

Northwest Indiana DX CLUB

Volume 7, Issue 8

August 2019

President's Corner

Our next meeting will be August 10th. Same time and place. Noon central time at the Round the Clock restaurant in Chesterton on Highway 49. We will be in the middle room.

Vice President, Jerry Hess has Craig Thompson – K9CT coming to speak to us.

You won't want to miss this meeting.

73

John W3ML

Good DXing!

NWI DX Club Website

<http://nwidxclub.weebly.com/>



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- 1 President Speaks
- 2- Member News/DX News

Reminder, the NWIDX Club has a club call W9NWI.

The call is available to members for use during contests, special events, Field Day, etc. To schedule dates for its use, contact the trustee, Steve Mollman – KD9HL. kd9hl@arrl.net

QSL cards are available.

Notice:

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DX FOR AUGUST 2019

4-Jul	2019 Aug08	Corsica	TK	2019 Jul31	2019 Aug07	St Paul I	CY9C
2019 Jul06	2019 Aug09	Palestine	E44WE	2019 Aug01	2019 Sep01	Ecuador	HC2
2019 Jul20	2019 Aug03	Vietnam	XV9DXB	2019 Aug01	2019 Aug10	Lord Howe Is	VK9APX
2019 Jul20	2019 Aug11	St Kitts & Nevis	V47JA	2019 Aug03	2019 Aug17	Aland Is	OH0UDG
2019 Jul21	2019 Aug03	St Lucia	J6	2019 Aug03	2019 Aug17	Madagascar	5R8PX
2019 Jul21	2019 Aug03	Vanuatu	YJ0GA	2019 Aug04	2019 Aug16	Georgia	4L
2019 Jul22	2019 Jul29	Cape Verde Is	D44TEG	2019 Aug06	2019 Aug18	Maldives	8Q7GB
2019 Jul23	2019 Jul31	Crete	SV9	2019 Aug08	2019 Aug12	Madeira	CR3EE
2019 Jul23	2019 Aug05	Gambia	C5SP	2019 Aug10	2019 Aug18	St Pierre & Miquelon	TO5M

2019 Jul27	2019 Aug05	Ecuador	HC1MD/2	2019 Aug17	2019 Aug24	Market Reef	OJ00
2019 Jul28	2019 Aug01	Guernsey	MU	2019 Aug23	2019 Sep02	Solomon Is	H44
2019 Jul31	2019 Aug07	Maldives	8Q7SU	2019 Aug31	2019 Sep17	Burundi	9U3TMM

By permission of NG3K, <https://www.ng3k.com/Misc/adxo.html>

Also from the ARRL Weekly DX Listing (<http://www.arrl.org/w1aw-bulletins-archive/ARLD029/2019>)

Includes operations during RSGB IOTA Contest: 7X-Algeria, 9A-Croatia, 9M6-East Malaysia, B-China, BV-Taiwan, CN-Morocco, CT-Portugal, DU-Philippines, ES-Estonia, EX-Kyrgyzstan, FO-Australs, IS0-Sardinia, OJ0-Market Reef, OZ-Denmark, PA-Netherlands, PY0F-Fernando De Noronha, SV- Greece, SV9-Crete, UA-European Russia, VK-Australia, VK9L-Loard Howe, YJ-Vanuatu

73's and good DXing,
Jerry, W9KTP

Handy Hint

By Steve Mollman-KD9HL

Frequency Calibration

This month's Handy Hint is courtesy of Don Wilhelm-W3FPR writing in the Elecraft Reflector.

A common comment is "I am concerned about Frequency calibration and the reference source's calibration." Without a good frequency counter, most of us use "beat calibration" with WWV on 15 MHz Even with good ears it is no match for a good frequency calibrator.

You don't need a highly accurate frequency counter. You can get close with the "Beat Note Method".

Use an audio spectrum analyzer (like Spectrogram or SpectrumLab) with your computer's soundcard Line In. That will give you a visual display. When you turn on the rig's SPOT, if the two audio frequencies are far apart, you will see both of them.

When both frequencies are quite close, they will appear as one signal. When they are VERY close, you will see the "signal" begin to oscillate in amplitude - when the oscillation slows to zero that is the beat point you are seeking. In practice, it is difficult to get it to exactly zero, but get it as slow as possible - one or two oscillations each minute is practical using that method.

If you need Spectrogram (a Windows application), go to Don's website - www.w3fpr.com and scroll to near the bottom of the opening page to find the links. These are internal links on his website and the files have been thoroughly scrubbed for virus -even though Norton does not like them because they don't have a large enough user base for Norton.

There are also audio spectrum analyzers for Mac and Linux operating systems that can also be used.

◀73's and good DX▶

Do you have a Handy Hint that you would like to share? Contact Steve Mollman at KD9HL@ARRL.net

New FAA Regulations Require Some Towers Under 200' to be Marked

Not as big an issue for Hams as it appears

By Steve Mollman-KD9HL

On July 8th QRZ.Com News (Note 1) published an article about new Federal Aviation Administration (FAA) rules that would supposedly require marking and registration of **all** towers under 200 feet in height. This was an interpretation of the new requirements in the FAA Extension, Safety and Security Act of 2016 and the FAA Reauthorization Act of 2018.

However, according to the legal gurus at the ARRL, the language in the FAA **Reauthorization Act of 2018** excluded all but a small number of Amateur Radio towers from marking and registration requirements.

Some key points the ARRL made are:

- (1) Towers covered by the rules are structures at least 50 feet tall that support an antenna and are located in a rural area or on farmland or immediately adjacent to such land.
- (2) According to the Act, the term “covered tower” **does not include** any structure that is adjacent to a house, barn, or other building, and “is within the curtilage (Note 2) of a farmstead or adjacent to another building or visible structure.

ARRL Regulatory Information Manager Dan Henderson, N1ND, explained that, while a few Amateur Radio towers will fall under the Act’s marking requirements and will have to be registered, **towers in residential yards or within farmsteads are specifically exempted**. Thanks to lobbying by ARRL, the bill’s original language was amended to the extent that most amateur towers, as well as residential towers used for over-the-air TV reception, were effectively exempted from marking requirements.

The only towers less than 200 feet tall that have to be painted and lighted are *meteorological aids and those within the glide slope of an airport or heliport*. The remainder of such towers **in rural or agricultural areas lower than 200 feet need to only** be included in an FAA-maintained database, which will be updated by the owners of such towers.

Apparently the reason behind the new regulations was a number of accidents involving agriculture aircraft (crop dusters) and medivac helicopters colliding with unmarked towers. With certain exceptions, aircraft are generally prohibited from flight below 500 feet above ground level (AGL) when operating over “sparsely populated areas” and 1000 feet AGL over populated areas. (Note 3)

Note 1-[Forums.qrz.com/index.php?threads/new-faa-regulations-require-towers-under-200-to-be-marked.665671/](https://forums.qrz.com/index.php?threads/new-faa-regulations-require-towers-under-200-to-be-marked.665671/)

Note 2- In law, the **curtilage** of a [house](#) or [dwelling](#) is the land immediately surrounding it, including any closely associated buildings and structures, but excluding any associated "open fields beyond",
 Note 3 - Federal Aviation Regulations, Part 91.119, Minimum Safe Altitudes.



BITS AND TAPS **WORKING SMARTER**

In order to make a threaded hole in a piece of metal (1/8" or thicker) you need the correct size drill bit and a tap from a "Tap and Die" set. The choice depends on the size of the machine screw you want as a fastener. Over the past decades to make a hole for a #6-32 screw I have been using a 7/64" drill bit. Using a #6-32 tap, it works fine, however, the taps eventually snap in two. The situation was even worse with #4-40 taps. Time to rethink this process.

Many years ago, a grizzled old woodworker often referred to "Numbered" drill bits instead of the more common fractional ones. Numbered bits are used frequently by machinists but are not that common in general use. Referring to the little reference book that came with my Tap and Die set, every screw size is associated with a "Numbered" bit. I did find "Numbered" bits at ACE Hardware but they are not cheap. I found a complete set online for \$33* which made a nice Father's Day present. Why didn't I do this decades ago? It takes much less effort to make my taps now and I get a nice fit every time and I'm not breaking taps! Next month I'll put together a practical application which I hope you will enjoy.

73's and happy building,
 Jerry, W9KTP

- https://www.amazon.com/Tools-Numbered-Drill-Speed-Drilling/dp/B010619DA0/ref=pd_rhf_sc_p_img_7?_encoding=UTF8&psc=1&refRID=KDKGGV1AR1R0R9JCNDJG

AMERICAN STANDARD AND METRIC TAP DRILL SIZES								
Tap Size	Std.	Drill Size	Dec. Equiv.	Nearest Fractional Drill Size	Tap Size	Std.	Fractional Drill Size	Dec. Equiv.
4 x 40	NC	No. 43	.0890	3/32	7/16 x 20	NF	25/64	.3906
6 x 32	NC	No. 36	.1065	7/64	7/16 x 14	NC	3/8	.3750
8 x 32	NC	No. 29	.1360	9/64	1/2 x 13	NC	27/64	.4219
10 x 32	NF	No. 21	.1590	5/32	1/2 x 20	NF	29/64	.4531
10 x 24	NC	No. 25	.1495	5/32	9/16 x 12	NC	31/64	.4844
12 x 24	NC	No. 16	.1770	11/64	9/16 x 18	NF	33/64	.5156
1/4 x 20	NC	No. 7	.2010	13/64	5/8 x 11	NC	17/32	.5312
1/4 x 28	NF	No. 3	.2130	7/32	5/8 x 18	NF	37/64	.5781
5/16 x 18	NC	17/64	.2656	17/64	11/16 x 11	NC	19/32	.5937
5/16 x 24	NF	17/64	.2656	17/64	11/16 x 16	NF	5/8	.6250
3/8 x 24	NF	21/64	.3281	21/64	3/4 x 10	NC	21/32	.6562
3/8 x 16	NC	5/16	.3125	5/16	3/4 x 16	NF	11/16	.6875
1/8 Pipe		5/16	.3125	5/16	1/4 Pipe		7/16	.4375
Tap Size	Drill Size	Dec. Equiv.	Nearest Fraction	Tap Size	Drill Size	Dec. Equiv.	Nearest Fraction	
3mm x .50mm	No. 39	.0995	3/32	8mm x 1.25mm	17/64	.2656	17/64	
3mm x .60mm	3/32	.0937	3/32	9mm x 1.00mm	5/16	.3125	5/16	
4mm x .70mm	No. 30	.1285	1/8	9mm x 1.25mm	5/16	.3125	5/16	
4mm x .75mm	1/8	.125	1/8	10mm x 1.25mm	11/32	.3437	11/32	
5mm x .80mm	No. 19	.166	11/64	10mm x 1.50mm	"R"	.339	11/32	
5mm x .90mm	No. 20	.161	5/32	11mm x 1.50mm	3/8	.375	3/8	
6mm x 1.00mm	No. 9	.196	13/64	12mm x 1.50mm	13/32	.406	13/32	
7mm x 1.00mm	15/64	.234	15/64	12mm x 1.75mm	13/32	.406	13/32	
8mm x 1.00mm	"J"	.277	9/32	1/8-288SP	21/64	.3281	21/64	

Special Guest for August 10 Luncheon

Craig Thompson – K9CT

Through the hard work of Jerry Hess-W9KTP, we will have a special guest for the August 10th meeting- Craig Thompson-K9CT.



Craig will be talking about contesting and also about the upcoming VP6R Pitcairn Island DXpedition. (October 18-November 1, 2019)

An experienced DXpetioner, he has been on at least eleven Dxpeditions including such exotics as Swains Island, Conway Reef and Amsterdam Island. He was a member of the dangerous and aborted 3Y0X Bouvet Island DXpedition of 2018.

Craig Thompson has been licensed since 1967 and has been a Contester and DX'er ever since. He is currently on the Honor Roll with 360 DXCC Entities and DXCC Challenge with 2970 entities. His station has logged 491,710 QSOs between 1967 and 2019.

An extremely active and able contester, he is known for his huge contest station near Peoria, IL. Besides running a very busy business he is also President of the Society of Midwest Contesters, serves as the Central Division's representative to the ARRL [Contest Advisory Committee](#) and is an emcee at the annual W9 DX Convention.



The K9CT Contest Station near Trivoli, Illinois (note two of the eleven towers visible on the left)

He will be joined by Anthony Willard, AB9YC, a board member of The Society of Midwest Contesters.

This will be a very enjoyable and informative meeting and one that you will not want to miss. The luncheon is at 12 Noon CDT, August 10th at the Round The Clock Restaurant, 1607 S Calumet Rd, Chesterton, IN.



This link was sent in by Tom W8FIB.

https://www.sigidwiki.com/wiki/Signal_Identification_Guide

Breaking News: This email just arrived tonight 7-27-19

All of you that need Hawaii on a certain band your chance is coming up.

Hawaiian QSO Party

Please save the dates: **Aug 24-25** for the **Hawaiian QSO Party**

The HQP will run from 0400Z 24 August to 0359Z 26 August. Work as many HI stations on as many bands and modes as you can. Complete rules:

<http://www.hawaiiqsoparty.org/Rules/HQP/HQPRules-2019-A.html>

Please report your score to <https://www.3830scores.com/>

Please send in your log, no matter how big or how small here: <http://www.b4h.net/hqp/hqpsubmitlog.php>

Non Cabrillo logs of any format can be emailed to me directly although Cabrillo is much preferred.

The only changes from before is a new definition of the district boundaries which are based on zip codes. A map can be found

here: http://www.mapability.com/ei8ic/maps/hawaii_qso_party_regions.php

While most QSO parties use their counties as multipliers, here in Hawaii we only have five counties so we've expanded the multiplier list to use "districts" instead which roughly follow the ancient Moku.

Also, the KS and OH QSO parties will be running at the same time. There's no problem working those folks and logging them with the county names they give you assuming your logging program allows you to do that. Send a copy of your log to those QSO Party organizers and also to HQP at the above URL Note, if you work someone in Lana'i please use the abbreviation LNI rather than LAN which may be confused with LANE county in Kansas.

All digital modes are considered "digital" so there are three modes to use: CW, Phone, Digital. Hopefully, the WX will cooperate and we'll have some excellent conditions.

With Aloha,

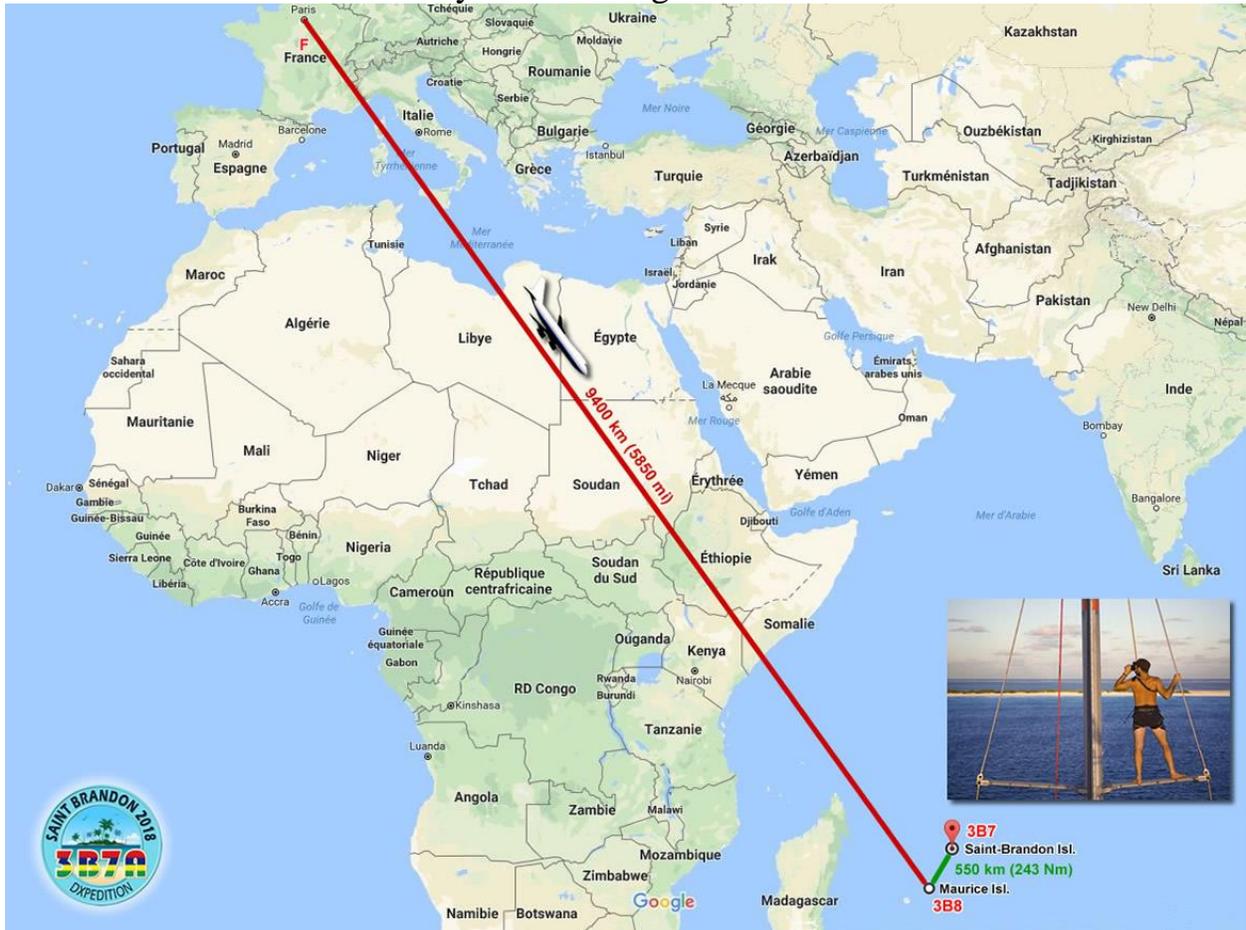
Alan AD6E / KH6TU

HQP Chairman

3B7A - Saint Brandon Archipelago DXpedition

April 5 to 17, 2018

By Thobie Diégo-F4HAU





After the undeniable successes of FT4TA Tromelin in 2014 and FT4JA Juan de Nova in 2016, the team was ready to start another challenge. This time our adventure would land us on L'île du Sud in Mauritius' St. Brandon archipelago, operating under the call sign 3B7A. This formidable operation was controlled to perfection by Sebastien Poulenard, F5UFX, and Florent Moudar, F5CWU, and profited from the proven experience of Vincent Colombo, F4BKV. In addition, Michel Brunelle, F6AGM, advised us on the basis of his experience of 3B7C in 2007. A long-awaited rendezvous on Sunday, 1 April 2018, the team met at Paris-Orly Airport, smiling and ready for new adventures! Patrick Bit-tiger, F2DX, introduced us to Jean-Baptiste Jacquemard, F8DQL, who offered his help to maintain the website during our absence. Laurent Rigal, F8ATM, our new "rookie," joined the team and everyone welcomed him warmly!

After going over our checklist, we divided our equipment up to fit into different suitcases in order to avoid extra luggage fees, keeping fragile equipment in our carry-on bags. Although we boarded on time, mechanical problems kept us grounded until the following day. With that 24-hour delay, our schedule was tightened and the pressure went up, but the team's morale was excellent.

Vincent, F4BKV, had flown from Barcelona, Spain, a few days prior so he was already waiting for us in Mauritius. Finally enroute, we encountered a longer-than intended stopover at Réunion so we quickly reorganized some logistical points with Vincent, F4BKV, by telephone. Thanks to the help of a Mauritian friend, we organized our transfer from the airport to the harbor area, and purchased some necessary equipment for the expedition. Once

we reached Mauritius, we traveled by taxi to the harbor on the opposite side of the island, where our first boat would depart Port Louis that evening.

As a result of the cumulative 27-hour delay, our flexibility was reduced to nothing. Florent, F5CWU, and Pascal Roha, F5PTM, immediately embarked on one of Raphaël Fishing Company's (RFC) fishing boats taking with them our food, water, fuel and ice, plus crates of equipment sent several weeks earlier. Each crate had been unpacked and checked to be certain that nothing was missed or damaged. With the formidable work of Florent, F5CWU, on logistics, assisted by Patrick, F2DX, many problems were met and managed throughout the months of preparation.

Other tasks were distributed between the various team members who tested the configuration of the stations, in particular the TRX SunSDR2 PRO over several weeks.

A 100% SDR expedition, the bet was on; however, we had already received much positive feedback (including our own from FT4JA). We also tested our secondary equipment, including our coaxial "Messi & Paolini," low band system bandpass filters, and laptops during contests for their reliability and to accustom ourselves with their use.

Concerning the antennas, once more we chose the two-element vertical dipole array built by Vincent, F4BKV, for high bands, and the usual low band configuration, which showed their efficiency during our last expedition under similar conditions.

Our only main concern was related to electricity. We didn't know the state of the rented generators — how they were maintained and under which conditions they worked. On the islands, equipment suffers a lot. Unlike FT4JA, where we had new generators, tested, approved and maintained by our care, this time we had to cope with another configuration and trust in equipment that is key to the mission, but without any control before starting the operation. We did not want to take any risks, so we had several alternative solutions while keeping an eye on our expenditures.



We are ready! On 5 April, most of the team members were still in Mauritius, but the day started with the news that Florent, 5CWU, and Pascal, F5PTM, had arrived after 26 hours at sea, and had gone ashore with all equipment. They were even able to check and start the generators and everything was running smoothly.

The rest of us embarked on the Paille en Queue, which was smaller than the first boat, but well-equipped for this kind of journey, and, 26 hours later, we could distinguish the island just above the horizon and an imposing shipwreck grounded on the reef.

Located approximately 420 kilometers from Mauritius, this archipelago is composed of small islands and sand banks and has been managed by RFC since 1928. The island is a long, sand bank just a few meters above sea level with many tropical bushes. Birds were everywhere and were nesting when we were there. Near the three coastguard houses, palm trees lined a path leading to three other small concrete buildings where company workers reside. One of the buildings was the guesthouse.



This small paradise is a haven for nesting birds, with the white tern being the main species with which we coexisted throughout our stay. As usual with our operations, we did our best to minimize our displacements and limit the deployment of equipment in order not to disturb the birds. Several birds nested on the window's edge of our small house and, toward the end of our stay, several eggs had hatched! On this archipelago it is the human who is the guest, not the birds!

We unloaded our remaining luggage and observed some VDAs already in-stalled, as well as the 30-meter 4-square on the northern beach. On the ground, other antennas were already prepared and waiting to be erected thanks to the excellent work of Florent, F5CWU, and Pascal, F5PTM, who had arrived the day before and had already assembled the stations. The morale and motivation was good and the group's cohesion was fantastic. Without losing a minute, the team started working despite the heat, and our first QSO was completed on 20M

SSB at 19h00 UTC with EA7/OH3ELB. We started our activity on 17M SSB, 40M CW and 30M RTTY and all operators were smiling as soon as the pileup intensified, in spite of our tiredness and the 30°C temperature in the patio.



Operations underway at 04h00 UTC on 7 April, Gil Sauvage, F4FET, announced that the 4-sqaure installed on the beach worked like a charm and that propagation with the US was great with the sunrise. It was excellent news! Before tempera-tures climbed, we needed to assemble the verticals for 80M and 160M, and set up receiving antennas for EU/US and JA in order to start low-band operations that evening. The day was excellent in spite of not very positive propagation predictions, and at 20h30 UTC, the log showed 9,000 QSOs — we were very satisfied and encouraged by the results in our first hours.

Sunday, 8 April, marked Patrick's, F2DX, 60th birthday and we took a short break to toast him. We also took advantage of that off-radio moment for a debriefing and to share the comments received at that point. Our chief pilot, Michel, F6AGM, who was in touch with other pilots, gave us important information through our satellite connections and that allowed us to adjust our schedule.

The SunSDR2 PRO worked marvelously well — what a powerful product in a small box — the settings chosen prior to the expedition were satisfactory. The VFO (E-coder) was ludic and gave access to the main functions. The association of the SDR was perfect with our lightweight amplifiers Expert SPE 1.3K in whatever mode of traffic was used. The visualization of the pileup via the spectrum displayed on the laptop was impressive and extremely useful to manage the traffic.

We observed excellent openings toward Europe and our Japanese friends and their signals were impressive on the different bands. The traffic was fluid — much more compared to our previous operations — thanks to less call repetitions. That evening, around 17h00 UTC, a short opening toward the US appeared on 17M and 20M; some of them were very loud. While some team members were busy with pileups, others were trying to improve our RX antennas and a phasing of KD9SV flag was added that afternoon. Vertical dipoles were installed to give us the opportunity to work with two stations on 20M and 15M, which were the most productive bands. We wanted to be present as long as the band was open to give a chance to all, particularly for those in the most difficult zones.

The 80M and the 160M stations were active and logged many stations; the propagation conforming to what we were expecting and by that evening we had logged 15,000 QSOs. On Monday, 9 April, conditions on the high bands were far from being identical to the previous days. The NA stations were very weak but we were conscious of the situation and redoubled our attention on them. JA, NA and EU pileups were sometimes on top of each other and management was a bit complicated from time to time, but we topped 25,000 QSOs as we greeted our buddy, Cédric Morelle, F5UKW, who was our control station during FT4JA. The low bands remained productive with all the continents as conditions evolved, in particular on 10M, which was under monitoring, and we used it to work many stations on CW and SSB. On the other hand, 20M and 17M closed prematurely.

Pushing through Thursday, we were all feeling the tiredness, with most of us getting just a few hours of sleep in the heat. Undoubtedly, the group's cohesion made it possible to combine the relaxed environment and effectiveness during our shifts. On the beach, we had to regularly check the guying of our masts and some anchor points had to be reinforced. Sebastien, F5UFX, continuously pointed out propagation slots not to be missed toward certain areas of the globe and Pat, F2DX, prepared a document showing the VOACAP/K6TU predictions. With such information we knew where to listen, but the signals on 80M were weak and the noise level was very high.

The 160M station was close to 1,000 contacts using a Spiderbeam 18-meter mast with a wire hat — provided by our friend Cornelius, DF4SA.

We underwent DQRM, which made the pileup difficult to control. It is a pity, especially when the bands are favorable to offer many ATNO. Throughout the day, however, Laurent,

F8ATM, and Gil, F4FET, blackened the logbook in RTTY at a good rate, helped by the spectral visualization of the SDR. That was a real plus! By the end of the day we approached 50,000 QSOs, well on our way to achieve our goal of 70,000! Wrapping it up In spite of the difficulties and our tiredness, our morale was still excellent going into our last weekend. The CW rate was higher than SSB, especially when the conditions were not very good, and we didn't hesitate to exploit most of the bands on CW to keep a good rate. As soon as the signals grew, we switched on SSB. Unfortunately, that Saturday evening the conditions were particularly bad and 17M and 20M closed rather early. Sebastien, F5UFX; Patrick, F2DX; Florent, F5CWU, and Pascal, F5PTM, gave their maximum on CW in spite of the disturbances and those who were calling obstinately when a QRX was asked. On Sunday, while some continued the traffic, others started disassembling the camp. We kept only the antennas that would be used by Gil, F4FET, and Diego, F4HAU, the two operators who were staying on for two more days, departing on the other boat. All the equipment had to be arranged properly so that it all fit back into the crates for the return trip, as once we reached the harbor, we wouldn't have time to recondition everything. That evening we had reached 69,000 QSOs and we wanted to work the missing 1,000 on our last night, but overnight propagation was very bad and we weren't able to keep all stations on the air. In the morning, six team members left the island and, suddenly, there was silence after 10 days of intensive activity! The peace of that place reappeared and it was as pleasant as it was perturbing. Gil, F4FET, and Diego, F4HAU, were entrusted to go beyond the 70,000 contacts and complete the logistical operations, so the two-person team sat down again at their radio stations for their last moments on that IOTA in the middle of the Indian Ocean. PAØMDB was our 71,158th and last QSO, contacted on 30M RTTY. We had a general feeling of relief, satisfaction and joy.



All this adventure was carried out as a team, and what a team! Thank you. We very sincerely thank all our sponsors for their confidence and their fidelity! Although each operator finances his own travel, housing and an important part of the expenses related to the expedition, another significant part is covered by the sponsors, professionals, associations and clubs, and individuals. These supporters are essential in this kind of adventure and we take our hats off to all those who have been involved in the adventure and made of this project a success. Thank you, also, to our pilot stations (F6AGM, N6PSE, JJ3PRT, LU5FF, ON9CFG), in addition to our families and friends who always answered when we needed some help. On behalf of the team, I thank Sebastien, F5UFX; Florent, F5CWU; Vincent, F4BKV, and Patrick, F2DX, for their remarkable work so that this project became a reality. I also thank the rest for the team, made up of Pascal, F5PTM; Laurent, F8ATM; Gil, F4FET, and, in support, Michel, F6AGM, and Jacques, F6BEE. I appreciate this team, a small and true family. For sure those guys are more than simple friends. Thank you for these good

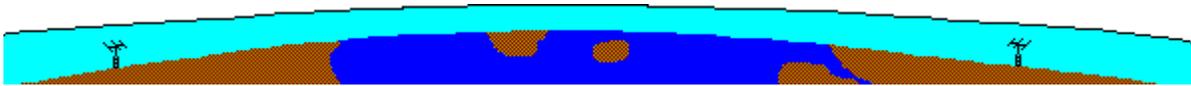
moments in that so peaceful place and for the attention that each one carries to the others. Only one question remains since our return to France: With this cohesion and this desire of going always farther, over our own limits, where will it carry us the next time?

This article is courtesy of the Northern California DX Foundation. The NCDXF relies heavily upon the generosity of its contributors to fund various projects, including this DXpedition. We ask you to consider making an annual contribution of US-\$50 or its equivalent in foreign currency. If \$50 is not within your budget, then please give what other amount you can. Naturally, they welcome contributions in excess of \$50! NCDXF is an organization described in Section 501(c)(3) of the Internal Revenue Code and all contributions are tax-deductible to the extent permitted by law for U.S. taxpayers. Send your contribution to: NCDXF, P.O. Box 2012, Cupertino, CA 95015-2012, USA. You may also contribute and order supplies online via their secure server, visit www.ncdxf.org/donate

We still have some items for sale of Rich's K9QA and others on the Starke County Club For Sale page at <http://www.w9joz.org/forsale.htm>

His tower, for those that don't know, is a solid steel leg PiRod tower that sold for over \$15,000.00. We are asking \$3000.00, but you must take it down. It is 4 sections of 20 feet in length for a total of 80 feet.

I want to thank those that have been sending in articles for the newsletter. All items are appreciated.



**Until Next Time,
73**

John
W3ML

<http://nwidxclub.weebly.com/>



DX

THANKS
Thanks for visiting!

