INDEXA

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Marquesas Islands TX7T

by Robert Brandon—K5PI

The team met in Tahiti three to four days early and operated with limited antennas from Mahina (near Papeete) using our FO/ home callsigns. We logged approximately 1500 QSOs and operated one night on 80M and one night on 160M. We received quite a few inquiries from ops hoping to work French Polynesia on the low bands. This might be a good holiday style DXpedition for the future.

We learned that the VP6R team was in Tahiti for one night on their way home, and we arranged to have dinner with them. It was fun, and we got lots of good information about their experiences.

F6BCW left for the Marquesas on November 3, and the rest of the team flew to Hiva Oa on November 6.

Out team consisted of eight operators and we were active from Hiva Oa (OC-027) in the Marquesas Islands, November 6-19, 2019. In total, we made over 31,000 QSOs with 136 DXCC countries. At the time of the DXpedition the Marquesas Islands were #59 on the ClubLog Worldwide Most Wanted List, and #28 for Europe.

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The CanAm DX Group is a loosely organized team of individuals that has made a number of DXpeditions over the last 15 years. The group has never made a tents-and -generators DXpedition. The emphasis has instead been on relatively rare countries that are accessible by air.

The TX7T group included Robert Brandon K5PI, team leader; Madison Jones, W5MJ, who has been the team leader in past years; Keith Witney VE7KW; Neil King VA7DX; Bob Feldtman W5RF; Bill Priakos W5SJ; Bob Allphin K4UEE; and Didier Cadot F6BCW. This was Didier's first DXpedition with the group, although he worked with VE7KW on the TM100VIMY operation.

The Marquesas Islands are a group of 15 islands 1370 km northeast of Tahiti. The Marquesas Islands are a separate DXCC entity but part of French Polynesia, which is an overseas collectivity of France. The population of the Marquesas Islands is approximately 9300.

The first challenge for any DXpedition is finding lodging and a place to operate. The team spent a considerable amount of time looking for a beach location on the north side one of the four islands served by Air Tahiti. In 2014, TX7G had operated from a beach location on the north side of Nuku Hiva, but this family pension had closed. Available lodging was finally found on the south side of Hiva Oa, near the town of Atuona. This was not a beach location and was on the south side of the island. It was on the side of a hill. It had a clear view several kilometers down a valley to the north. About 1.5 km to the northeast, a hill rose about 50 meters above the TX7T site. Much of the path to the northwest was unfortunately blocked b a hill behind the operating location.

This terrain was not ideal, but F6BCW had operated as TX5EG with some success from this location in 2017. He said it was a quiet location, and he could offer advice on exactly where antennas might be located. Didier was able to negotiate an agreement to use some additional land above the pension for antennas. With this information, VE7KW developed an antenna plan that met the requirements of a three-station operation.

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One Hexbeam was used primarily for 12 and 20 meters and placed directly behind the pension.

A second, larger Hexbeam for 10, 17, and 40 was placed on top of the hill above the pension.

A homebrew Moxon for 15 and 30 was placed to the south of the pension.

A two-element vertical array for 40 (design by W4RNL) was deployed just below the pension. This antenna could be switched from NE to SW (LP EU) and proved to be the most effective antenna for 40.

A two-element wire beam for 80M was placed from the top of the hill down to a point just above the pension. This antenna is described in the June 2018 issue of QST.

A 160M inverted L was installed on an 18m fiberglass pole with two elevated radials. This was just above the pension.

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VE7KW & W5MJ

W5RF & W5SJ

VA7DX & F6BCW

Three Elecraft K3 radios were used, with a KX3 as backup. Three Expert 1.3 and 1.5 amplifiers were used, with a Juma PA1000as backup. A list of 238 accessories, cables, tools, etc. was developed and responsibility for these items was assigned to the team members. This included 650 meters of coax – all of which was used!

Equipment donations were received from Expert Linears, DX Engineering, Radiosport headsets, Messi and Paoloni, Gigaparts, and Quicksilver Radio.

The team had hoped to ship some equipment in advance, but it was too complex to ship items from four locations in the US/ Canada for consolidation by an agent in Los Angeles for shipping to Tahiti. Almost all equipment was carried as passenger luggage.

The lodging at Pension Kanahau was modest but very comfortable. Tania was a great host and an outstanding cook. The Marquesas Islands is the fruit and vegetable garden for much of French Polynesia, and we enjoyed a nice variety. Raw fish is a staple in all of French Polynesia, and the entire team enjoyed it.

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The pileups were very good, but most signals were not very strong. We made a special effort to work European stations, and they were especially weak. We found CW and FT8 to be the best modes given the conditions, although we used SSB when conditions were best.

We had no radio or amplifier failures and almost no interference between stations. We continued to work on the antennas, however, throughout the DXpedition. We deployed a pennant receive antenna and later a short beverage. We raised the large Hexbeam several feet, which was difficult with the wind on top of the hill. We modified the 160 from an inverted L to a tee-top. We briefly used a 17M vertical dipole. We deployed a two-element delta loop array for 20M. All this was a challenge in the hot sun, on the steep hillside, and with only two team members under age 70.

Band conditions were generally down from what we had hoped for.

We had only very brief openings on 10 and 12 meters, almost all to South America.

Our propagation predictions made us very hopeful about 15M conditions. Ultimately, however, only 10% of our QSOs were on 15. We had good success to NA but probably because of our terrain, only fair results to Asia.

We had high hopes for 17M, and it yielded 14% of our QSOs.

Tania & K4UEE

TX7T and VP6R Teams

(Continued from page 5)

As expected, 20M was the best band with 29% of the QSOs.

Forty meters proved to be our best band to Europe and our second best band overall (21%).

We made 16% of our 80m QSOs with Europe – better than expected. But we logged only 50% of our 80M contacts with NA, below our 59% overall NA percentage.

Top band was a struggle during the entire expedition. Unlike any other band, we had a fairly high noise level which seemed to be from a distant, man-made source. The beverage antenna helped, but did not eliminate it. Also, we received many reports that we were not loud. We felt our antenna was an "industry standard" design with a 60 foot fiberglass pole and elevated radials. On a band where every dB counts, our 500 watt power limitation was certainly a disadvantage. And of course, 160 propagation varies from night to night. We had two nights with more than 100 QSOs. These occurred in the middle of the trip and with our original inverted L configuration. The good news on top band was that 17% of our QSOs were to Asia. Two thirds of our JA 160 QSOs were made using FT8 with wide split. (Wide split is possible by turning WSJT-X split mode OFF.)

We met our goal of 30,000 QSOs and are happy that 13% of our QSOs were to Europe. Thanks to everyone for QRX during the limited EU openings.

CW was very productive, with more than 51% of the QSOs.

FT8 and FT4 were also important, with 35% of the QSOs. FT8 DXpedition (Fox-Hound) mode worked well at times, but we struggled with the same software issues as VP6R. It seemed that many stations did not have a correct FT8 WSJT-X Hound configuration, so we sometimes used FT4. We also made some QSOs in standard FT8, but that mode is very slow for a DXpedition. We would encourage all FT8 operators to use RS232 to connect the computer to the radio, and enable Split (Rig or Fake It). More information about WSJT-X DXpedition mode in several languages is here.

Chef Didier F6BCW

Lobster night!

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After the TX7T operation, FO/F6BCW remained on Hiva Oa for another week. QSL direct.

FO/K5PI operated from Fakarava (French Polynesia, OC-066) for about a week while enjoying some scuba diving. QSL direct.

For TX7T contacts, please QSL via the M0URX OQRS service.

We wish to thank INDEXA for their financial support of this project!

VE7KW, VA7DX, W5SJ, K4UEE, F6BCW, W5MJ, W5RF AND K5PI

TX7T STATS

BAND	CW	FT4	FT8	PSK	RTTY	SSB	TOTAL	TOTAL %
160	275	0	370	0	0	1	646	2.05%
80	1824	486	1163	0	0	42	3515	11.15%
40	4242	520	1326	0	1	571	6660	21.13%
30	1862	603	1095	0	0	0	3560	11.29%
20	4086	291	2275	0	0	2504	9156	29.05%
17	2318	341	1105	0	0	766	4530	14.37%
15	1467	234	1078	1	0	338	3118	9.89%
12	108	2	89	0	0	11	210	0.67%
10	58	2	45	0	0	20	125	0.40%
TOTAL	**16240**	**2479**	**8546**	**1**	**1**	**4253**	**31520**	**100.00%**
TOTAL %	51.52%	7.86%	27.11%	0.00%	0.00%	13.49%	**100.00%**	

A50BOC - Bhutan

BOC stands for Bhutan Olympic Committee

E21EIC DJ9ZB ON5UR KO8SCA

DJ9ZB JH1AJT

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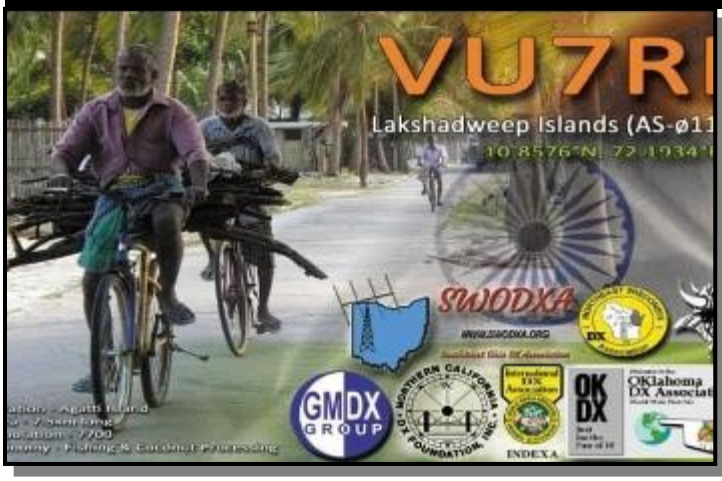

VU7RI – Lakshadweep Dxpedition - October 19th – October 30th, 2019 By Shabu Ramakrishnan, MØKRI

I really enjoy remote portable operating and, having spent a couple of weeks operating holiday-style down in Burundi as 9U4RI, in 2019, I thought that I would like to go somewhere a bit more exotic. However, there were many considerations; where to go that was fairly high on the DX wanted list, when to go, with whom. what equipment to take, which antennas to use and the logistics of travelling to the remote site, to name the key ones. The germ of this idea was born in my mind during April 2019. Being originally from India, it made some sense to look at some rare, but familiar, locations around the Indian sub-continent, such as islands in the Arabian Sea or Indian Ocean. The choice of location was Agatti Island in Lakshadweep (VU7), one of an inhabited group of 36 atolls and coral reefs off the coast of Kerala, India. VU7 was number 55 on the Club Log's "Most Wanted List". This location met most of the above criteria.

The Team

Having chosen my destination, I shared my VU7 enthusiasm with my old-time home QTH friend Sree, VU2OB, works for a national newspaper in Delhi. He seemed very keen on the idea but was uncertain if he would be able to join me for the two weeks because of his work commitments. However, he was very willing to help procure the VU7 license and provide moral support. We really needed at least three persons in the VU7 team, so I asked my childhood friend Samson, VU3XTG. Sam was quite excited about the prospect of working a pile-up of stations from a remote island and made movements to help me procure local assistance on the island in terms of accommodation. Unfortunately, owing to unforeseen personal circumstances Sam was unable to join the team for the DXpedition. So, we invited Ashraf, VU3MTY from Calicut, who is a close friend of Sree. He is a passionate amateur radio operator and goes beyond the hobby, actively participating in disaster relief projects on an ongoing basis. So, he was an ideal candidate for the team. None of the team had any real "DXpedition" experience but they did have enough operating skills to form a good team. So, the team consisted of Sree, VU2OB, Ashraf, VU3MTY and me, Shabu, M0KRI (ex VU2CAC).

We had decided that October was a good month to go for several reasons, not least of which was that it coincided with the half term school holidays here in the UK, but also, the monsoons would be over and we would be able to enjoy blue skies all day (ideally), plus, we would expect HF propagation to be good.

The License

This is not just a matter of buying an airline ticket and travelling to Lakshadweep and operating. To secure a license to operate from VU7, you need to obtain a "Notice of Variation" from the Ministry of Communications in Delhi, the Capital city. Secondly, even an Indian citizen needs permission and sponsorship to visit the island. This permission must be granted from Delhi. There are no regional or state level centers who would grant this, so, getting there and operating in VU7 is a long process. Samson, VU3XTG finally made a contact from Kavaratti Island who offered to help us and arrange accommodation and the local logistical support. However, we needed that contact to sponsor us and, in order to do this, he needed to regularly communicate with the officials. The sponsorship did not seem to be forthcoming; the contact person simply said, "You will get the help when you arrive." In other words, we needed to have official permission to go there and to have arrived before we would receive local assistance. At this point, Sree, VU2OB, said it would help our cause to have the Member of Parliament for Lakshadweep sponsor us for "entry on to the island". At this time, elections were taking place in India and we needed to wait to see who we could approach to request the sponsorship. Finally, the Honorable Member of Parliament, Mr. P.P. Mohammad Faizal, helped us with this aspect. Sree was already in Delhi and was able to obtain the temporary license to operate as VU7RI from the Ministry of Communications. So, it all came together nicely in the end.

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Equipment & Antennas

After the experience from my previous solo DXpedition to Burundi earlier in 2019, I had realized that it was important to carry an HF amplifier when visiting exotic places like VU7. If I were to make the most of the rare callsign, it was important that my signal should be heard using directional antennas and the legal limit of power. Naturally, there were weight considerations, especially as the small aircraft taking us from Kochi to Agatti Island in Lakshadweep would only allow 15KG maximum weight of luggage per passenger and it was unclear whether we would be allowed to exceed this limit because of safety constraints. Therefore, large commercial HF amplifiers were out of the question. Fortunately, my good friend Fred, G3SVK kindly agreed to loan me his Expert 1.3 FA amplifier, which is considerably lighter than most other commercial HF amplifiers. We also decided to take a Kenwood TS-480 SAT, Icom IC706 MK2G, Yaesu FT-857D and a Furuno HF amplifier. We also carried a DX Commander and a G3TXQ Hexbeam as well as other off-center-fed dipoles for FT8 low power digital operation, inverted Vee dipoles for 80/160M. Between us, Sree and I carried more than 60 Kg of equipment. So, after some careful negotiation, additional permission and the payment of 9 US dollars per additional Kg, we were allowed to take the extra baggage. This was in addition to the extra baggage fees I had already paid Gulf Airways for the flight from London to Kochi and return. A 100 Kg worth of accessories were coordinated by Ashraf, VU3MTY and sent using the cargo section of a passenger ship from Calicut in India a week or so prior to our travel. These accessories included all sorts of tools, earthing spikes, wires, cables, etc. that were too heavy to hand-carry by aircraft.

Forward Planning

It was important that all the equipment should be tested prior to departure because once we were on the island there would be nowhere to buy additional cables, plugs or sockets etc. An inventory was constructed to ensure that we took everything we needed at the remote site. Laptops with logging software was a main priority along with power supplies and leads. We carried out some last-minute testing to ensure that the main rig would key the amplifier correctly through the CAT and ALC leads. This initially caused a bit of a headache as the CAT lead didn't key up the amplifier. Using a different lead cleared the problem, Phew!

We had set up a website giving full details of the DXpedition (www.VU7RI.com). This included a schedule setting out when we intended to be active on the various bands including CW, SSB and FT8. This schedule was designed to be flexible to accommodate local band conditions.

We were aware that there was no internet connection on the island, so uploading logs would be difficult. I was able to send texts from my cell phone and I was able to keep in contact with the outside world which proved to be very helpful at certain times throughout the DXpedition. My mobile bill increased by £150 that month to cover the cost of these texts.

Travel and Accommodation

The hotel owner is a well-educated guy. He has a "Master's Degree" in physics from Kerala University but had decided to help his father running the family business rather than taking up a career in physics.

Sawad, the caretaker, a friendly but sharp guy, referred the Special Branch police to me as they were a little suspicious about the 6m wide Hexbeam we had erected at the beach. I had to politely explain that this was only a hobby and nothing concerning security. I explained this very innocently and the policemen went away.

Our housemaids at the hotel were two girls who did all the cooking for us. The local people on Lakshadweep are very friendly, loving and caring. The local industry is mainly coconut processing and fishing. There are plenty of coconut trees on the island. Tourism is

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another form of income and local beach huts have been erected to take

tourists. Some of our local neighbors prepared snacks at their home and brought them to us. We even had a visit from the local policeman who has an interest in radio communication.

On 29th October we were able to give a radio presentation and demonstration to a group of 40 students and staff at the government-run high school. The idea was that we would introduce them to amateur radio in the hope that some might become amateur radio operators someday. The demonstration and presentation were well received by the staff and students and their appreciation was very evident. Thanks to Wilfred Master.

Radio Operation

As we were very tired after our long journeys, we decided that we would just erect a simple “off center fed Dipole” antenna and make a start using FT8. We accomplished this in less than half an hour and we were “on the air” using the normal FT8 mode as I had only had a few weeks experience using FT8. After some excellent tuition from various articles, I soon got to grips with FT8 using DXpedition mode. I thoroughly enjoyed working more than a thousand stations in the first couple of days, at least until the clock on the laptop went of sync. This was a real challenge as we had to guess the accurate time in seconds and tweak the FT8 settings to bring it back in sync.

On the second day, we decided to erect the DX Commander multi-band vertical antenna that we had brought with us. The wind was quite strong, so we tied this to one of the nearby coconut trees. This worked OK although the top was swaying about causing the VSWR to fluctuate which affected the amplifier; mostly this worked OK.

We could hear absolutely nothing on the bands between 9am (local time) till 1pm every day. 15M started to open between 2pm and 6pm allowing us to use either CW or FT8 during this time. 20M started to open between 6pm till 10pm. So, there was not a very large operating window. We used SSB and some CW during this opening. 40M would be open from 2am till 7am allowing us to work some CW and SSB. Between 7am and 9am we could only work mainland India on SSB. We managed some 80M during the night. I was mainly operating on CW and FT8 keeping the bands busy as much as we could, while Sree was operating mainly SSB.

On our first excursion onto 40M CW, there was a very strong station pirating our callsign. It is likely he has been transmitting from the Indian mainland as his signal was very strong. He was working a pile-up of stations. I sent a text message to Fred, G3SVK, back in the UK, asking that he put the information on the DX cluster to alert stations that our callsign was being pirated. Fred did this straightaway and very soon the pirate stopped transmitting and I was able to resume my operation. From then we were able to keep to the schedule that we had advertised on our website.

Difficulties and Challenges

Our first obstacle was the fact that there was no internet coverage where we were based. The island does have internet at about 64kbps speed but not on every part of the island. So, using data modes was out of the question and none of our cell phones could connect to the internet either. Fortunately, I was able to send SMS spasmodically. I had to cycle to the local teacher’s home on most evenings at 9pm to time-sync the laptop with his internet connection; this was very time-consuming.

We also had to rise to another challenge: There is a seasonal rainfall during the month of October, which is usually “fairly light” and

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not as strong as the Monsoon during June and July. However, the “Thula Varsham”, as it is called, was very different this year. The first cyclone to come, called “Kyarr”, hit part of our island. This caused the antenna to sway wildly in the wind affecting our VSWR badly. Since we had no external antenna tuner it meant that we were unable to use the HF amplifier for several hours, so we had to resort to using QRP which meant that we could only work Europe on SSB. We were unable to do this for too long and so, our operation was limited to very low QRP and thus only FT8. Our other fear was that the high winds would blow down the coconut tree anchoring our vertical antenna.

The electricity supply was provided by the local electricity generator which runs on kerosene. The Indian Government must spend thousands of dollars per day to provide the kerosene so that the island has electricity. The power regulation was also quite poor, so we were restricted to only 400 watts RF power before the voltage

dropped and the lights would flicker in sympathy with the CW keying. Fortunately, we were the only tenants in the hotel, so this was not too much of a problem. On a positive note, we did not have to contend with local man-made noise problems and the band noise was relatively low.

Then, eight days into the operation, “Cyclone Maha” hit and was targeting Lakshadweep Island. We had early warnings of its approach. Winds were gusting up to 100mph which was quite frightening. Some of the plastic tables and chairs were blown hundreds of meters away from their position. We wanted to erect the “Hexbeam” but, while I was studying the construction details, the papers were blown nearly 200 meters away and I had to run after them before they reached the ocean; the island is only 200 meters wide where we were staying. Eventually we erected the Hexbeam and, in between cyclones, we were able to boost our QSO score a little.

Looking at the logs, we made a total of 1555 QSOs on FT8 and 1842 QSOs on SSB and CW giving a grand total of 3397 QSOS. This does not sound too impressive out of context but the two cyclones and time-sync issues on the laptop did have a huge impact on the total number of QSOs. However, it served as a wonderful experience and a steep learning curve for next time - when we hope to return to the island for a second DXpedition!

In Conclusion

Further drama was to unfold as we made our way home. The weather changed quickly, and we were faced with more heavy wind and rain. We were taken half-way across the runway in order to board the aircraft but, before we were allowed to board, the captain told us that there would be a delay. He explained, he was carefully monitoring the weight and would let us know how this would affect the flight. He decided that there was too much weight so some passengers would not be able to board this plane and would have to wait until the next day. We needed to be on that flight as I had prebooked a connecting flight for my return to London. Fortunately, we were classified as a “research team” and, wearing yellow T-shirts, looked more official than the other holiday passengers, so were allowed to go on that flight, but one of my main bags containing all the radios was taken off the plane because of the weight restrictions. I had to wait till a flight was available from the Island to return this important bag.

All three of us were on that plane on the first leg of our journey home looking forward to reunions with our respective families and a sense of comfort and calmness finally returned.

I believe that we fulfilled our “Mission Statement” which was “to make as many QSOs as possible on all three modes”, at least we did so to the best of our ability in the face of adversity. Through those experiences we have learnt how we should do things very differently and better on our next visit. We will also benefit in future from the useful friendships that we had made there, and these will also help us to achieve our goals in the future.

Once home, all that remained was the task of QSLing to be completed. This aspect is very important to me. I was particularly proud of one photograph that I had taken on the island; it shows a group of local coconut climbers cycling along a road carrying the branches of a tree back to their home. This picture gives a more human perspective to the QSL card. Fred, G3SVK kindly offered to print the labels to stick on the reverse side of the QSL cards which has proven to be a huge labor saver. QSL cards have now been printed and all the direct and OQRS cards have been dispatched. We now just wait for the batches of cards to arrive from the bureau.

VU2OB, VU2AC and VU3MTY

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It now remains for me to express my sincere gratitude to all those kind people and organizations who supported our DXpedition both financially and through the loan of equipment etc. I am indebted to them.

INDEXA, NCDXF, SWODXA, GMDX Group Scotland, Twin City DX Association, OKDX Association, North East Wisconsin DX Association and the many individual sponsors. Also, thanks to Callum's DXCommander and Anthony's G3TXQ Hex Beam for their antennas at a reduced tariff, Angelo, M0OJD for QSL Card design & Printing and to Fred Curtis, G3SVK for the loan of his Expert 1.3 FA HF linear amplifier. Thanks to you all for the QSOs. We hope that we were instrumental in providing some with a new DXCC entity. Namasthe & Happy New Year 2020 to all of you from the Greater London!

THE END

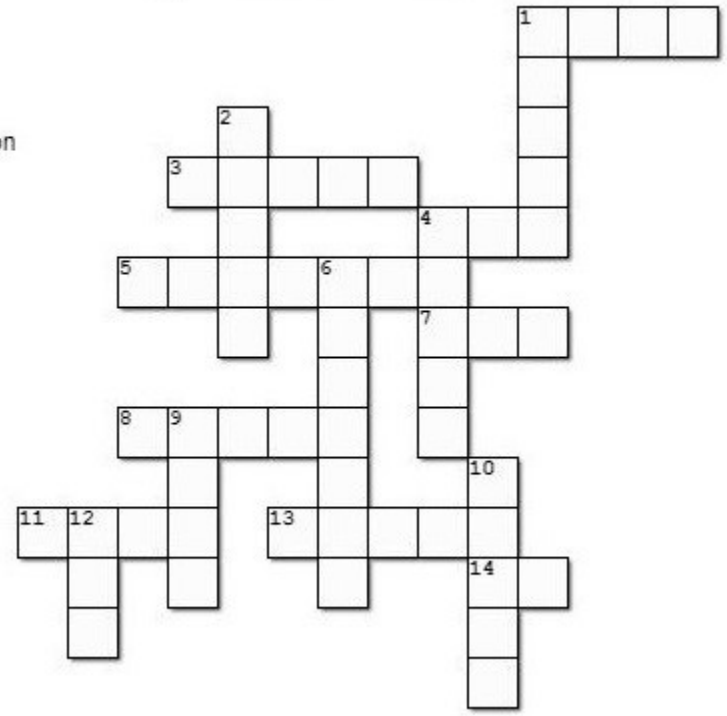
DX Crossword Puzzle

Across

1. 5V
3. A reef surrounding a lagoon
4. Musician / Ham
5. Made the most QSOs on a tent & generator DXpedition
7. Calling out of turn
8. Assists the on-island team with communication
11. Russian Astronaut / Ham
13. _____ Coil
14. VP8 _ _

Down

1. INDEXA was incorporated in 198_
2. Last place on ClubLog's most wanted list
4. DX Ship captain
6. KK95io
9. Lloyd and _____ Colvin
10. Has the most ham radio operators
12. Ham time



Answers on page 15

Crossword Puzzle Answers

Across: 1-Togo, 3-Atoll, 4-Joe, 5-Malpelo, 7-Ild, 8-pilot, 11-uri, 13-Tesla, 14-PJ

Down: 1-three, 2-Italy, 4-Jolly, 6-Eritrea, 9-Iris, 10-Japan, 12-UTC