

Inside this issue:

HF Happenings 2-3

Out of Africa 4

The World at Their Fingertips 5-9

Notices 10

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Newsletter

132

July 2017

Reflections:

Never yet in all my years as a radio ham have I ever experienced such quiet bands. I don't mean free of noise, I mean free of operators.

I have been through a few periods of low sunspot cycles, maybe not as bad as this one, but I have never not heard anyone operating on frequency.

The only activity, very low activity, that I hear is on the AWA Saturday morning net. With about 5 or 6 at most calling in on 40m.

On a Saturday afternoon, Barrie ZS6AJY and myself can still work each other on CW. When things are really rough, we simply go to 80m and gave 599 QSO's.

The thing that amazes me is that it is still possible to operate, even with these poor conditions. But it seems that people have just given up, saying they will wait for the bands to im-

prove.

Radios now become ornaments on display in unused shacks. What a pity.

We need to be making more scheduled times and get out there more often and be "Radio Active".

You do realise of course these fine old boat anchors that many of use were not made to be ornaments. When you leave them to stand, the valves become gassy, lose their ability to heat up properly and become unusable. Of course you all know that's complete nonsense but its worth a try.

But things like relays get corroded and don't operate properly when you do start them up again, and that's true.

Its an absolute injustice to leave them standing too long.

I can just hear some of the

comments that will come about as a result of this piece.

Come on people, lets get back on the air, even if it is only once a week for the AWA net. Poor old president Jacques is getting quite exasperated thinking up subjects for discussion points and having no one to participate in the nets. (Sorry Jacques), I'm trying all the tricks in the book here to try and get more participation.

We will either remember this as one of the most difficult times we have had for communication, or we won't remember it because we just gave up on trying.

See you all on frequency soon.

Best 73

DE Andy ZS6ADY

WIKIPEDIA

Electrical Telegraph

Soon after the first successful telegraph systems were operational, the possibility of transmitting messages across the sea by way of submarine communications cables was first mooted. One of the primary technical challenges was to sufficiently insulate the submarine cable to prevent the current from leaking out into the water. In 1842, a Scottish surgeon William Montgomerie introduced gutta-percha, the adhesive juice of the *Palaquium gutta* tree, to Europe. Michael Faraday and Wheatstone soon discovered the merits of gutta-percha as an insulator, and in 1845, the latter suggested that it should be employed to cover the wire which was proposed to be laid from Dover to Calais. It was tried on a wire laid across the Rhine between Deutz and Cologne. In 1849, C.V. Walker, electrician to the South Eastern Railway, submerged a two-mile wire coated with gutta-percha off the coast from Folkestone, which was tested successfully.

John Watkins Brett, an engineer from Bristol, sought and obtained permission from Louis-Philippe in 1847 to establish telegraphic communication between France and England. The first undersea cable was laid in 1850, connecting the two countries and was followed by connections to Ireland and the Low Countries.

HF HAPPENINGS:

DXCC News

The ARRL Awards Branch has approved the recent E31A operation, Eritrea, May 2017 for DXCC credit.

3Y0Z Bouvet DXpedition (Press Release 6, dated 27 June)

In consultation with our new transportation partner Aerovias DAP, we continue to refine our plans for our Bouvet DXpedition. We expect to depart from King George Island, in the South Shetlands Islands on 13 January 2018. Our transit time to Bouvet will be between 9 and 11 days depending on weather and the sea state.

Upon arrival at Bouvet we will conduct reconnaissance flights to the island and select a campsite free of crevasses. As weather permits we will begin building our radio city on the ice and secure our infrastructure. Then antennas will go up, our equipment will be assembled and we will begin non-stop operations. We are planning to be at Bouvet for 21 days, and depending on weather and other factors we hope to be on the air for 14 to 16 days. Then we will return to either King George Island or Punta Arenas, Chile. All in all, we will be away from civilization for 6 to 7 weeks.

Final preparations continue this summer, and we still have a lot to do:

- * Equipment will be tested under simulated harsh conditions at the QTH of K9CT.
- * Antennas will be assembled, tested and packed for transit at the QTH of WB9Z.
- * The Sea Container will be packed and shipped from Atlanta the first week of October.

A team meeting will be held in Atlanta between 7 and 10 September. Topics to be discussed will include – Safety, Helicopter operations, Site selection, Shelter erection and quick deploy plans, Weather, Escape plans and rescue, Medical considerations, EME set-up and testing, Familiarization and operation of Flex Radios and Amplifiers, Propagation and our strategy, Operator scheduling and.... more.

Our fund-raising continues. We are pleased with our progress toward our goal of 740 500 USDs. The team has committed 400 000 USDs cash as well as paying for their own transportation, food and hotel expenses.

DX Clubs have stepped up and some have added additional contributions as have many individual DXers. However, we are still about 200 000 USDs short. Please help if you can. We have a large payment due for the vessel and helicopters in several months.

Please check our website www.bouvetdx.org at periodically for updates and additions as we progress toward departure. You can also join our Facebook group www.facebook.com/groups/639362206232014.

For the 3Y0Z team, Ralph, K0IR, Bob, K4UEE, and Erling, LA6VM

July

18 to 22 - Vryfees Arts Festival, Bloemfontein
22 - CTARC 71st AGM
23 - ZS2 Sprint
24 - All schools open
25 - Closing date August Radio ZS
29 and 30 - RSGB IOTA Contest

August

1 - Tish'a B'Av
5 to 12 - IARU Region 1 YOTA Summer Camp, Gilwell Park, UK
6 - SARL HF Phone Contest
9 - National Women's Day; SARL YL Sprint
11 to 13 - Klein Karoo Klassique, Oudsthoorn
19 and 20 - International Lighthouse and Lightship Weekend
20 - SARL HF Digital Contest
24 - Closing date for September Radio ZS
25 and 26 - Hantam Vleisfees, Calvinia
27 - SARL HF CW Contest
31 Aug to 3 Sept - Gariep Kunstfees, Kimberley

ILLW registrations roll in

The 20th year of the International Lighthouse and Lightship Weekend will be in August and so far, it has 240 registrations with organisers ready for many more in the coming weeks. In the lead for the premier fun-event is Germany on 48, followed by Australia 35, the USA 30, then comes England, The Netherlands, Scotland, South Africa and Sweden.

A new country is Serbia, where Alex, YU1CA, is at the Tamis River West Lighthouse overlooking the Danube River.

The Norwegian Radio Relay League club social weekend has the Lista Lighthouse LI5TA activation, while for Finland's centenary of independence there's OH1AM at the Kylmapihlaja Lighthouse.

Other registrations come from Argentina, Austria, Belgium, Brazil, Canada, Chile, Cyprus, Denmark, France, Gibraltar, Ireland, Italy, Malaysia, Mexico, New Zealand, Northern Ireland, Panama, Poland, Portugal, Puerto Rico, Switzerland and Wales.

Simple guidelines apply to the portable use of Amateur Radio from and immediately nearby historic lighthouses and lightships. For all registrations on the International Lighthouse and Lightship Weekend 19 and 20 August, along with past reports and general information, visit with website www.illw.net

NCDXF Newsletter

The Northern California DX Foundation's Spring 2017 Newsletter is now available at www.ncdxf.org/pages/newsletter.html. It contains articles on S9BT and S9WL (Sao Tome 2016), XX9D (Macau 2017), H44GC and H40GC (Solomon Islands and Temotu 2016).

Logs and QSLs recovered

7Q7BP, 7Q7FOC, C91MR, C93MR, C96MR, C97MR, 5X1P, 9Q5MRC, 9U5MRC, G3MRC, VK8CP and Z38/G3MRC. QSL Manager Phil Whitchurch, G3SWH, reports the following [edited], "Joe, G3MRC, became a Silent Key (SK) in early May 2017 and I am pleased

to announce that I have obtained from Joe's widow copies of the logs and a quantity of blank cards for each of the above call signs. The logs had all been previously uploaded to LoTW by Joe, but have now also been uploaded to www.g3swh.org.uk, where there are log search facilities for each call.

Joe's RSGB membership lapsed at the time of his passing. Therefore, I am unable to process or respond to any bureau QSL requests what-so-ever as the RSGB QSL Bureau will not forward outgoing cards for non-members. Consequently, paper QSLs for this station are *ONLY* available DIRECT with adequate return or via the OQRS facility at www.g3swh.org.uk. There is further information on my web site.

Operating Tip

Logging ALL the Contact Information - It is good practice to log all pertinent information with your contacts, and ensure that information is also included when uploading to LOTW. Many HF operators collect counties, while VHF/UHF operators are interested in grid squares. When uploading logged contacts to LOTW, please make sure that this information is included with each contact, or make sure that your LOTW information includes your grid and county and that it's accurate for each contact. If you've already uploaded contacts to LOTW with incorrect information, you can correct it and upload those contacts again. See this document on fixing logs uploaded to LOTW <https://www.arrl.org/files/file/LoTW%20Instructions/Fixing%20Your%20Log.pdf>.

ZL1SIX Ocean Floater

The ZL1SIX Ocean Floater battery is flat and has now gone QRT after 407 days of operation - but what a fascinating project! <http://mail01.tinyletterapp.com/ke9v/calling-cq-issue-95/8867349-www.qsl.net/zl1rs/ocean-floater.html?c=525cc316-4c9f-4513-8bcb-ec9a8d443069>

African DX

Botswana, A2. Look for a Russian team to be active from Kasane (the northern part of Botswana) between 15 and 25 September. Operators mentioned are Yuri, RM0F (A25BI), Pavel, R2AD (A25SP) and YL Elena, RC5A (A25BE). Activity will be on 160 to 6 metres using CW and SSB. QSL via ClubLog's OQRS or via their home callsigns, direct and by the Bureau. Call signs A25BI and A25BE will both use LoTW.

African Islands

IOTA frequencies

CW: 28 040 24 920 21 040 18 098 14 040 10 114 7 030 3 530 kHz

SSB: 28 560 28 460 24 950 21 260 18 128 14 260 7 055 3 760 kHz

Using a Drone to inspect your antennas

Flying a drone to inspect your tower and antennas could eliminate the need for a climb. For non-commercial uses, a drone operator generally does not need to be licensed, but using a drone for the business of tower inspections does require operator licensing. Here's an article that details what one person did to become licensed as a commercial drone operator and how they're using a drone for commercial broadcast tower inspections. www.radioworld.com/tech-and-gear/0003/drones-can-be-useful-in-inspecting-towers-and-antennas/339869

Word to The Wise

Non-ionizing Radiation - Electromagnetic radiation that does not have sufficient energy to displace electrons from their atoms. Radio Frequency (RF) radiation is non-ionizing.

2017 Contest University

Presentations and videos from the 2017 Contest University, held in Dayton, Ohio, are now available <https://www.contestuniversity.com/files/> and <https://www.contestuniversity.com/videos/>

Bouvet Island 2018

The presentation entitled "Bouvet Island 2018" given by Nodir, EY8MM, at the 2017 Topband Dinner is available on the Topband Dinner website <https://www.topbanddinner.com/presentations/>.

EX AFRICA SEMPER ALIQUID NOVI*

Wireless experiments were conducted in Port Elizabeth in the 1890's.

During the 1890's a Port Elizabeth youth, Alfred Jennings, was the inventor of a system of wireless telegraphy. He developed his wireless system concurrently with Marconi, but quite on his own! Around 1896 he actually used a type of "coherer" R his own invention and in 1899 he actually sent wireless messages ship to land over 12.5km. Truly a South African achievement.

In about 1912 S.J. Latsky of Stellenbosch experimented with coherers and crystal detectors. He was an early sw wireless pioneer in the Karoo at Struvenburg.

1914 saw Dr. H.J. van der Bijl propound his famous Equation for triode tubes. $S_x D_x R_i = 1$. It still holds true today. Then in 1918 he built his famous tube, the 'Peanut Valve'. This was the first miniature tube invented and predated the American 870 range of tubes by 23 years. He also made the well known R101 tube. This South African worked in the USA and later became the Scientific Adviser to the Union of South Africa. He was the founder of Iscor and Escom and the City of Vanderbijlpark is named after him.

In the 1920's Klipheuwel Radio saw the Marconi beam system introduced for a SW radio-telephone service between the Union of SA and the UK.



Peanut Valve Receiver



JS Streeter ZS4A

Between 1924 and 1926 J.S. Streeter, ZS4A, worked all the continents on his reactive OV1 wireless set using bright emitter valves. He was the first SA wireless operator to contact the Argentine in 1925 and to establish two way SW contact between all five continents and South Africa.

Then between 1927 and 1949 H.J. (Henry) Rieder was experimenting With Television at his home in Green Point, Cape Town, and in 1949 he received BBC TV pictures from Alexandra palace In London.

In the late 1940's, early 1950's Dr. Wadley invented the famous Radar Distance Measuring Instrument, the Tellurometer, which had an accuracy of about 2" per 100 miles! This caused a revolution world wide in Land Surveying and was a first for SA research and technology!

At about this time Dr. Wadley also invented the PLL system of radio reception (Phase-locked Loop) and this resulted in the production in SA of the famous portable receiver, the Barlow-Wadley radio and the Racal (Wadley) communications receiver and world-wide patent rights.

*There is always something new out of Africa!

Capt. L.G. Latsky Latsky; Radio Museum; Van Rhynsdorp



Barlow Wadeley XCR-30 receiver.

The following article was sent to me by Richard F4WCD (ZS6TF) and was published originally in 1966. George Jillings was of course Richards Father in Law and Richard still has some of the original equipment displayed in this article.

THE WORLD AT THEIR FINGERTIPS

Story by Peggy Jennings

ALTHOUGH MOST PEOPLE realize that radio "hams" are scattered throughout the country few are aware that they alone have put Zambia into the space race. They are, in fact, probably beaming messages off a satellite 20,000 miles above the earth at this very moment.

Amateur radio operators are, by nature, a technically-minded, quiet lot who prefer to work, preferably alone, in their little back rooms, with masses of wires, knobs, tape-recorders and paperwork.

But the ham is also likely to be an animated man discussing with someone in, say Juneau, Alaska, the hazards of trekking through the bush as opposed to snow-shoeing across vast icefields. The peculiar characteristic of most amateur operators is that they are usually considered socially untalkative, yet when they get "on the air" they become founts of flowing chatter. They even win certificates from the "Rag Chewers' Club" whose requirement is to have talked non-stop to another ham for at least 30 minutes.

When not talking to someone on the other side of the world most are usually working on their equipment to make it that little bit stronger than it was the day before — or, as in the case of George Jillings in Kitwe, putting Zambia on the map as one of the first African countries to use space communication.

Mr. Jillings, an electrical engineer, has spent the best part of his evenings over the last three months building his own powerful equipment and aerial which beams off satellite Oscar IV (Orbiting satellite carrying amateur radio). This is the exciting amateur radio satellite launched last December from a Titan III rocket and will probably circle the earth for the next 1,500 years. It was designed and built solely by amateur radio



George Jillings, a Kitwe engineer who has put Zambia into the space era adjusts his home-built satellite-tracking aerial. Below, he rotates the aerial by pushing a button inside his home.

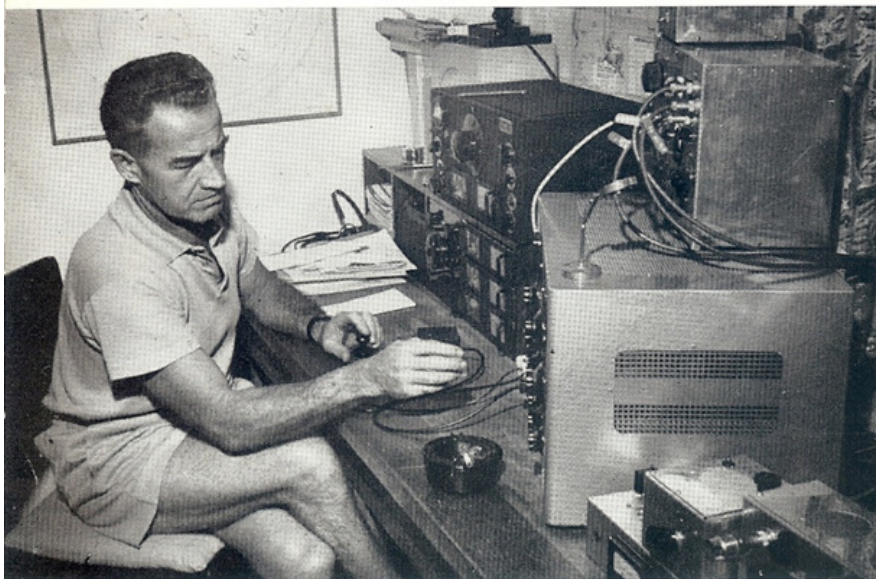
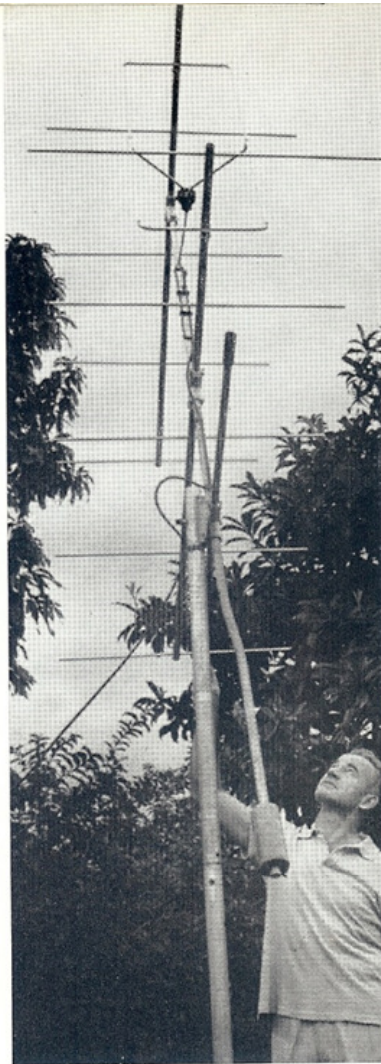
operators in the United States.

A number of inter-continental contacts have already been made through the satellite and the planned series of launchings will provide permanent means of long-distance communication, independent of weather conditions.

With the use of a highly directional rotating aerial such as Mr. Jillings has built, the operators simply beam their aerials onto the orbiting satellite, which receives their signals on the 144 megacycle band and retransmits them on a 431 megacycle band. The average non-space age amateur operates on a 3.6 to 29.7 megacycle band. The satellite transmits in Morse and voice. Ham radio operators are even ready to talk with Martians should their existence ever be proved: the International Telecommunication Union in Geneva has allotted a special outer-space metre band for working with beings from other planets.

More than ever before the slogan of "hams" is true — "get your licence and the world is yours." This is not confined merely to talking over the radio either. Hams around the world are a closely-knit group of friends who know neither race nor creed barriers.

"Being a ham we can go anywhere in the world," says Ralph Barlow of Mufulira, "and know that we will be met on arrival and be swept up into the most hospitable world imaginable. It is never like meeting a stranger because most of us have shared joys and sorrows with one another over the years



Below: Neighbours are not necessary for an evening of interesting conversation. Bill Fry, prison superintendent near Fort Jameson, tells an American "ham friend" how tobacco is grown in Zambia.

and finally meeting face to face is just sealing the friendship. We are always on first-name terms whether the man be in Burma or Brazil. It is one brotherhood and one language." English is the most widely used language, or Morse. "One evening I chatted with a Saudi Arabian prince who was sitting in his palace."

"Even Morse becomes very personal," says George Jillings. "We get to recognize the touch of certain operators after a while and know who it is before we even hear his personal prefix."

When an operator begins operating and looking for a contact he must first give his callsign which includes the country prefix (set by the International Telecommunica-



tions Union in Geneva) and then his personal suffix. Mr. Barlow, for instance, would begin his messages with CQ DX from 9J2RB, meaning "this is Ralph Barlow in Zambia calling and I would like a contact".

Any operator in the world hearing 9J2 would know from the international call book that Zambia was on the air. And because there are so few operators in Zambia, only about 43 active, other world hams are keen to accept the call. If they wish they will exchange QSL (confirmation) cards. These QSL cards are printed by the individual amateur giving date, time and signal strength of the contact they made. These are usually filed away until there are enough to enter the many competitions. Between 500 and 600

While his young son, Jonathan, listens for a voice from India, Peter Golledge, chairman of the Zambia Amateur Radio Society, sends out a signal from his Kitwe home for a new friend who will also be "on the air".

are sent out of Zambia each month.

Most hams enter various world-wide competitions and those in Zambia have fared extremely well. Most of the active operators have DXCC or Century Club certificates, which means they have "worked into" at least 100 different countries and had them confirmed by QSL cards. Mr. Barlow also has his "WAZ" (Worked All Zones) certificates.

Bill Fry, prison superintendent at Fort Jameson, has been a ham since 1934 when he swapped his canoe for a tiny two-valve radio set. He built his own sets from then on and now has the most up-to-date equipment possible. "The Radio Amateur's handbook will teach a beginner everything he needs to know," says Mr. Fry. "I just read magazines and experimented and once the bug gets you you are hooked." This is how most of the amateurs here in Zambia began and most were drafted into the Signal Corps during the Second World War.

Mr. Fry has "worked" 135 countries since coming to Zambia 16 months ago. He has just completed the World-Wide Contacts contest which he thinks he has won for Zambia and he hopes for Africa. He contacted by speech 640 stations in 113 countries in the allotted 48 hours. The results will not be out for nearly a year since there are about 20,000 to 30,000 entries from around the world.

Another of his valued certificates is one from Russia for having contacted the most Russian stations during a contest. "Amateur radio is taken very seriously in Russia. They won't give names and addresses as our countries do but it is estimated they have about 150,000 hams. There are 270,000 in the United States where it is really done on a big scale," he explained.

Along with his many certificates is a column from a mid-western American newspaper. One evening he happened to pick up an avid ham who was not only the local news columnist but the sheriff as well. "You don't need to travel around the world to meet people," he says. "You can meet them by radio. We get to know much more about them in a few minutes than we would if we met them face on for a couple of hours."

Most governments recognize the potential of amateur radio operators. This was appreciated during the last war and now Zambia is no exception. An emergency network, set up some years ago to handle internal messages, has now been officially organized with the International Red Cross. At a time of distress Zambian Red Cross traffic could be passed on the emergency channel directly to Geneva. Zambia, the first nation to agree to this

proposal, plans a trial run shortly. Based at Kitwe, it would include hams from the Copperbelt, Kasama, Fort Jameson, Broken Hill, Lusaka and Ikkelenge, on the Congo border. At times of natural disaster amateur radio saves many lives. In the United States, where snow storms, hurricanes and floods sometimes cut off communications for days, all relief work and evacuation is done by organized amateur radio.

Peter Golledge, of Kitwe, chairman of the Zambian Amateur Radio Society is re-organizing the network for this emergency system. He, along with the society's treasurer, George Ripley of Kitwe, and Mufulira's Ralph Barlow, and many others played major roles when this country had to cope with the

The big complaint of most amateur operators is the requests from passers-by who see aerials in the garden and come in to ask if they can contact a friend in some foreign country. Under international law they are forbidden to transmit any message on behalf of a third party. All messages must be in plain language between two operators and limited to a technical nature relating to tests or personal chatter.

An operator could lose his licence if he contacted someone in England and asked him to slip next door and get Joe Dokes to come and talk to his mother out in Zambia. This is allowed in America and is legal as long as the two countries involved agree to it. This is the practice in Vietnam, for instance, and



influx of refugees from the Congo.

"It is illegal to pass on messages except of an emergency nature in Zambia and most Commonwealth countries," says Mr. Golledge, "but in America they allow third party messages and it isn't always a disaster. One I remember is the time a ham's wife went to visit her neighbour. It was mid-winter and a snow storm blew up. When she returned home she found she couldn't make her husband hear her shouts to open the door since he had his earphones on. She returned to her neighbour who was also a ham operator. He contacted a ham in South Africa who in turn contacted her husband back in the States and told him to unlock the door and let his wife in. He did."

hams in Zambia often pick up conversations between an American soldier in Vietnam and his relations at home.

It is requested by the International Telecommunications Union, to which all countries belong, that hams do not discuss politics, religion, business or advertising, although this is left to the regulations of individual countries.

Conversations can be great fun as well as instructive. Ralph Barlow often tapes his conversations and exchanges tapes with contacts from other countries. "We sing traditional songs of our country and perhaps tell how we spend a Saturday evening; what is a braai; our hobbies; traditions; families, and so on," says Barlow.

Right: A certificate awarded to Peter Golledge confirming that he had won, for Zambia, a contest in which he would have contacted by morse nearly 500 hams in about 90 countries. 9J2W, meaning Peter Golledge of Zambia, is typical of the confirmation cards sent out by individual radio operators.

His wife, Carol, is an avid listener (there are "listener" clubs around the world) and exchanges hobbies with the wives of operators in different parts of the world.

"I collect stamps and spoons," she says, "so we barter. In turn I send something of this country, usually copper. We even exchange gifts with some of our old friends whom we have never met." The Barlows went to South America two years ago and visited many of their long-time friends with whom they have talked over the 18 years Mr. Barlow has been an operator. "It was like meeting members of the family."

Mrs. Barlow, unlike most "ham wives", thoroughly enjoys her husband's hobby but since it is essentially a solitary one most wives object to the hours their husbands spend "in the little back room."

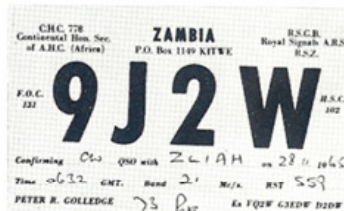
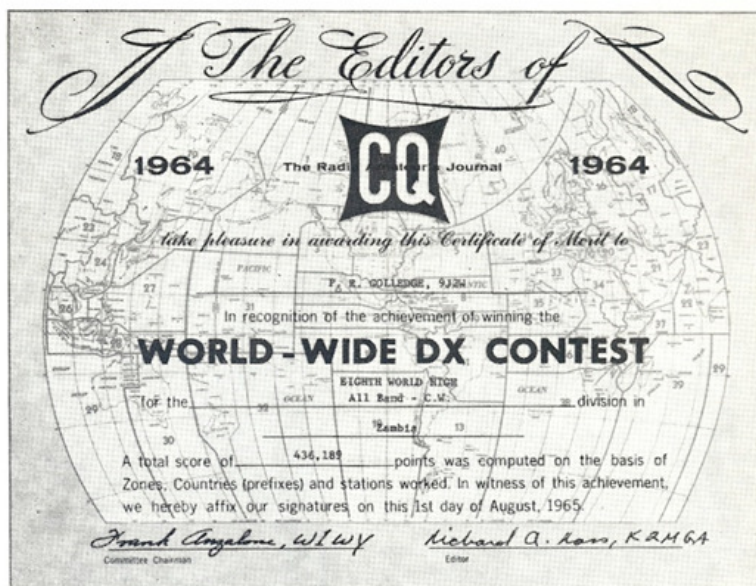
Mr. A. W. Burgoyne, senior Government tele-communications operator (radio) who, under the Postmaster General, is responsible for ham operating in Zambia is a radio amateur himself. "One makes wonderful friends over the years," he explains, "and this is one of the great rewards for the hard work most of us put into it. Captain Carlson of the *Flying Enterprise* was known to many of us long before that famous ordeal. It was through his own portable amateur radio, which he always had with him, that he was able to stay on board after the ship's equipment failed. The ships alongside kept in contact with him so they could tell him when to get off.

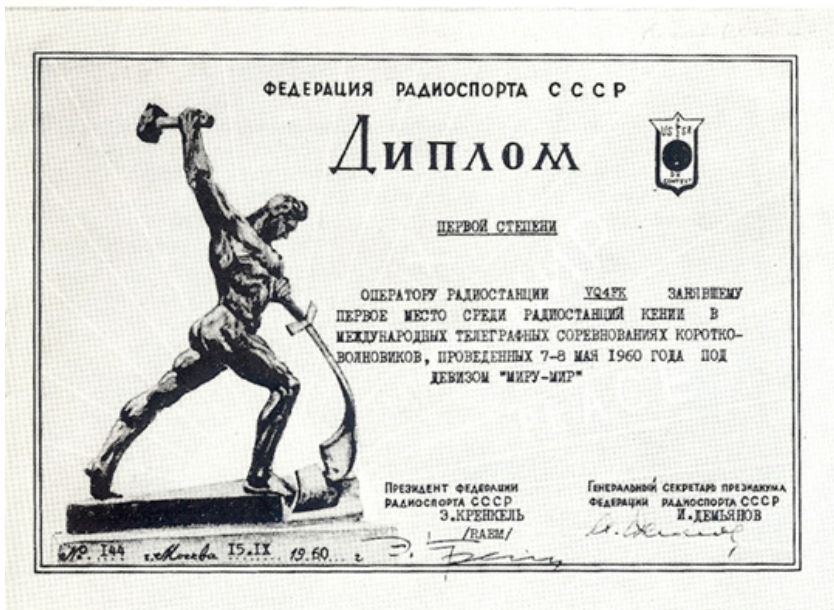
"At this very moment operators around the world are trying to pick up a signal in the South Pacific. A well-known ham sailing to Pago Pago has been missing since the big hurricane. We fear he is lost but we are all hoping a faint signal will suddenly come out."

A friend of many of the operators in Zambia is Cliff Corne, a young American polio victim who operates from an iron lung. George Ripley's son, Steve, exchanges stamps with him. Cliff Corne's father looks after his correspondence and local amateurs keep his equipment in order.

Amateur radio is the life-saving drug of many throughout the world. There is a "Bedfast Club" in Britain, South Africa and many other countries. "Hams are all in contact with one another," says Mufulira's Barlow. "Some are in wheelchairs, others blind and we see that they are taken out for drives. Often they take a portable ham radio with them on these outings."

Portable ham radios are becoming more and more popular. "They are great fun for





Left: A Russian certificate won by Bill Fry, for having contacted the most Russian "hams" within the contest time. Russia encourages her radio amateurs but does not allow them to reveal their names or location.

travellers," says Mr. Barlow. "It is not unusual to be driving along when someone picks up your signal and tells you to turn left at the next road sign as you are just in time for tea."

Officially the Postmaster General, through Mr. Burgoyne, issues licences and sees that operators comply with Zambian as well as international regulations.

The Radio Society of Zambia has asked the Postmaster General to introduce a novice licence. "This is to encourage youngsters to take an interest," explains Mr. Burgoyne. "It would require only five words of Morse per minute as opposed to 12 receiving and transmitting in the normal class. Also it would require less knowledge of the electrical side and a cheap low-power transmitter. Once the interest has been captured it would encourage youngsters to go for the higher standard."

Most countries realize ham operators are a pool of trained experts for possible emergencies.

Most people have the impression that equipment is costly yet it is possible to build a one-to-two valve set with receiver and transmitter for £10 to £15 — "depending on how much you can scrounge," adds Mr. Golledge. "The more you know the cheaper the costs." His set, which he largely assembled himself, cost about £150 including the Morse key, microphone, transmitter, receiver and various other parts. But you can pay up to £1,000.

Like Mr. Jillings most hams have built their own equipment and aerials. Zambian law puts a 100 watt limit on transmitters, quite adequate for world-wide communication.

Many amateurs are now either building or buying a rotary beam which allows them to steer their signals in the desired direction. Those who track satellites also must have the rotary aerial.

Ralph Barlow probably best sums up that excitement which generates as the ham sits down before his set and switches on: "It is an everyday experience to talk to any part of the world, to a prince or an Antarctic explorer. Our kicks come when we pick up a faint signal from a rare and distant country. We really go for the signal and when he accepts ours it is a great accomplishment." As he says, it is an everyday event to hear: "CQ 9J2RB from HZ9HA, 73's for 1966," or in non-ham language — "I am trying to contact Ralph Barlow in Zambia. This is Haji Ali from Saudi Arabia sending you best wishes for the new year." As they say, the world is theirs.



Mrs. Ralph Barlow of Mufulira is one of the few wives of amateur radio enthusiasts who thoroughly enjoys her husband's hobby. As well as sitting in on his international conversations, Mrs. Barlow exchanges spoons with the wives of their unseen friends. The Barlows often tape conversations to another operator on how clearly his voice came in from, say, the South Seas.

CONTACT US:

P.O. Box 12320
Benoryn
1504

Mobile: 082 448 4368
Email: andy6ady@vodamail.co.za

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**Antique Wireless Association
of Southern Africa**

Mission Statement

Our aim is to facilitate, generate and maintain an interest in the location, acquisition, repair and use of yester-days radio's and associated equipment. To encourage all like minded amateurs to do the same thus ensuring the maintenance and preservation of our amateur heritage.

Membership of this group is free and by association. Join by logging in to our website: www.awasa.org.za

Notices:**Net Times and Frequencies (SAST):**

Saturday 06:00 (04:00 UTC) —AM Net—3620

Saturday 07:00 (05:00 UTC) —Western Cape SSB Net— 3630

Saturday 07:30 (05:00 UTC) —KZN SSB Net—3615

Saturday 08:30 (06:30 UTC)— National SSB Net— 7140; (Echolink, connect to Sandton repeater ZS6STN-R)

Experimental relay on 3620 for those having difficulty with local skip conditions.

Saturday 14:00 (12:00 UTC)— CW Net—7020; (3550 after 15 min if band conditions not good on 40)

Wednesday 19:00 (17:00 UTC) — AM Net—3620, band conditions permitting.