say the least) how he kept on being jammed by dozens of 'unknown' hams. He was appalled by the death threats (!) he received by telephone (picked up by his daughter!), etc. During this 'calm' QSO we exchanged argumentation as to why Pipo should or shouldn't continue using 14195 kHz. We ended the QSO without reaching an agreement, but the next few weeks 14195 kHz was clear of IZ9xxxx transmissions.

Of course Pipo started using 14195 kHz again after a month or so, perhaps because someone caused him grief on another frequency?

On another occasion in 2005, when the K7C expedition was active on 14195 kHz, I overheard Pipo asking 'Is this frequency in use?'. I promptly responded: 'Yes Pipo, by K7C, tnx QSY, 73 from ON4WW'. Pipo immediately went down 5 kHz to call CQ. Case closed.

In my early days as a ham I encountered a vicious incident taking place on 21300 kHz. An infamous and obnoxious ON6 was engaged in a local QSO on top of a major DXpedition. I broke in, explained the situation, asked them politely to QSY if possible and signed with my callsign.

The foul language in response thrown at me cannot be published here. At a later stage I learned this ON6 and an ON4 buddy of his were constantly being jammed on a VHF repeater. Perhaps their unmannerly mentality was the basis for the jamming or perhaps they gained this mentality because they were unjustly jammed (by again 'illegal jammers')?

Here's another example of an improper incident which happened between an old-timer and two novices in Belgium. Two ON3 stations (novices) were having a QSO on a VHF repeater. One said to the other he could hear him very well on the repeater input frequency. At that moment an ON4 (old-timer) 'ordered' them in a very arrogant manner to leave the repeater because he wanted to make a call. This is not done. As said before, at all times BE POLITE. The ON4 operator could break in and tell them he wants to make a call. As a repeater user he should understand the primary purpose of relay stations, namely to provide an extended operational range for mobile and portable users. If these two unlucky ON3 stations would cross each other on a highway at 120 km/h in opposite directions, their QSO would be quickly finished on a simplex frequency.

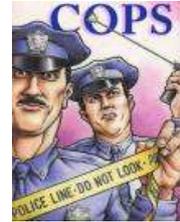
'Newcomers' being bawled at by an old-timer is flatly embarrassing. Are we not supposed to help them become even more experienced hams?

Are these true stories? Does it matter? 'Bottom line': be polite. One will not always reach his objectives, but he will more often than not.

This brings me to the next chapter, which could actually reside under 'Conflict Situations' as well...

12. 'COPS' (POLICE)

The ham community is expected to be 'self policing', keeping order in our ranks. As long as nothing illegal happens, the 'Authorities' won't intervene. This, however, does not mean the Radio Amateur Service needs to have its own police! Self discipline? Yes.



Let us go back to our friend Pipo from Sicily. Had I been 2 seconds slower in responding to his question 'Is this frequency in use?', surely one of the self-imposed DX 'cops' would have thrown bad language at him. This foul language (such as IDIOT, LID and much much worse) is of the kind of nature for things to evolve from bad to worse.

As can be expected from a person with Pipo's character, he would just love staying on 14195 kHz instead of moving to another frequency. Not only will he be jammed for the next two hours or so, also the K7C expedition will disappear off stage... Precious time and lots of QSOs will be lost thanks to our 'helpful cops'.

- Most 'cops' have good intentions and are not using foul language. They remain polite and are often successful in their attempt to clear a frequency of unwanted traffic.
- Some 'cops' also have good intentions but by using bad language and manners they don't achieve their goal to clear a frequency. These 'cops' create chaos instead of calm.
- A 3d category of 'cops' is those using foul language with the objective of creating chaos. Their bad language and manners attract comments from colleague 'cops', with a resulting total chaos!

These three 'cop' categories have one thing in common: while playing 'cop', they are effectively being PIRATES, because they make transmissions without identifying.

In which cases can we usually encounter 'cops'?

- 'Cops' mostly appear on a rare DX station/DXpedition's frequency, usually when this station is working in SPLIT mode;
- a DXer forgets to press the SPLIT button on his transceiver and starts calling the DX station on his transmit frequency. Usually this operator also prefers to send his callsign three or four times, because of which not a soul in the pileup hears whom the DX station is returning to. This is the time for 'cops' to start shooting.

A civilized 'cop' can correct the 'offender' by telling him to transmit 'UP' or 'DOWN'. He is trying to help, rather than punish him.

A lot of variations are being used that sound neither neutral, nor polite. I don't want to quote these, as not to show how things mustn't be done.

How can we help the 'offending' operator in a neutral way?

Before giving in to your 'cop' vocation:

- first of all consider what the added value can be of YOUR intervention, if any;
- stay quiet if another 'cop' is already in action.

And if you still have to give in to your being a 'good cop':

- give the last 2 or 3 letters of the offender's callsign followed by UP or DOWN. That's it;

Any other message may not be well understood by the offender, he possibly won't correct his mistake and chaos creeps in.

CW Example:

ON4WW calls by mistake on the DX station's frequency. Transmit the following: 'WW UP'. By only transmitting 'UP' (or 'DWN'), ON4WW will probably not understand you were addressing him. Consequently he will repeat his mistake and call again on the DX station's frequency. A second consequence will be you probably woke up the other 'cops' who will start to transmit UP UP, with chaos as a result.

So: always transmit some letters of the offender's callsign, followed by 'UP' or 'DWN'. In that way he will understand you are addressing him and not someone else. If you transmit his 'full' callsign followed by 'UP', you will very probably cover a part of a transmission made by the DX station.

Of course it would be better if nobody felt attracted to 'being a cop', but this seems a utopia. An effective call to the offender can restore order rapidly. A call with foul language achieves the opposite and brings little joy to the pileup and DX station. One good 'cop' can be a blessing, two good 'cops' are already too many.

On SSB and RTTY modes the same principle applies. Give a part of the callsign (or even the complete callsign in these modes) followed by the correct instruction (listening UP/DOWN) and the DX station's frequency will be clear again in no time at all.

Being a DXer you will quickly grasp you accomplish more by not reacting to 'cops' at all. Try to swing something negative to something positive. Keep on LISTENING (here's the magic word again) through the tumult to the DX station and in many cases you will be able to log the DX station while the 'cops' are having a 'jolly good time'.

Remember, strictly taken, a 'cop' ALWAYS makes illegal transmissions, unless he identifies!

13. TWO LETTER CALLSIGNS (PARTIAL CALLSIGNS) AND DX NETS

As pointed out in chapter 3 (CORRECT USE OF YOUR CALLSIGN), you are to use your **complete** callsign in all modes at all times.

In many DX nets (mostly to be heard on the 15, 20 and 40m bands) the MOC (Master of Ceremony) takes a list of stations wanting to work a DX station that is present in the DX net.



In order to make this list the MOC often asks for the last two letters of your callsign. Not only is this incorrect, it is also illegal. Unfortunately many have also adopted this method when they call a DX station outside a net operation. It slows the rhythm in which a DX station/DXpedition moves ahead. Overheard many times, also when I was active 'from the other side': a station gives three times the last two letters of his callsign. He is very strong with the DX station and had he given his complete callsign once, the QSO would be made in five seconds. Now it will take three to four times more time to complete the QSO!

On CW this phenomenon is heard much less and on RTTY it is seldom seen. The most improbable example in the bloopers category I ever encountered: a station called me on CW as follows : 'XYK XYK'. He was so strong I eventually had to log him to be able to hear the much weaker callers. So I replied: 'XYK 599'. The callsign that follows is fictitious, but you'll understand. He came back: 'Z88ZXY Z88ZXY 599 K'. This nice OM at first transmitted the last two letters of his callsign followed by the letter K (invitation to transmit in morse=Key). The letter K was glued to the last two letters which made it seem as if it were the last three letters of his callsign. This is what I call both literally and figuratively 'a waste of space and time'!

A final remark on DX nets. The enclosed cartoon says it all. The QSOs are fed, so to speak, with a spoon. The MOC often lends a 'helping hand' and this cannot be the idea of someone wanting to make two-way QSOs. Try to make contacts independently. It will result in more pleasure and higher reward.

14. THE USE OF QRZ AND QUESTION MARK

Some DX stations and DXpedition operators have a bad habit of not frequently identifying. This habit asks for problems.



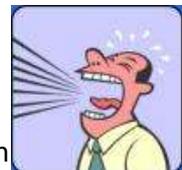
DXers tuning the bands (especially those not logged in to a DX Cluster) hear a station, but not his callsign. After a while they transmit 'QRZ' or '?' or 'CALL?' on CW, and 'QRZ' or 'What's your/his call?' on SSB. This is most annoying; when the DX station works SPLIT he can't hear this. The pileup stations are transmitting on a different frequency and are disturbed by the one transmitting 'QRZ' or '?' or 'CALL?'. Result: the feared 'cops' surface. Chaos follows.

If you want to avoid chaos, follow rule number one of DXing: LISTEN. Don't ask 'QRZ', '?', 'What's your/his call?'. It won't help you in figuring out the callsign of the station.

'QRZ' in this case is being used incorrectly as well! QRZ means: Who is calling me?

15. HOW TO CALL A CONTEST STATION

Before entering a contest or calling a contest station, thoroughly read the rules of that specific contest. In some contests you cannot contact all participants due to the nature of the contest. It is somehow embarrassing if you call a station who does not want and cannot work you at that moment in time due to the contest rules. In such cases the logging software even prevents the operator from logging you. Here are some tips:



- a contest station wants to work as many stations as fast as possible. The message is: keep it short!
- Never give your callsign twice when calling a contest station. Once is sufficient;
- if the contest station copied your complete callsign, do not repeat your callsign and just give him the required contest report;
- if the contest station returns to someone else: BE QUIET, BE SILENT!

16. DX CLUSTERS

A controversial theme. Most love 'em; some dislike them.

It is striking how many incorrect 'DX spots' are being posted. When spotting DX, before hitting the ENTER button: check all data, correct any typos.



A DX Cluster also has an 'ANNOUNCE' function. Many operators 'mildly abuse' this function to air their frustrations, moan and to ask for QSL information. Air their frustrations, moan? Here are some recent spots and announcements observed during the 3Y0X expedition (and also on numerous other occasions):

- 'I've been calling for 3 hours and still no QSO'
- 'been listening for 5 hours, not a peep. Bad expedition!'
- 'bad operators, they have no clue about propagation'

- 'why not SPLIT?'
- 'please RTTY'
- 'BINGOOOOO!'
- 'New one !!!' '
- 'My #276 !!!'
- 'Europe PLLEAASEE'
- etc. etc.

This doesn't make sense. The added value is nil. A DX Cluster is a tool to spot DX, period. The commentary field can be used to give info about the SPLIT frequency used, QSL manager etc.

DX Cluster = DX spots, with possible relevant information which has added value for all DXers.

Need QSL info? Give the command 'SH/QSL callsign'.

If there is no QSL database on your DX Cluster: 'SH/DX 25 callsign'. The last 25 spots of this station will be shown, and usually one of the commentary fields mentions 'QSL VIA'. Even better is the command ':SH/DX callsign QSL info'. This will show the last 10 spots of that callsign with QSL info in the commentary field. If the DX Cluster can't provide you with any QSL info, it is good practice to consult any of the internet QSL websites.

Don't project your frustrations on others. Invest more time in improving your station or operator skills.

Spots with commentary such as 'Worked 1st call' and 'Worked with 5 W' say nothing about the signal of the DX station, but everything about the ego of the DXer who made the spot.

Many DX spots can be observed of stations spotting themselves or their chat partner, to pass a personal message in the commentary field. This is not to be done!

Spotting a PIRATE station? A PIRATE doesn't deserve our attention, don't spot him.

If you spot stations, such as our friend Pipo, what do you reckon will happen? Right, don't spot him.

Summary: make correct DX spots. Don't annoy your fellow hams with your frustrations. Nobody really cares about the state of your ego, but everybody will enjoy useful information such as SPLIT frequency and QSL Manager info. Use the DX Cluster functions in a correct manner. If you don't know them, look them up. The manual usually can be found on the DX Cluster by typing 'SH/HELP'. Read the manual.

Attention: the entire DX Cluster community reads your spot! It is very easy to build a bad reputation. It is just as easy to build a good reputation.

For our pure amusement, the following [Cluster Monkey](http://www.kh2d.net/dxmonkey.cfm) link (<http://www.kh2d.net/dxmonkey.cfm>) is recommended. The message is clear.

17. TIPS FOR DX STATIONS AND DXPEditionS

Do you enjoy a combined family and radio holiday ? Or are you working abroad and 'radio activity' is an option? Or perhaps you are totally nuts (according to your XYL) and prefer spending your money on a DXpedition?

Odds are you will make transmissions from a 'wanted' entity. The more wanted, the more chances you'll have to encounter situations as above mentioned: 'cops', nobody listening to your instructions, etc. It is very important that YOU control the situation, and keep it under control.



- If going on holidays to Spain or France you won't create big pileups;
- if you're heading for the Baleares, Crete or Cyprus, the pileup fever will surface and you'll get quite some callers;
- your job takes you to Iran and you get lucky to operate from that entity, take a seat and start sweating!
- If you manage to set sail for Scarborough Reef and fire up a DXpedition adventure, the pileups will be awesome... 'fasten your seatbelts'!

How can you control a pileup and keep control? Indeed, while not a simple assignment, it is totally feasible. Here are some tips:

- mention your callsign after each and every QSO. If you are blessed with a real long callsign such as SV9/ON4ZZZZ/P, at least mention it after every three QSOs;
- if you are working simplex and notice you can't pick out complete callsigns or those you are calling are not coming back to you anymore, immediately switch to SPLIT mode;
- when switching to SPLIT mode make sure your QSX (listening) frequency is not in use! Be careful not to ruin an ongoing QSO;
- when working in SPLIT mode, announce this fact after each QSO. Indicate which split you are using. CW example: UP 1, UP 1-2, UP 5. On SSB: listening 5 up, listening 5 to 10 (kHz) up;
- on CW SPLIT listen at least 1 kHz up (or down). Better is 3 kHz, to avoid possible keyclicks on your TX frequency => no excuse for 'cops' to intervene;
- on SSB SPLIT listen at least 5 kHz up or down your TX frequency. It is quite astonishing how 'wide' some SSB signals are. If you take a SPLIT of only 2 or 3 kHz these signals may interfere and splatter on your TX frequency;
- keep the SPLIT window as narrow as possible, don't claim unnecessary spectrum just for yourself;
- if on SSB you managed to pick out a partial and not complete callsign (happens often in a big pileup), give a report to the partial callsign e.g. 'Yankee Oscar 59';
- on CW do not send a 'question mark' when returning to a partial callsign. For some obscure reason the majority of (undisciplined) pileup callers take a 'question mark' as the sign to start transmitting again, although the partial callsign does not resemble their callsign.
Example: 3TA, 599. Not: ??3TA, 599. In the latter case, the pileup WILL start calling again;
- on SSB and CW (and digimodes): if at first you gave a report to a partial callsign, be sure to transmit the complete callsign so the operator knows you logged him and not someone else. Some inexperienced DX stations do as follows: TA, 59. OH3TA returns with his callsign several times and gives a report. The DX station comes back and says: QSL, tnx, QRZ?
Of course OH3TA is left in the dark as to whether he has been logged or not. The DX station should have said: OH3TA, tnx, QRZ?
- once you have given a report to a partial callsign, stick with that station until you manage to get his complete callsign. A pileup can be very undisciplined. If they notice you stick with the partial callsign until you have the complete callsign, they will understand their continuous calling has no effect on you, and they will eventually show a bit more discipline. If on the other hand you drop the partial callsign to work another station, you have lost the battle and chaos will rule;
- if a pileup becomes too undisciplined, go QRT, change your TX frequency or move to another band;
- always stay 'cool' and don't start shouting at the pileup;
- don't work 'two-letter callsigns'; tell them you only want to hear complete/full callsigns;
- in SPLIT mode, when you notice the stations you return to are not responding, listen on your TX frequency, chances are someone is jamming you (e.g. 'cops');
- on CW on the higher bands, a transmit speed of 40 wpm is about the limit the pileup can cope with. On the lower bands (160 to 40m) the maximum speed to use - depending on conditions - is between 20 and 30 wpm;

- always inform the pileup about your moves. If you go QRT, tell them. Are you up for a pitstop in the little shack, tell them: QRX 5 (QRX 5 minutes, standby). If you QSY to another mode or frequency, tell them. It is very annoying for a pileup not to know what your next step will be. After all, they want to work you and like to be informed about your activities. 'You are hot'!

If a pileup grows too big on you, you may decide to work by continent/region or by numbers.

Working by continent/region means you call only one specific continent (e.g. Europe) or region (Northern Europe, West Coast USA), while the DXers in the other continents/regions have to standby.

Working by numbers means you call the stations by the number in their callsign (0-9).

This way of operating is generally not recommended. Large groups of operators are sitting idle, nervously waiting until it is their turn to call you. While waiting, they have no guarantee you will call their continent or number; you can go QRT at any time. Hence they are nervous. And nervous people can quickly turn into nasty 'cops'. If you work by numbers, 90% of the pileup is sitting idle!

However, to cope with a big pileup, this way of operating may assist operators who are in the learning curve.

The one real advantage of working by continent/region is to give areas of the world that normally have poor propagation towards you, the chance to get through.

Some things to keep in mind when working by continent/region:

- use this technique to reach areas with poor propagation towards you;
- when using this technique because the pileup is too big for you to handle, rotate quickly between continents;
- inform the other continents/regions about your plans: are you going to work JA only for 10 minutes, will you work EU next, then NA? Tell them.
- When the pileup gets smaller and smaller, return to normal operating practice and work all continents/regions simultaneously

Some things to keep in mind when working by number:

- once you started a number sequence, finish it. Sometimes operators stop in the middle of a sequence to go QRT or return to operating without using numbers: be assured, you do not get the sympathy of the pileup by doing this!
- start the sequence with number 0 (zero), continue with 1-2-...-9 and start with 0 again;
- don't use the number 'jumping' technique: 0-5-2-3-8-4-...the pileup will hate you.
- Work a maximum of 10 stations per number, always work an equal amount of stations per number.
- Inform the pileup on how many stations you will work per number and repeat this information each time you switch to the next number.
- Remember, 90% of the pileup is sitting idle, 'cops' will transmit on your frequency. Avoid working by numbers if you can.

Besides working by continent/region or number, some operators try working by countries. This is to be avoided at all times. Repeat, do not do this, you will attract 'cops' of all the 'idle sitting' nations. You will certainly fail to call each of the 337 different DX entities, so why even think about using this silly technique?

Final remark: one of the most important points when running a pileup is to maintain the same RHYTHM throughout the operation. If you master this you will be much more relaxed, as well as the pileup. The most important point though: enjoy yourself!

18. MISCELLANIOUS

CW keyclicks can be very annoying for your fellow-hams. If you own a rig that produces 'garbage', have it modified (or do this yourself, being a good ham!). Your fellow-hams will be grateful. The same applies to SSB: overmodulated signals don't call for friends. Make sure your transmissions are 'clean'!



The Q code and number code (73/88) are established to make certain questions and words easier and shorter to transmit and receive on CW. In fact, they don't belong in phone (SSB/AM/FM) QSOs! Why say '73' on phone while you can just as well say 'Many greetings/Best regards'? Try to keep a reasonable balance in this matter. A phone QSO mustn't exist out of 'as many as possible' Q words and numbers.

To say 73 (best regards) in plural (73's) on phone is not correct and sounds a bit 'overdone'.

Also, ever tried to transmit 73's on CW?

If a DX station's CW speed is too fast for you to copy and you really want to work him, use a tool (e.g. software decoding) so you understand what he is transmitting. If not, a lot of time can be wasted to complete just one QSO, yours. You don't react promptly because you don't understand what is being transmitted. Don't forget, many others are waiting for a QSO with the DX station.

Only with lots and lots of practice will you gradually increase your capability to copy fast CW stations without difficulty and without software.

'QSO NOT IN LOG': if your QSL cards regularly return with this feared message, it means time has come to upgrade your 'operating practice'. TO LISTEN is a first requirement: if you can't hear a station, why call him? Read and re-read this document several times, try to act upon it, and be a successful operator. Wanna bet the 'QSO NOT IN LOG' message won't be regular anymore?

Talking about QSLs, the saying goes: 'The final courtesy of a QSO is the QSL card'. Of course, most people like to have your paper QSL card in their collection. Some however don't. I personally take it as a matter of pride to answer all QSL cards that reach me via the bureau system or direct. This includes QSLs from hams and SWLs (short wave listeners) alike. In Belgium we are lucky, the use of the bureau system is included in our annual dues to the UBA, our National Radio Society. Using the bureau system is extremely cheap for us to exchange cards worldwide. However not all hams are that lucky; different countries use different bureau systems, some are not that cheap. Keep this in mind when you send QSL; inform yourself (eventually through the IARU website) if there is a good functioning bureau system in the country you are sending your card to. If not, consider sending direct with an SAE (self addressed envelope) and sufficient funds for return postage (e.g. IRC - International Reply Coupon).

Another way is confirming contacts electronically through e.g. the LoTW (Logbook of the World) from the ARRL. No paper QSL is required, but hey, I still fancy these old fashioned paper QSL cards piled in shoeboxes!

Some DX stations use a QSL manager to provide you with a QSL because they like making QSOs instead of doing the time consuming QSL chores. Many websites can provide you with all needed info on these managers. I just name one (QRZ.com) which is often mentioned during on the air conversations.

A note on National Radio Societies. Remember during WorldWar II all ham licenses and equipment were revoked? Who do you reckon talked to the governments after the war so hams could get operational again? Indeed, it were the National Radio Societies (IARU members). These non-profit organizations are the sole bodies who have power to negotiate with the Authorities that are 'granting' you the privilege to operate ham radio. It is important that the National Radio Societies have a strong voice, and that can only be if you are a member of your National Radio Society. Together we are strong, l'Union fait la Force. Are you not a member ? Consider becoming one. For those living in countries that don't have a cheap bureau system, perhaps it is time for you to stand up and ask your Society why it is possible in Belgium but not in your country? And why not even offer your volunteer services to your Society? Remember, these Societies are the only

option for you to be heard when it comes to dealing with the Government! They are important.

Many DX resources are available through the internet. The list is very long, a search on the web will help you out. To name a few: 425 DX News Letter, ARRL Propagation Bulletins, Ohio Penn DX Bulletin, etc.

Become acquainted with the IARU band planning and the frequencies authorized by your national administration for you to use. Make a hard copy of them and put it on the wall.

IZ9xxxx and Pipo are the for obvious reasons somewhat modified callsign and name of a Sicilian ham.

We all deserve a good laugh, have a look at DL4TT's [sharp observations](http://www.qsl.net/dl4tt/DawgX-rayClub.html) (<http://www.qsl.net/dl4tt/DawgX-rayClub.html>) on 'Dog X-ray' after you finished reading chapter 19.

19. IN CONCLUSION

This boy started out as a small pistol ham. In the beginning he was very pleased if he could make just one QSO with a major DXpedition. With a low power station (some bigots claimed otherwise) he worked his first 300+ entities. There was no secret, there was just the very strong desire to work a new country.

This meant going through all paper 'DX magazines'. I also tuned in on the 2 meter DX channel to listen to the old-timer DXers and see what new ones they were hearing with their superior antennas. There were those sleepless nights. There was the calling for hours to make just one QSO. There were the calls without success. More hours of calling until he finally broke the pileup. Or perhaps not, and tried again the next day. Sometimes taking holidays to be able to work 'a new one'.

This boy still is a small pistol ham. If DXers from the east of the country pay him a visit, they exclaim: 'Boy, is this all you got? Is this really all you are using to work that juicy DX?'

Indeed, the desire to work DX is high, and that makes one eager to find ways to build a station as efficient and competitive as possible. It doesn't have to be megabig to be successful. Above all, good operating practice delivers the key to success.

It often tickles me to take a drive to those 'DX Cluster moaners' and show them how to log a difficult QSO instead of wasting their time by moaning and airing their frustrations on a DX Cluster.

'Get a life, and work DX'. As a grand personality once said, "**DX IS**" !

Good luck in working 'new ones' on the bands. I hope the above tips may contribute to lift the level of operating practice a bit. If you don't manage to break the pileups, you may always call upon me. A tasty trappist beer per new country worked from your station is all that is needed...

And, keep in mind, nobody will ever be without mistakes. Want to bet you will catch the author one day making a mistake? In that case, smile, and try to do better than him instead of 'shooting at the pianist'.

Wishing you lots of success and pleasure on the bands! My thanks goes to the good friends who were involved in this project.

English translation assistance was kindly provided by N1DG, tnx Don!

73 - Mark - ON4WW.

(April 2006)

