

Annual Report

2017

Association des Radio Amateurs
Tunisiens, ARAT



1- 2016 Annual Meeting

As every year, ARAT held its 2016 annual meeting on January 22nd 2017 in Hammam Sousse.



Figure 1: ARAT Annual Meeting, 2016

During the meeting, ARAT's President Ashraf Chaabane went through the 2016 Annual Report summarising the activities carried out throughout the year.

Oussema Yacoubi, ARAT's treasurer went through the financial report.



Figure 2: Souvenir photo on the roof of 3V8SS

Following the presentation of the reports, a debate was held on the various proposals and challenges facing the association and the hobby took place between the attendees.

2- Collaboration with the Regulator

New Licensing Arrangements

Amateur radio had been regarded with some suspicion by the previous

Tunisian regime, which only granted permission to a few organisations to open club stations. Individual licences were not generally available. Several attempts to create an amateur radio association failed.

After the Jasmin Revolution in 2011, a group of Tunisian youth created ARAT. The government recognized it as an official association under Tunisian law. Later, other radio associations were created. Following a meeting at the 2014 IARU-R1 Conference, ARAT was accepted as an IARU Member society for Tunisia.

The biggest challenge for ARAT had been to convince the Tunisian authorities to issue amateur radio licenses for individuals, as it is the case in most countries of the world. Although the activity within the clubs was highly profitable, many people wanted to have their own stations.

Since its creation in 2011, ARAT has established good relationships with the National Agency of Frequencies (ANF) and the Ministry of Telecommunications. Several meetings were held to explain the benefits of this hobby.



AGENCE NATIONALE DES
FRÉQUENCES

ARAT suggested a draft decree for a licensing system. This draft was also discussed with ASTRA (another association operating in Tunisia). ARAT also participated in the public survey organized by ANF and cooperated to ensure the least procedural complexity and maximum privileges for the future amateur radio license applicants.

Several government reshuffling took place since 2011 leading ARAT to re-initiate discussions on a number of occasions. The amateur radio dossier

involves 3 ministries, Telecommunications, Defence and Interior. In a country where recent terrorist attacks have occurred, these two latter have the greatest influence on any decision making. IARU supported the ARAT efforts with letters sent to these stakeholders.



Figure 3: Tunisian Minister of TIC, Mr Anouar Maarouf

In September 2017, the Ministry of Telecommunications approved and issued the decree organising the amateur radio activity in Tunisia. The decree has appeared in the Official Gazette of the Tunisian Republic 2017-71 Edition.

It is now possible for Tunisian hams to pass an exam and get their own amateur radio licenses. Tunisian amateurs already having a foreign license (among which 7 ARAT members), can be granted licenses without passing an exam. Resident foreigners can also apply.



Figure 4: ANF General Director, Mr Taoufik Rojbi

ARAT is grateful to Minister Anouar Maarouf, to ANF and the Tunisian authorities and to all those who contributed to this achievement (Hans PB2T, Tim VE6SH, Don G3BJ, Faisal 9K2RR... and many others).

First exam for 3V license held

On December 20th the first 3V ham licence exam took place at The Agence Nationale des Fréquences (ANF). 11 candidates applied, out of which 10 ARAT members.



Figure 5: First Tunisians to pass the License exam

Results were published a week later; 2 candidates successfully passed the exam for the HF License, the others managed to pass the exam for the VHF one.

3- IARU Activities

Youngsters On The Air

Thanks to the financial support of YASME Foundation two ARAT members were able to participate in this year's YOTA event held in the United Kingdom; Ahmad Boubaker 3V/KG5OUE and Majdi Bahrouni.



Figure 6: Meeting Ahmed and Majdi in Tunis Airport on their way to London

Majdi said that "YOTA 2017 UK was great to say the least, full of activities, workshops, tours and fun. It was a busy week in Gilwell Park and elsewhere. 80 members from 20+ countries were present, divided mainly into 3 groups, each with a specific program that is partitioned along 7 days, into morning, afternoon, and evening sessions".



Figure 7: Ahmed and Majdi operating GB17YOTA

Majdi and Ahmed had the chance to pass the OfCom license examination and they ended up by successfully acquiring M6YTN and M6YFN callsigns respectively.



Figure 8: Tunisia booth in YOTA 2017

Majdi added "I came the first day to London knowing no one, feeling frustrated, and in awkward situation. I left London with hesitation wishing it had lasted longer! However, most important, I left with an experience, a great journey, a license, great unforgettable events, and acts, and above all, with friends"



YOTA Month

IARU YOTA Group made December a special month during which youngsters around Region 1 come on the air using their country prefix and the "YOTA" Prefix. The objective is to show the amateur radio hobby to young persons and to encourage youngsters to be active on the ham radio waves.



Figure 9: Demonstrating amateur radio

ARAT participated in this year's YOTA month with a temporary special callsign 3V8YOTA from 3V8CB station in Borj Cedria.

4- Cooperation Agreements

Tunisian Scouts



JOTI JOTA

The 2017 JOTI/JOTA edition was arranged in conjunction with the Tunisian Scouts and the the camping centre of Borj Cedria in the south of capital Tunis.



Figure 10: Jean-Louis F5PUT animating on-the-air workshop

The camping is located in a forest right on the beach side with big mountains in the back. The location is a nice place to be and is very convenient for radio operation given the close distance to sea and plenty of space for installing antennas and playing radio games.

The camping centre also provides facilities for accommodation, lectures, etc.



Figure 11: Hannibal animating electronics workshop

Over 70 participants took part in this year's JOTI/JOTA event. They came from several cities across the country.

Following a request from ARAT, IARU-R1 has kindly sponsored ARDF equipment to ARAT (Thanks to Don G3BJ, Oliver Z33TO and Jiri OK2BWN). We all worked to have the equipment in country before the JOTI JOTA event.



Figure 12: ARDF competitor in action

This year's JOTI JOTA included the first ever ARDF competition in Tunisia. All participants enjoyed the game. We expect it to have a brilliant future locally and attract more people.



Figure 13: Competitors happy finding the "fox"!

Hannibal Hamrouni has animated an electronics workshop on how to build small FM transmitters (See Projects section).



Figure 14: Monta 3V8SA giving lecture

Other workshops took place and were animated by ARAT members Monta 3V8SA, Oussema 3V/KD2LQM, Wael 3V8SA, Ahmed 3V/KG5OUE and

Majdi 3V8CB along with other ARAT members. This includes on the air trainings, JOTI, design and building antennas, Introduction to satellite communications, etc.

The Rovers National Day, ARDF Competition

After the first ARDF competitions during JOTI JOTA, other competitions were held.



Figure 15: Fox hunting

On the 23rd and 24th of December, ARAT arranged in the occasion of the National Rovers Day, an ARDF competition.



Figure 16: Strong signals... reducing gain!

The activities which were not limited to ARDF were very successful attracting youth.

Scouts Attendance

According to Monta 3V8ST, who is also the chief of the scout stations, an estimated number of 300 scouts have attended ARAT activities this year.

Stations Maintenance & Upgrade

3V8SS Station has been upgraded with a new vertical antenna for 80m kindly sponsored by Ludo HB9OUE. The antenna has been installed right before CQ WW SSB and has considerably improved 80m signals compared to the inverted-V.



Figure 17: the new 80m Antenna in 3V8SS

In 3V8CB station, a new inverted-V antenna for 40 and 80 has been installed.



Figure 18: Upgrading 3V8CB

An inverted-L 40m-long antenna was erected in order to participate to CQ WW 160 CW and SSB.

5- On the Air

Multi-Operator Contesting

As every year, ARAT endeavours to arrange for at least one contest to be carried out in multi-operator category. This year entry in CQ WW SSB contest has been in Multi Single Low Power Category with participation of Ashraf 3V/KF5EYY, Ludo HB9EOU, Ahmed 3V/KG5OUE and Oussama 3V/KD2LQM.

Before the contest, the team put up a vertical antenna for 80m and a temporary 5-elements yagi for 15m.

The contest ended up with 2336 Contacts and 3.5 million points placing 3V8SS in the second-place worldwide.

Multi-Single Low

ED9E.....	5,306,587
3V8SS.....	3,576,832
IB9T.....	3,408,867
IQ3RK.....	3,055,064
ZW8T.....	2,550,590

Figure 19: Ranking for MS LP Category

6- Projects

Crystal Receiver

For experimental and educational purposes, Hannibal Hamrouni has developed a crystal AM receiver.

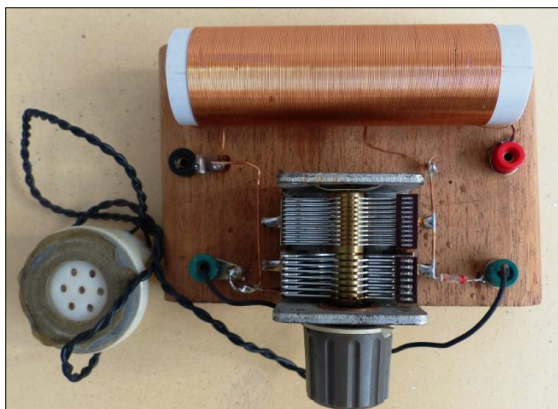


Figure 20: The Crystal Receiver built by Hannibal

The simple receiver - which does not need any external power - is made of coil mounted on a PVC pipe, a capacitor and a crystal detector. Earphones are used to listen to AM stations it receives.

OTRSP SO2R & Antenna Switching System

A new design of KF5EYY SO2R device has been developed thanks to fruitful collaboration between ARAT members. This design is an improvement to KF5EYY SO2R v2.



Figure 21: SO2R and antenna switching device

The audio switching part now includes 1:1 transformers mounted on the PCB. Two new PCBs were added to control a 6x2 Antenna Switching system via OTRSP (Wintest, DXLog or any

logging software that supports this protocol).

The PCBs are designed to be stacked on an Arduino Mega controller.

A 6x2 LCD is used to show the band of each transceiver and the status of the headset (Left and Right ears).

Micro FM Transmitter

The electronics project developed in this year's JOTI/JOTA was a micro FM Transmitter.

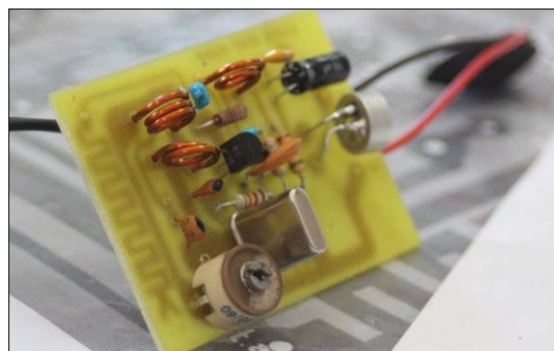


Figure 22: Micro FM Transmitter

The transmitter has 1 milliwatt of power and can reach a signal distance of 200m or 20m within a house.

7- International Activities

Attending IARU-R1 Conference

As a president of ARAT and IARU Liaison Officer, Ashraf Chaabane has attended IARU Region 1 Conference in Munich, Germany.



Figure 23: IARU Conference attendees

He took the opportunity to discuss with IARU board and Member Society representatives, possibilities of enhancing cooperation.

8- Communication

ARAT has focused on its Facebook page (with more than 6400 followers) to publish information on its activities and promote the hobby through announcements, articles, photos, and videos it publishes.

In addition to its Facebook page, ARAT continues to keep its members updated through its website and the newsletter sent monthly and when needed by our Community Manager Majdi Bahrouni 3V/M6YTN.

9- Association Management

ARAT EC keeps using Association Management tools (PHP/MySQL database uploaded to our server) to manage subscribed members, paid/unpaid membership fees, association budget, sending newsletters, etc.

10- Gatherings

On July 23rd, ARAT members joined for an informal meeting in Borj Cedria's club station (3V8CB).



Figure 24: Half-year ARAT meeting

During the gathering, many subjects have been discussed as well as future plans and events, such as YOTA in UK, JOTI/JOTA and the IARU-R1 Conference in Germany.



Figure 25: Lunch after meeting

After the meeting, ARAT members were invited to lunch.

11- Support to Networks

As a contribution to vessels monitoring network and a way of observance of VHF propagation, ARAT has maintained a vessels tracker in the north of Tunisia which provides a good coverage. More receivers are planned to be installed soon across the region.



“3V/KF5EYY Reverse Beacon node”, has been active for three years now. It is the only node feeding the system with spots from North Africa.



Figure 26: 3V/KF5EYY RBN spots

Our RBN in Tunisia provides more coverage to the system and renders the RBN-based propagation studies outcome more accurate.

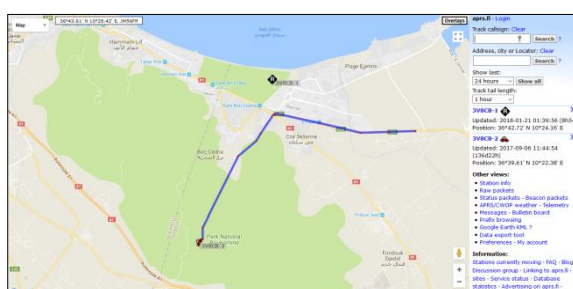


Figure 27: APRS Tracking

In August 27th 2017, the first permanent APRS IGate has been installed.

12- Media

In July's issue of the German magazine CQ DL, an interesting article, written by Henryk Kotowski SM0JHF about the Tunisian Radio Amateur world has been released. It highlights the situation before the revolution and after it, the association's activity from the day it was founded



Figure 28: CQ DL Article