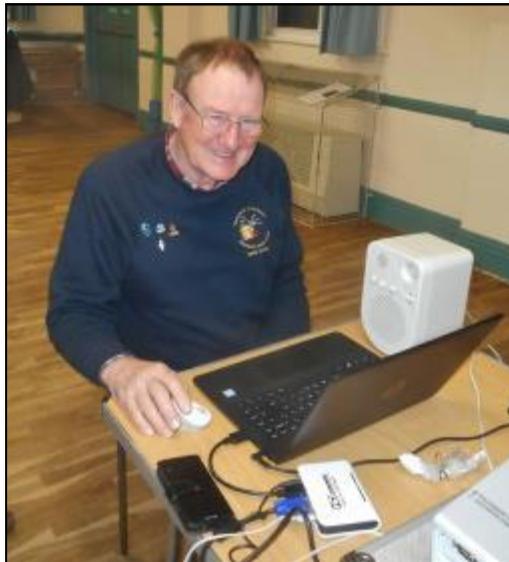


# Horndean & District Amateur Radio Club Journal

Volume 4

Number 6

*April / May 2019*



**Russ G4SAQ with his presentation**

Hordean & District Amateur Radio Club  
Founded in 1975

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Articles, letters of interest, photographs are always needed and should be sent to the Editor :- Mike Clark. [m0zdz.mike@gmail.com](mailto:m0zdz.mike@gmail.com)

I use Microsoft Publisher to produce the journal so am happy to accept articles/photographs via email. A Word document or Picture attachment. Just use Journal article or Journal picture as the subject matter.

Opinions expressed in the journal are not necessarily those of the HDARC. The editor has the right to reproduce the articles for our affiliated club journals/newsletters. The Editor decision is always final.

**Closing date for next journal is : 3rd May 2019**

## Editorial



Hi All,

It's been another hectic couple of months for me, sadly not on the radio front. Only managed 1 outing portable and I may as have stayed indoors as conditions were very poor on the 20m and the weather was not much better. I hope you have had more success.

As always I am looking for more articles for the journal, this can be on anything that has even the slightest connection with the hobby. Doesn't have to be *war & peace*, it can be a short article and a few pictures always help. Don't worry if you haven't done one before, give it a go.

Conditions should improve through March and into April, fingers crossed, the CQ World Wide WPX SSB contest is on over the weekend of the 30th/31st March so there should be plenty of activity on the bands that weekend. Have a listen, you may find some rare DX along with plenty of North American stations to work. You can find all the information at [www.cqwp.com](http://www.cqwp.com) .

Till the next time, good DX

73 de,

Mike. M0ZDZ / G7Y  
Journal Editor HDARC

# Sailing across the Atlantic in a small boat

A club presentation by Russ Tribe G4SAQ

At the club meeting on February 15th 2019, Russ Tribe G4SAQ, assisted by XYL Helen G4SAP, son Howard, and two grandchildren Ella and Lincoln, gave an excellent Powerpoint presentation on the voyage he took in 2004-5. I thank Russ for providing the slides for me, plus I did make some notes.



Russ started by telling us that his father introduced him to sailing when he was very young by way of dinghy sailing. The Atlantic adventure lasted 341 days, from August 1st 2004 to July 11th 2005, and covered 11, 668.1 nautical miles. The sailing yacht named Io, is a Westerly Marine Oceanlord built in Waterlooville in 1988. Overall length 12.34m (40' 6"), beam 4.11m (13' 6"), draft 1.68m (5' 6"), displacement 9,470kg, engine: Volvo Penta 40HP diesel, 8 berths. Russ showed a diagram of the yacht layout, and gave us a visual tour of the various areas.

Sailing from the South coast of England, their route would take them to Northern Spain, then via various coast stops in Spain and Portugal to Gibraltar. From there they would go to Ceuta (the North African Spanish enclave) and onto the Canary Islands, then across the North Atlantic to the Caribbean.

The crew consisted of Russ, XYL Helen, son Howard and a friend John. They had decided to take part in the ARC (Atlantic Rally for Cruisers), with the route from Las Palmas, Gran Canaria to Rodney Bay, St Lucia (approx. 3,000 miles).

Before starting the crossing, some essential maintenance was carried out, and taking on provisions, carrying out a vital food preparation step of fresh food to eradicate any risk of cockroaches, something definitely not wanted on board. A reverse osmosis device is used to generate on-board water.

Whilst in the Canary Islands, the crew let their hair down at a few parties with other rally crews, including one party with the crew wearing some very convincing and fiercesome-looking pirate costumes. Nice ear-ring Russ, hi!

There was a procession in Gran Canaria, with all the teams parading their national flags. Altogether there were 190 yachts in all classes, and the start was on Saturday November 20th 2004. A cruiser handicapping system ensured a stepped start for the yachts. With not much to do once underway on the crossing, it was time for relaxation, fishing and book-reading (when not on-watch). One crew member was alert at all times, usually in 3 hour watches, except for the dogwatch which was split into two sessions of 0100-0230 and 0230-0400.

Although usually a 'dry' yacht, they did crack open a bottle of bubbly for a 'half-way over' party.



Russ then mentioned 'The amazing 'Mr. Monitor'. This is a device attached to the back of the yacht, and enables auto-steering based on a wind vane principle. Russ ran a short video showing the device operating. Very clever it is too.





St Lucia harbour was reached on Sunday December 12th 2004, after first rounding Pigeon Island, and the crew put on their 'team' red shirts for landfall. Below is the official 'crossing the line' photo.





The 'flag lady' who greeted the teams on arrival in St Lucia with flags of the nations taking part

Statistics for the ocean crossing:  
 2,925nm by log, 20 days, 22 hours,  
 average speed 5.8 knts.  
 Total engine hours: 9.5, best 24 hour run  
 164.4nm  
 36th place on handicap (out of 151  
 cruisers).

There were more parties on St Lucia,  
 including the ubiquitous Caribbean Steel  
 Band, and also Fire-Eaters and Limbo-  
 dancing. John flew home from St Lucia.

After St Lucia, they sailed South to  
 Trinidad, then island-hopped Northwards  
 calling at many of the islands on the way  
 until they reached Antigua. Unfortunately,  
 due to a family illness, Helen had to fly  
 back to the UK from Antigua, leaving just  
 Russ and Howard on board. They sailed to  
 Bermuda, where John re-joined them, and  
 the three of them sailed back to the UK,  
 stopping off in the Azores on the way.



*Diplom zum Jubiläum*  
 "100 Jahre Erstflug Junkers F13" am 25. Juni 1919






Prof. Hugo Junkers  
1858-1935



Chefkonstrukteur  
Ottó Rouler  
1894-1922

Die F13 war das erste Ganzmetall-Kabinen-Flugzeug für 2 Piloten und 4 Passagiere  
 Motor: Junkers L-2/200PS, Gesamtgewicht: 1859Kg bei max 700Kg Zuladung  
 Gipfelhöhe: 4000m, Höchstgeschwindigkeit: 170Km/h, Reisegeschwindigkeit: 140Km/h,  
 Landegeschwindigkeit: 95Km/h

Das Diplom ist ein Dokument  
 der DLRG e.V. und ist  
 ein Nachweis für die  
 Teilnahme an der  
 "100 Jahre F13"  
 und ist ein Dokument  
 der DLRG e.V. und ist  
 ein Nachweis für die  
 Teilnahme an der  
 "100 Jahre F13"  
 und ist ein Dokument  
 der DLRG e.V. und ist  
 ein Nachweis für die  
 Teilnahme an der  
 "100 Jahre F13"



Die Ortsverbände des DLRG e.V. W18, W22, Y43 und die Flieger-Funk-Runde e.V. verleihen dieses Diplom für getätigte Funkverbindungen mit den DF13... Sonderrufzeichen und der erreichten Punktzahl 100 an:

Diplomnummer: 117  
 Awardmanager: DL1RUV *Klein*  
 Datum: 28. Januar 2019

GOPYX  
 STUART SWAIN



# The story behind the callsigns (DF13...)

by Stuart GØFYX

Special event stations DF13BLN, DF13BUD, DF13DEJU, DF13MUC, DF13PAR and DF13STO are on the air between January 1<sup>st</sup> and June 30<sup>th</sup> 2019, so you still have plenty of time to go for the award, and the stations are active. Keep an eye on the DX Clusters (if you need any help with the cluster, please ask me. They are so useful).

**Award 100 years Junkers F13** The first all-metal passenger aircraft.

On the occasion of the 100th anniversary of the maiden flight of the Junkers F13, the DARC e. V. local associations S44 Mittweida, W18 Dessau, W22 ZAB Dessau and Y43 Elbe-Elster, together with the Flieger-Funk-Runde e. V. (FFR), will issue the following award.

After the First World War, engineers and technicians led by Hugo Junkers and Otto Reuter began to design and build an innovative passenger aircraft. The aircraft was developed exclusively for civilian use. The first flight took place on 25.06.1919, some record flights followed. There are still 5 original planes known, which can be seen in different museums in Europe.

The diploma can be acquired by all licensed radio amateurs and SWL's. 100 points are required to apply for the diploma. Each station can be evaluated once per band and operating mode (Phone, CW, Digital). Contacts between 01.01.2019 and 30.06.2019 with the following stations count:

DF13DEJU – 10 points - special station, symbolizes the aircraft factory in Dessau  
DF13BUD – 10 points – special station, symbolizing the F13 in Budapest  
DF13PAR – 10 points – special station, symbolizing the F13 in Paris  
DF13STO – 10 points – special station, symbolizing the F13 in Stockholm  
DF13MUC – 10 points – special station, symbolizes the F13 in Munich  
DF13BLN – 10 points – special station, symbolizes the F13 in Berlin

Radio contacts with the special stations on board an aircraft (/am) count 20 points per band and operating mode independently of the other contacts.

The award is free of charge. It can only be applied for online on the website [www.juf13.de](http://www.juf13.de) .

The dispatch takes place by e-mail as PDF file.  
The latest date for receipt of applications is 30.06.2020.

Award Manager is Karsten, DL1RUN.



## A history of the F13.

The four-seat passenger cabin was equipped with wicker chairs, hot air and interior lighting. The two pilots sat in the first versions in an open cabin. The F 13 was also suitable for water and snow slopes. If necessary, the rigid chassis could be replaced with a float frame or snow skids.

The F 13 contributed significantly to the development of aviation in the 1920's. Many less developed and sparsely populated countries without a developed transport network put on the plane for the passenger, freight and postal traffic in the 20's and 30's. From 1919 to 1932, a total of about 330 copies of the F 13 were built in 60 different versions and sold in 30 countries. They are in service until well into the thirties as passenger and cargo aircraft.

The F 13 was a very advanced aircraft when built, an aerodynamically clean all-metal low-wing cantilever (without external bracing) monoplane. Even later in the 1920s, it and other Junkers types were unusual as unbraced monoplanes in a biplane age, with only Fokker's designs of comparable modernity. It was the world's first all-metal passenger aircraft and Junkers' first commercial aircraft.

The designation letter F stood for *Flugzeug*, aircraft; it was the first Junkers aeroplane to use this system. Earlier Junkers notation labelled it J13. Russian-built aircraft used the designation Ju13. Like all Junkers duralumin-structured designs, from the 1918 J7 to the 1932 Ju46, (some 35 models), it used an aluminium alloy (duralumin) structure entirely covered with Junkers' characteristic corrugated and stressed duralumin skin. Internally, the wing was built up on nine circular cross-section duralumin spars with transverse bracing. All control surfaces were horn balanced. Behind the single engine was a semi-enclosed cockpit for the crew, roofed but without side glazing. There was an enclosed and heated cabin for four passengers with windows and doors in the fuselage sides. Passenger seats were fitted with seat belts, unusual for the time. The F13 used a fixed conventional split landing gear with a rear skid, though some variants landed on floats or on skis.

The F13 first flew on 25 June 1919, powered by a 127 kW (170 hp) Mercedes D IIIa inline upright water-cooled engine. The first production machines had a wing of greater span and area and had the more powerful 140 kW (185 hp) BMW IIIa upright inline water-cooled motor. Many variants were built using Mercedes, BMW, Junkers, and Armstrong Siddeley Puma liquid-cooled inline engines, and Gnome-Rhône Jupiter and Pratt & Whitney Hornet air-cooled radial engines. The variants were mostly distinguished by a two letter code, the first letter signifying the airframe and the second the engine. Junkers L5-engined variants all had the second letter -e, so type -fe was the long fuselage -f airframe with a L5 engine.



**Aircraft on display** - Reserve collection Musée de l'Air et de l'Espace, Le Bourget, Paris, France  
Deutsches Museum Munich, Germany  
Transport Museum of Budapest, Hungary  
SE-AAC, ex-D-343, Tekniska museet, Stockholm, Sweden



F 13 remains from Canada in the Deutsches Technikmuseum Berlin  
**In storage or under restoration:** Deutsches Technikmuseum Berlin, Germany

### **General characteristics**

Crew: two

Capacity: four passengers or 689 kg (1,519 lb) payload

Length: 9.59 m (31 ft 6 in) ; F 13fe: 10.50 m (34 ft)

Wingspan: 14.8 m (48 ft 7 in) ; F 13fe: 17.75 m (58 ft)

Height: 3.50 m (11 ft 6 in) ; F 13fe: 3.60 m (12 ft)

Wing area: 34.50 m<sup>2</sup> (371.4 sq ft) ; F 13fe: 44 m<sup>2</sup> (474 sq ft)

Empty weight: 951 kg (2,097 lb) ; F 13fe: 1,480 kg (3,263 lb)

Max takeoff weight: 1,640 kg (3,616 lb) ; F 13fe: 2,318 kg (5,110 lb)

Powerplant: 1 x Mercedes D.IIIa 6-cyl.water-cooled in-line piston engine, 118 kW (158 hp) ; F 13fe: 1 x 228 kW (306 hp) Junkers L5 6-cyl. water-cooled in-line piston engine

Performance: Max speed: 173 km/h (107 mph) ; F 13fe: 198 km/h (123 mph)

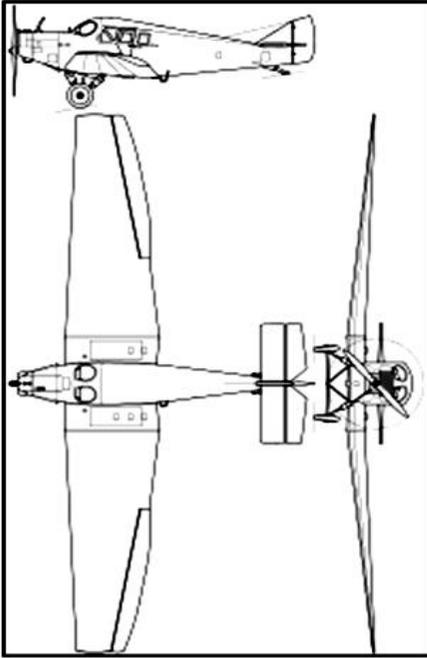
Cruise speed: 160 km/h (99 mph) ; F 13fe: 170 km/h (106 mph)

Range: 1,400 km (870 mi; 756 nmi)

Service ceiling: 5,000 m (16,000 ft) ; F 13fe: 5,090 m (16,699 ft)

Rate of climb: 2.40 m/s (472 ft/min) ; Power/mass: 0.0712 kW/kg (0.0443 hp/lb)





Junkers set up its own airline – Junkers Luftverkehr AG in 1921 – to encourage the acquisition of the F13 by German airlines, which was flying 60 of them by 1923. They also established a branch of this airline in Iran. Other marketing techniques were used, providing F13's on cheap leases and free loans, with such effect that some 16 operators across Europe were flying them. When Junkers Luftverkehr merged into Luft Hansa in 1926, 9.5 million miles had been flown by them. Luft Hansa itself bought 55 aircraft and in 1928 were using them on 43 domestic routes. Even in 1937, their F13's were flying over 50 flights per week on four routes. They were finally withdrawn in 1938. Most of the F13's produced before completion of the marque in 1932 were built at Junkers German base at Dessau. During the difficult 1921–3 period production was transferred to Junkers plants at Danzig and Reval. In 1922–3, Hugo Junkers signed a contract with the Soviet

Union to produce the aircraft in a Soviet factory at Fili near Moscow which became known as "Plant no. 22". Some of these aircraft served Soviet airlines and some the Red Army. There were some other military users. The Colombian Air Force used the F13 (and the related W.33, W.34 and K.43) as bombers in the Colombia–Peru War in 1932–3. The Republic of China flew F13's converted into scout bombers until the January 28 Incident in 1932, when they were destroyed by the Japanese along with the Shanghai Aircraft Factory. The Turkish Flying Forces flew a few.

A feature that made the F13 popular internationally was the ease with which its landing gear could be converted to floats. During the formative years of commercial aviation, bodies of water such as rivers, lakes, seas and oceans were more abundant than landing strips and civil airports in many parts of the world, so seaplanes were commonplace and even, in some places, more useful than regular aircraft.

A German-Swiss project to build a reconstruction of the F13 was launched in 2009; the aircraft first lifted off in September 2016. The reconstruction is equipped with radio and a transponder, and uses a 1930's Pratt & Whitney R-985 Wasp Junior motor, but is otherwise as close as possible to the original. Additional reconstructions are to be sold for \$2.5 million apiece.



## Background to the Licence Syllabus 2019 update RSGB

Consultations about the update to the syllabus took place during Spring 2017 and the new syllabus was published in August 2018. Here we recap the reasons for updating it, as well as summarising the main changes.

Since 2016, the RSGB has undertaken the examination of candidates to the standard required by Ofcom for the award of an amateur radio transmitting licence at three levels. The examinations process is reviewed annually by the Examinations Standards Committee, which is attended by an Ofcom representative. In the light of the exam and progression statistics, Ofcom requested changes to the Intermediate level to smooth the transition from Foundation to Intermediate and then on to Full. It is perceived that the Intermediate level is not challenging enough for the privileges afforded at this level, as illustrated by a pass rate of 85%. This results in a large step up in required knowledge and understanding to progress to the Full level which is driven by International requirements (HAREC).

In devising Syllabus 2019, our aims were to:

- Refocus the three levels to smooth the transition from one level to the next

- Introduce some more modern technical topics resulting from 10+ years development in radio technology

- Remove some older topics; and to take account of changes in licence conditions and accepted operating practice

We should achieve these aims without increasing the level of difficulty of the (entry) Foundation level and maintain alignment between the Full level and HAREC so that UK amateurs could continue to benefit from reciprocal licensing. After these changes, the level of difficulty of Foundation as measured by the ratio of the number of points which must be 'understood' to the number of points to be 'recalled' is unchanged between the old and new syllabus. Furthermore, the ratio of operating points to technical points is also unchanged at 52:48.

The Intermediate level now has an increased focus on practical operating skills and construction. It is more difficult as some technical concepts have been moved down from Full, but it now sits more comfortably between Foundation and Full and, in the view of Ofcom, justifies the increased licence privileges obtained.

The Full level makes more use of concept demonstrations instead of just theory and the mathematical requirements are simplified. It remains broadly aligned with HAREC.



## The Mike Matthews CW Award



Club chairman Ken GØJWL (L),  
presenting John MØHTE with the trophy

At the club meeting on February 15th, John MØHTE (on the right in the photo) was presented with the Mike Matthews Award by Chairman Ken GØJWL. Many of you might be unfamiliar with this HDARC award, so **reproduced below are the rules for the award**. Please note that the award will now be presented annually, rather than 6-monthly. To tie in with the AGM date (October) the **current session will run February 1st to September 30th 2019**. Thereafter it will run October 1st to September 30th the following year. Please send your entries to Stuart GØFYX, the club's acting awards manager, contact details on club committee page. Good Luck.

1. Only fully paid-up members of the Horndean & District ARC (HDARC) are eligible to submit an application for this award.
- 2, The award is available to be won **annually**; the qualifying period in which contacts are to be made, is October 1st to September 30th the following year.
3. Applications should be sent by October 5th to the club award manager. There is no charge for the award.
4. A log extract showing the date, time, station contacted, reports sent and received, is all that is required. All contacts must have been made using hand-generated CW. No QSL cards needed.
5. Fifty (50) different stations must have been contacted, of which at least 5 must be HDARC members at the time of the contact.
6. In the event of more than one application being received that meets the above criteria, a tie situation will be resolved by the award manager or an officer of the club. This will take into consideration firstly, the greatest number of club members contacted, secondly the greatest number of different bands used, and thirdly by any other means at the discretion of the award manager or an officer of the club.
7. The winner will be able to keep the award, until such time as it is awarded to another person. No person can submit an application for the award in two consecutive time periods. The award remains ultimately the property of HDARC. A commemorative certificate will also be issued.
8. Contacting the club station G4FBS or its variants (e.g. GX4FBS/P), or any special event station organised and run by HDARC, will count for two member contacts.





Neville Horne, Bob Dick and Ian Smith



## EXAMINATIONS 2018

Following on from the previous journal Dec/Jan, I can now let the membership know how the examinations for the Intermediate candidates went on Friday November 16th 2018 together with the Intermediate + Advanced (Full) licence exams in January.

The assessors and training team are pleased to announce that all three Intermediate candidates, Ian Smith, Neville Horne and Bob Dick all passed and have now obtained their 2E0 calls. A photo taken on the exam date is included with this article.

On Friday 18th January 2019 the club held examinations for those candidates who couldn't attend in December. On the Intermediate exam were Alan Waller and Jon Platt both of whom passed, and now have their 2E0 calls. The two external candidates who sat their Advanced (Full) examination also passed with high marks according to their official paperwork from the RSGB. Wah Wan was on the Bath distance learning course with Steve Hartley and the other candidate Michael Hepworth had been studying with the Worthing club. Both candidates have received their M0 calls.

Sadly no photos were taken after the exam time had passed because those who sat the higher level had to leave the building as it was getting late and the invigilators were busy marking the Intermediate exam paper results from the optical mark sheets, so that the candidates could be given their indicative result before they left.

The assessors and training team congratulate all those that passed and wish the Intermediate candidates luck in the study of the Advanced (Full) course being offered by the Bath Group under the distant learning until further notice, and any help from the Worthing Club and HDARC.

Julia G0IU  
Hon. Exam Sec HDARC



## HDARC COURSES 2019

The HDARC recently started a new Foundation Course with a total of 8 candidates, whose age ranges are from 10-80 years. All current candidates are at different learning stages, so the plan is to get them all on a level par by the time they do revision and practical elements. Examinations cannot be taken on Foundation and Intermediate levels until all practical elements have been completed and signed off by a registered assessor involved in the training.

The assessors are aiming to book the examination date around April, but it all depends on how the candidates feel nearer the time. It is hoped that all 8 are ready and confident to sit the examination. At the moment all have requested a continuation on to the next level (Intermediate) following a happy result from the Foundation exam.

With the changes to the RSGB Syllabus on all levels which takes place from July 2019, it's imperative that candidates have sufficient time in which to feel confident enough to sit this exam. There are a lot more practical tasks to get through in this level also. The RSGB are however, allowing a three month transition period for candidates studying the current syllabus to sit examinations. If they were unlucky enough to fail, there should still be time to re-book an alternative date before the deadline.

Once the club has completed the next Intermediate course there will be a short break to allow time for the new course syllabus to be upgraded into the PowerPoint presentations etc. Some pieces of test equipment will have to be sourced ready for use in both Foundation and Intermediate levels. However this is an on-going project as time permits.

As the Examination Secretary for the HDARC I am still receiving enquiries from potential candidates wanting to take up the hobby and currently being added to a waiting list. If there is anyone you know that would like to participate and be included please contact me (Julia GIUY) with their details.



## ADVANCED ( FULL)

With regards to the Advanced (Full) License, the HDARC has mentors who are willing to help any level candidate. Our club Chairman/Training Manager is currently mentoring an external candidate. It is hoped that an examination date can be booked in the near future. Some of our candidates who passed the Intermediate exam prior have been lucky enough to register and join, the last for now, Bath session, but have been seeking additional help from our mentors on club nights as they require it. As soon as the existing candidate has completed his study and sat Exam, the Training manager/assessors will be taking on a new course from scratch for any candidate wanting to achieve the Advanced (Full) licence.

For more information or inclusion on a course please contact me via [juliatrube@ntlworld.com](mailto:juliatrube@ntlworld.com)

Thank you

Julia G0IU Y (Hon. Exam Sec)

HDARC.

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THE Q CODE WAS USED BY COMMERCIAL STATIONS/VESSELS.  
IN THE RN WE USED Z CODES.  
I HAVE A LIST OF Q CODES THAT I USED WHEN WORKING FRIENDS

EG

QLF? RU USING LEFT FOOT

QBF RU FLYING IN CLOUD

QTW WHAT IS CONDX OF SURVIVORS

QUM MAY I RESUME NORMAL WORKING

QFH U MAY DESCEND BELOW CLOUD

QNX MAY I LEAVE NET

ZUG NEGATIVE

ZUE AFFERMATIVE

ZUF AIR RAID 1 WARNING, 2 IN PROGRESS, 3 ALL CLEAR.

BEST OF ALL ZBM2 PLACE A COMPETENT OPERATOR ON THE  
FREQUENCY!!!

73 de G3LIK Mick



## **A quick guide to receiving the new Es'Hail2 satellite amateur radio transponder 'QO-100'**

**By Russ, G4SAQ**

On 14<sup>th</sup> February, 2019 the new amateur radio satellite transponder, now designated 'Qatar Oscar 100', was formally inaugurated by His Excellency Abdullah bin Hamad Al Attiyah, A71AU, the chairman of the Qatar Amateur Radio Society.

The primary purpose of the host satellite is commercial: to provide broadcast TV and communication services to the middle east and north Africa. However, the Qataris have generously extended their satellite's capability by providing the international amateur radio community with our first transponder in a geostationary orbit. The footprint is huge, extending from eastern Brazil to western Thailand and the north of Antarctica to the north of Scandinavia. The amateur facilities include a narrow band transponder for SSB/CW/digital modes etc (250kHz bandwidth) and a wide band transponder for digital amateur television (8MHz bandwidth). It is very easy to set up a receiving station for the narrow band transponder; well within the capabilities of anyone with an amateur licence.

The downlink from the NB transponder (i.e. the signal you wish to receive) is from 10,489,550 MHz to 10,489,800 MHz. Reception is achieved with 5 items:

A satellite dish, preferably wider than 60 cms. (NOT a 'Sky' dish with the 'chopped off' top and bottom – you need a proper oval)

A Low Noise Block Converter ('LNB'). This is the object that sits at the end of the arm on the satellite dish. The LNB should be a type with a PLL system (phase locked loop) as other types drift too much. Seek advice before buying if you are unsure.

A means of sending 12 volts up the coax to the LNB. This device is known as a 'Bias-T' and is very easily and cheaply constructed.

An SDR radio, such as an RTL USB dongle will do fine.

A computer running the SDR software – try the free SDR# program.

**That's it!**

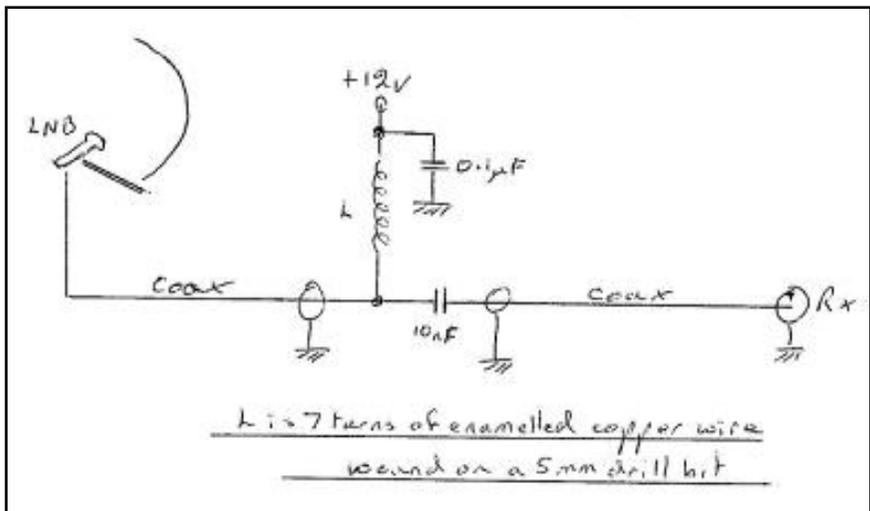


The LNB has a local oscillator running at 9,750 MHz so that will mix with the incoming 10GHz signals to achieve reception of the NB transponder from 739.55 MHz to 739.8 MHz. This is well within the range of the simple RTL USB dongle.

Aligning your dish is probably the trickiest part. Start by pointing at the ASTRA 2E satellite (source of SKY and FREESAT signals). Then tweak you dish ever so slightly to the right (as viewed from behind). Use the excellent website <https://www.dishpointer.com/> to assist you.

It may be that Es'Hail 2 is not yet listed so search for BADR-4 which is in the same spot (26 degrees east). You will find that the signals drift in frequency for the first 30 mins after the LNB has been powered up but you can easily follow them by tuning. After 30 mins or so the drift has almost stopped. The LNB can be modified to accept a stable local oscillator input but that is outside the scope of this article.

A great source for advice on choosing and operating an RTL USB dongle is <https://www.rtl-sdr.com/> Happy listening!



## ***Horndean & District A.R.C Information.***



**Club Call signs**    ***G4FBS (Held by MØKTT); G6RST (Held by G4WQZ)***

**Club Website**        **<http://www.hdarc.co.uk>**  
*(Maintained by Neil 2EØLNx)*

**Club Groups.io site**    *Administrator is Stuart GØFYX*

**Club Facebook Page**    **<https://www.facebook.com/hdarc1975/>**

**Club Meetings**        *Held at Deverell Hall, 84 London Rd, Purbrook,  
Waterlooville, Hants. PO7 5JU, on the 1st and  
3rd Friday of each month. Commencing at 1900.*

**Club Nets**                ***All times are local and frequencies plus/minus QRM.***  
**Sunday**                    *0900 CW until about 0930 then SSB on 1950 kHz.  
Net controller:- Stuart GØFYX*

*2000 FM 433.450 MHz  
Net controller:- John G4WQZ*

**Monday**                    *1930 SSB 1950kHz  
Net controller:- Stuart GØFYX*

**Wednesday**              *1930 FM 145.375 MHz  
Net controller:- John G4WQZ*

### **Club Membership**

***Joining fee £2 . Annual fee £26. Those aged 10-18 pay half this rate, and under 10's have free junior membership. For Europe and rest of the World fees please contact the Membership Secretary. All annual fees payable on November 1st. If fees not paid by the following January 31st, membership is ended.***

### **Club Awards**

Full details from Stuart GØFYX (details on committee page).

## News of club members

Congratulations to John MØHTE who won the latest session of the Mike Matthews CW Award. Please note that this will now become an annual award, presented at the AGM in October. For 2019 only, the qualifying period for contacts will be February 1st to September 30th 2019.

Well done to Russ G4SAQ who has made contact with the new amateur radio satellite Es'Hail 2/QO100. satellite. The new, commercial broadcast geostationary satellite carries two amateur radio transponders, one for SSB/CW etc and the other for amateur TV. For those who are interested but lack equipment, a web SDR is available, courtesy of the British Amateur TV Club: <https://eshail.batc.org.uk/nb/> .

## Diary

Friday April 5th Club night

Friday April 12th Skittles evening at The Crofton, from 1830 hrs

**\*\*THERE IS NO CLUB MEETING ON APRIL 19th (GOOD FRIDAY)\*\***

Instead we will be meeting on....

Friday April 26th 'The history of the Royal Naval Amateur Radio Society' (RNARS) by our club president, and former RNARS Chairman, Doug Hotchkiss G4BEQ.

Friday May 3rd Club night

Friday May 17th Club night

## This 'n' that

The RSGB series of club championship contests continues. April dates are CW on the 1st, SSB on the 10th, and Data on the 25th. May dates are SSB on the 13th, Data on the 22nd and CW on the 30th. As usual the full rules etc are at

<https://www.rsgbcc.org/hf/rules/2019/r80mcc.shtml>

We will be running special event stations during the summer and offer you an opportunity to get involved. Information will be given in the weekly emails, so please take note of the info and let our Station Manager Chris MØKTT know if you can help at all.



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