

**Q S X**  
**P E**

*Port Elizabeth Branch of the  
South African Radio League*

**P.O.Box 462, Port Elizabeth. 6000.**



National Call	145.5 Mhz
P.E. Repeater	145.05/65
Grahamstown	145.15/75
Lady's Slipper	145.10/70

**ZS2PE**

**Bulletin: Sunday 08h40**  
**HF: 40m — 7098 KHz**  
**VHF: FM-145,700 MHz**

MARCH 1985

## Port Elizabeth Branch

### < NOTICE OF MONTHLY MEETING >

MEMBERS ARE REMINDED THAT THE MONTHLY GENERAL MEETING OF THE PORT ELIZABETH BRANCH OF THE SOUTH AFRICAN RADIO LEAGUE, WILL BE HELD AT THE SCOUT HALL, VAN PLETTENBERG STREET, WILSONS PARK ON FRIDAY 15th MARCH, 1985 AT 8 P.M.

AMONG THE ITEMS FOR DISCUSSION ARE THE MEETINGS TO BE PRESENTED AT THE ANNUAL GENERAL MEETING OF THE LEAGUE TO BE HELD IN PRETORIA DURING THE EASTER WEEKEND. REMEMBER THAT THE BRANCH AND THE LEAGUE AND HOW YOU VOTE COULD MAKE ALL THE DIFFERENCE. THE EMBASSY DELEGATE MUST HAVE A CLEAR MANDATE FROM THE BRANCH HOW TO VOTE IN PRETORIA. PLEASE READ THROUGH THE MOTIONS AT HOME AND DECIDE HOW YOU WOULD WISH THE BRANCH TO VOTE AND THIS WILL SAVE MUCH TIME AT THE MEETING. THANKS. HOPE TO SEE YOU ALL THERE.

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## Committee

CHAIRMAN:	Brian ZS2AB (303498)	VICE CHAIRMAN:	Dick ZS2RS (322111)
SECRETARY:	Marge ZS2OB (303498)	TREASURER:	Pete ZS2PJ (301493)
AWARDS:	Gordon ZS2GK(306776)	MEMBER:	Trevor ZS2AE(321746)
EDITORS QSX-PE		ZS2OB and ZS2AB.	



## bulletin roster

17th March	Dick ZS2RS
24th March	Marge ZS2OB
31st March	Pete ZS2PJ
7th April	Easter Sunday
14th March	Trevor ZS2AE

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## for sale

HEATHKIT DX 60 AM/CW transmitter all bands in nice condition. With separate VFO and spare tubes - 6146 final. R50. Ideal for beginner or cw man.  
SWR meter made in Japan. R12.50.  
Please contact Dudley Forsyth ZS2AW, 10 Cromwell Street, Inxhurst w.

QSL stickers, log books and Great Circle maps obtainable from the Treasurer, Pete ZS2PJ. Phone number 301493 or at the meeting.

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People are a menace with their transistor radios. Wherever you go, out in the country, on the beach, radios blaring away. It's really terrible. I can hardly hear myself playing my barpipes.



# THIS and THAT

Although this may seem a little early, by the time the next QSX PE goes to press, Easter will have come and gone, so The Committee and Editors would like to take this opportunity to wish all members a very happy Easter and to our Jewish members and friends we would like to wish a very happy Passover.

## CONGRATS

Heartiest congratulations to Norman ZS2RI and Cheryl Perelson on the birth of their daughter. May she bring you both many hours of love and happiness and not too many sleepless nights!

Also congrats to Lynn Crothall ex ZR2FE who has now acquired the call of ZS2MM and hopefully will put Port Elizabeth on the map on the CW DX bands. The 200 contacts pass much more quickly than one thinks, but hopefully the CW bug will bite.

## THANKS

are belatedly passed on by Langley ZS2LW to Paul ZS2PR for the use of the 2m antenna, and the slowmotion drive, with apologies for forgetting your name out of the previous list, Paul.

BEST WISHES TO Buck ZS2RM who will be undergoing an eye operation on 19th/20th March. We hope all goes well and that you will soon be having a great look at life.

## Forthcoming Events

The Branch plans to hold some DF Hunts in the near future. To the uninitiated, this is trying to find a hidden transmitter with a 160 meter receiver, loop antenna, map and compass. The Branch owns several DF sets and we intend to build up as many more as are needed to accommodate those who wish to take part. The map required is the street map of Port Elizabeth, preferably mounted on a board, a compass and a protractor (360degree). This is a fun outing for all the family and we generally end up at a venue for tea afterwards. Those who are interested, please let any of the Committee know as soon as possible.

To celebrate the 60th Anniversary of the League, it was suggested that perhaps we could have a social get-together one evening and go out for a meal. Several venues are being approached for a meal at a reasonable price (around R20 per couple) and further details will be made known as soon as possible. Once again, if you might be interested, let the Committee know.

### WISE WORDS - HINTS FOR CONSTRUCTORS.

Clear silicon sealer can be used to anchor small components to a board and thereby reduce the effects of vibration. Keep it clear of solder joints as the material is acidic until it is cured and solder joints will surely fall apart if it comes in contact with them.

Bruce ZS5XT.



MINUTES OF THE GENERAL MEETING OF THE PORT ELIZABETH BRANCH OF THE SOUTH AFRICAN RADIO LEAGUE HELD AT THE SCOUT HALL, KABEGA PARK ON FRIDAY 15th FEBRUARY, 1985.

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PRESENT: 21 members and visitors.

APOLOGIES: ZS2RT, ZS2RS, ZR2FE, ZS2RB, ZS2VM, Mike McCormack.

The Chairman welcomed all to the meeting and said that he hoped they would enjoy themselves in spite of the heat.

MINUTES: The Minutes of the General meeting held 18th January, 1984 having been published and circulated in QSX-PE were taken as read, proposed by Gus ZS2MC and seconded by Bill ZS2BY.

ARISING: 1. The subject of the QSL competition was raised and a suggestion from Clive ZS2RT was made via Brian that a coloured photograph of a well-known place in Port Elizabeth be used. Fred ZS2JS said that the Publicity Association might be prepared to provide colour pictures at a slightly reduced price. Mitch said that he had some printed for John on Tristan da Cunha recently. The Secretary said that coloured cards were available from SATOUR for R15 for 1000 which was considered a good price.

2. The Chairman reported that 12 questionnaires had been sent to members of the Branch, 10% of the membership as requested by Council with regard to the Band Plan, but as yet only five had been returned. Any outstanding should be sent to Headquarters as soon as possible.

3. Cockscomb Repeater. The Chairman said that the pilot of the helicopter was in Cape Town and he was still waiting to hear from the SAR about their schedule. It had been planned to use the big helicopter when it came to this area for the routine trip to Bird Island. It was hoped that we could get our repeater up early in March.

4. The program for the Power supply for use with the ZX81 computer was mentioned and it was hoped that Bill ZS2BY and Pete ZS2PJ could make arrangements for the printing thereof so it could be used in QSX-PE.

CORRES: A sample of the logo to be used for the 60th Anniversary of the S.A.R.L. was shown.  
Several applications for Branch membership.  
Application for Branch Award.  
Several newsletters from other Branches.

At this stage, the Chairman asked Gordon Knapp ZS2GK to step forward and he was promoted to Awards Manager and presented with the Awards and record book.

FINANCE: Pete ZS2PJ reported that there was nothing outstanding to report, but five new members had been welcomed to the Branch.

GENERAL: 1. The Chairman said that it was customary to appoint a delegate to the League AGM in order that travel arrangements could be made. Brian ZS2AB was nominated as delegate, proposed by Lionel ZS2DD and seconded by Pete ZS2PJ.

2. Lionel asked whether the Branch was still in possession of the beacon and he offered to get it operational and on the air. His offer was gladly accepted. It was thought that the transmitter still worked but that there was no

power supply. It was felt that the keyer built by Bert ZS2EA should be rebuilt using a diode matrix or a PROM. The licence had been paid for years and it was be a good idea to actually get the beacon operative.

3. The Branch had received a report from the PEM Waterworks that the hut containing the Ladies Slipper Repeater was damaged and a trip might be needed to fix it up. If this was so, then the battery and charger could be replaced. As soon as details were obtained, there would be a report back.

4. Brian mentioned that he had recently had a qso with KA3EVD who had been the speaker at the last meeting. They were 130 miles northwest of Cape Town having left on the previous Saturday, and they passed 73's to all.

There being no further business, the meeting was closed and tea was taken. Joan Knapp was thanked for the eats. Thereafter, Trevor ZS2AE gave a demonstration of how the new Cockscomb repeater had been built up and showed all the workings.

sgd:  
B.A. Weller ZS2AB  
Chairman

sgd:  
M.T. Weller ZS2OB  
Secretary

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BEEN BUGGED LATELY? Then read on.....

Microwaves and submillimetre waves affect many creatures in ill-understood ways. Some moths, for example, are attracted to sub-millimetre lasers. They detect them with their antennae, as the effect seems strongest for wavelengths that match the size of the antennae. The insect presumably experiences the signal as a "smell" and tries to find its source.

So Daedalus is inventing precision insect-control. Insect antennae vary wildly; a submillimetre source tuned to resonate with the antennae of one specific species could influence that species alone. By pulsing the source and inducing known patterns of nerve-impulses in its antennae, it could be repelled, attracted or confused. A sub-millimetre-wave anti-mosquito hat could broadcast a fake "nasty smell" on the mosquito waveband, making the wearer mosquito-proof while not upsetting butterflies or other innocuous species. Similarly, cockroach-repellers and ant-bafflers broadcasting in kitchens and larders could repel these creatures. Their feeding and breeding could be disrupted, destroying them by safe, non-chemical means.

Many insects seem to steer by their antennae, turning until a smell affects both equally. If so, polarised submillimetre waves, which must bear unequally on the angled antennae, could be used to take over an insect's steering. Daedalus's "radio control" for insects puts out a variable-polarisation submillimetre beam. If there is a bluebottle careering around the room, you can tune into its waveband and then steer it out of the windows. Instant-knockdown sprays have sold by the million. Today's children of the electronic age, prissily virtuous about chemical pollution but raised on blob-manipulating TV games, should rush to snap up Daedalus's humane bug-steerer. Unfortunately, the more pugnacious spirits would probably force the hapless creatures into ludicrous manoeuvres or even aerial dogfights with each other.

South African  
Radio League

HEADQUARTERS

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Suid - Afrikaanse  
Radioliga

HOOFKANTOOR

The Chairman  
Port Elizabeth Branch  
SARL  
P O Box 462  
PORT ELIZABETH  
6015



25 February 1985

Dear OM

Algoa Branch have drawn our attention to the efforts of a gremlin in the Motions for the 1985 AGM. Particularly motions 7, 14, 20 and 25. These motions were put forward by Algoa Branch and not your Branch. Please accept our apologies. We will make a statement in this regard at the AGM.

73

A handwritten signature in black ink, appearing to read 'R.V. Hugo', with a long horizontal stroke extending to the right.

R.V. Hugo ZS1LY

SECRETARY - SARL - H.Q.

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LETTER RECEIVED FROM RUDY VAN DER ELST ZS2EE.

Thank you very much for the congratulations on my birthday. It is nice that the P.E. Branch keeps also in this way in contact with the members.

The distance between P.E. and Port Alfred makes it impossible for me to attend meetings etc but via QSK-PE I still follow with interest anything that happens there.

Best regards.  
Rudy ZS2EE.

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If you haven't received a birthday or anniversary card from the Branch it is because we don't know the dates! Don't be a secret society - pass on the info if you like.

# THE CASE FOR AMATEUR RADIO

continued.

Today's amateur radio press abounds with articles by experts in a variety of these and other technical frontiers. Typical titles from recent issues include:

- design of the ultimate amateur satellite
- broadband steerable phased antenna arrays
- multiple beacons and other aspects of microwave planning
- radio propagation and solar activities
- design your own active audio filters
- the microprocessor and repeater control
- a prototype pulse code modulation system
- slow scan television image processing.

It is a demonstrable fact that the utility and practicability of various types of communications equipment and systems can most effectively and economically be proven by amateurs, for they are uniquely equipped by experience and have the necessary effectiveness, to make necessary modifications and improvements, and to articulate at a high technical level the results obtained. The result is better systems at lower cost.

## EXPLORERS OF PROPAGATION PHENOMENA...

Perhaps one of the least publicised contribution of the amateur radio service is its long record of discovery and development of effective radio spectrum usage. Of all of the world's radio services, amateur radio has become - through necessity - the most efficient user of its frequency resources. As the service with the greatest number of licensed stations occupying useful high frequency communications segments, the amateur radio service has developed unique time and frequency sharing techniques, employing directional antennas, appropriate power levels and wavelengths, and discovering and adapting to practical use new propagation modes and paths.

After eighty years of use, much remains to be learned about the ionosphere and the variety of other propagational mechanisms affecting the passage of radio signals. Through ceaseless experimentation and sharing of information, amateurs have been at the forefront of knowledge in this field. Amateurs work at experimentation on a daily round-the-clock basis, with the typical enthusiasm and dedication of volunteers. Being numerous and widely dispersed, they are enabled to observe, measure and record propagation phenomena and anomalies which would otherwise remain mysterious and unpredictable. It is no accident that radio amateurs are to be found employed at every level in every field of radio communications, for they bring with them valuable knowledge and insights into the vagaries of the environment in which radio waves travel.

The International Beacon Project established by Region 1 of the IARU is a world wide network of 28MHz beacon stations used by both professional scientists and the amateur service. The signals from these stations over a number of paths are analysed and the results published and employed to check computer produced propagation forecasts. This valuable service is available to the community without direct cost.

Radio amateurs have demonstrated the feasibility of using a variety of propagation modes including moonbounce, meteor scatter, auroral reflection, tropospheric ducting, sporadic-E and low power satellites: they continue to shed new light on the possibilities and limitations of these.

Amateur radio is an efficient user of vhf bands and has provided a steady source of pressure for the development of improved receiver, transmitter and repeater designs, so as to enable the largest number of stations to operate effectively and compatibly within a small fraction of radio frequency spectrum. In this way, too, amateur radio has provided a model for government and commercial users of the spectrum.

These benefits accrue to the larger society as the result of an enlightened and long-standing international policy of assigning representative segments throughout the spectrum for use by radio amateurs thus providing the means whereby experimentation and discovery can flourish.

#### PROVIDER OF EMERGENCY COMMUNICATIONS...

A widely recognised aspect of amateur radio activity is the provision of emergency communications services in time of local, national, or international disaster. From the earliest beginnings, amateur radio has responded swiftly and effectively to the call for communications assistance when normal channels are lost as the result of calamity.

The greater becomes society's dependence upon communication services, the more sorely these are missed when disruptions occur. Amateur radio has, time and again, been the vital link in bringing first word of disasters such as floods, hurricanes, earthquakes, fires, tidal waves, volcanic eruptions and tornados. Because radio amateurs tend to be distributed evenly among the populations in most countries of the world, they are at or close to the scene wherever serious emergencies occur, and thus are usually the source of first news and the most active in providing communications channels for early relief efforts.

Radio amateurs take pride in their ability to render this unique public service, and work at maintaining a state of readiness through a variety of training exercises that include the operation of efficient and widely publicised networks, and worldwide contests that lead to improvement of equipment and operating efficiency and well-supported field exercises employing independent sources of electrical power for their equipment. Amateur communications circuits are tested daily and extend into almost every region in the civilised world, around the clock. Furthermore, radio amateurs typically maintain close ties with government and relief agency officials to assure prompt availability of their emergency communications resources in the event of need, whether this be a major disaster affecting the lives of hundreds of thousands of people, or locating a special medicine for an ailing child in some remote outpost.

And it is a totally volunteer resource, costing the public nothing.

#### INTERNATIONAL FRIENDSHIP.....

In our new world of rapid transportation and instant communications.. which also possesses the capability for total destruction... no greater need exists than that the world's people begin to understand and to sympathise with one another. Amateur radio is totally unique in that it offers the only direct, person-to-person, real time opportunity for regular international contact among the people of the earth. Amateur radio transcends political, geographic, religious, economic, professional, ethnic, cultural and age barriers in a way that is unrivalled in the human experience. Except in those few cases where it is specifically forbidden by governmental decree, radio amateurs of the various nations, from their own homes, converse on a friendly and amicable basis with their fellow experimenters around the world, sharing experience and expertise alike.



Amateur radio is potentially available to individuals in nearly every walk of life. Kings and clerks, presidents and policemen, doctors, lawyers, housewives, government officials, authors, artists, musicians and schoolboys are radio amateurs. While a relatively high percentage of the world's radio amateurs are also employed as engineers, technicians, scientists or managers in some phase of electronics, the majority are not. Amateur radio provides for each of its participants a host of challenging technical and operating opportunities which are carried on in direct, personal association with a highly cosmopolitan group.

It has frequently been observed too, that amateur radio establishes for each nation of the world a unique identity, projecting a far more attractive and persuasive international image than can be achieved through the medium of shortwave broadcasting or other contrived media. Indeed, the absence of a national amateur radio service is a particularly eloquent testimonial to local conditions.

Without external direction, the amateur radio service functions as a cohesive international fellowship that daily serves to strengthen the bonds of understanding and goodwill among the world's people.

#### PROVIDES A LEARNING OPPORTUNITY FOR ALL.....

Although the average age of the radio amateur is in the mid-thirties, young people and retired persons in growing numbers are entering the field. As a learning opportunity for the youth of the world, the value of amateur radio is abundantly clear. It is also serving increasingly as a productive outlet for older persons, as well, for it is an activity that can be conducted from one's home while providing stimulating social contact and opportunities to be useful.

Many among the world's population suffer from physical handicaps of one kind or another. Amateur radio offers for each of them an opportunity for external contact that can be achieved in no other way. Particularly as it is a window on the world for the blind; many sightless amateurs have distinguished themselves by their technical and operating achievements as radio amateurs.

Indeed, amateur radio is a rewarding involvement for all who persevere to acquire an amateur licence, but it is particularly valuable to those who for reasons of age or physical limitation cannot otherwise maintain regular contact with society. It is an activity that deserves to be encouraged, cultivated, protected and assured of adequate frequency resources in order that it may continue to perform these and countless other significant public services.

#### A DISCIPLINED SERVICE.....

Radio amateurs are licensed by the government of each of the nearly 350 countries where amateur radio is permitted. Each licensed amateur becomes a registered and identified user of radio communications equipment. The typical radio amateur cherishes this official sanction; he engages only in legitimate communications and monitors the amateur bands to assure that any infractions or intrusions by other services are promptly reported to his government authority.

Because of their geographical dispersion, radio amateurs are able to observe spectrum usage from many vantage points and to compare their observations. They are prompt to identify sources and seek correction of improperly adjusted or defective radio transmitters, and have organised an effective worldwide "Intruder Watch" to guard against the misuse of radio frequencies.

Skills are developed in radio-location through competitive activities such as hidden transmitter hunts, and amateurs employ this unusual competence to track down and report to their government any unlicensed or illicit users of the radio spectrum.

Radio amateurs have often been cited by government authorities for their ability to regulate and monitor effectively their own activities and to avoid interference to other radio services, even in situations where frequencies are shared. It is a reputation that is well deserved and one in which amateurs around the world take pride.

#### A GROWING SERVICE....

It is not surprising, in our technologically advancing world, that increasing numbers of newcomers are being attracted to amateur radio. It is apparent that at the present rate of increase the number of stations of the amateur services approaches 2 million.

Ready to share their rewarding and productive activity with others, radio amateurs world-wide are typically helpful in encouraging others to acquire the necessary knowledge and skills to pass government examinations, so that they, too, may become eligible to participate. The many salutary features of a growing amateur radio service are well recognised by most of the governments of the world; they are aware that the correlation between national gains in electronics technology and productivity, and the growth of its amateur radio service, is no mere co-incidence.

Vic Clarke W4KFC.

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#### WILL THE TV SET REPLACE YOUR RADIO? THE ANSWER IS "DEFINITELY NO!"

Many listeners are asking: "Should I buy a new radio now or should I wait until I can get a television set?" Widespread glamour stories about TV makes it difficult to decide.

When TV is introduced in South Africa, it will be beyond our slender resources to keep the programme on the air for more than a few hours a day. On the other hand, radio programmes average 16 hours a day and all the indications are that radio and TV will exist side by side for as long as we can foresee.

These two entertainment media are very different. TV demands full attention. It eliminates hobbies, amusements or occupations. Radio offers music and light entertainment as a pleasant background to the daily chores or the evening hobby. The shortwave side of your radio will continue to bring you interesting items from faraway stations. Your radiogram will serve as long as both you and the children love music.

Who will pay for TV? The viewers. A cautious estimate of potential TV homes is 300 000. If each were equipped with a set at £60, the total cost to viewers would be £18 000 000. The cost of licence and service would be £1 per month for each set. This is a yearly cost of £3 600 000. TV will cost the SABC precisely £ nothing. If this sounds silly, remember that whatever the SABC spends must eventually come out of the listeners pocket. The SABC has a grave responsibility to see that when TV comes viewers will get the best possible service at the lowest possible cost.

(From the S.A.B.C. Radio Listeners Handbook, May 1951.  
Price One Shilling)

# CQ DX CQ DX CQ DX

DX BULLETIN FROM ARRL HEADQUARTERS MARCH 1, 1985.

- GREECE: W16FA and PAW GJA will operate J4ATC at the International Federation of Air Traffic Control Associations in Athens from March 16 to 22. Look for them on 14277Khz, before 1000 and after 1400Z.
- DOMINICA: K4LTA/W7 has been active on both phone and cw on all bands, including 160.
- RODRIGUES ISLAND: 3B9CD has been active on 1828 Khz at 0130Z working the Eastern US. He is rumoured to be going to 3B6 soon.
- ALGERIA: 7X5AB has been active on 1840Khz with T77V at 0530Z.
- 160 METERS: Low absorption and low MUF have produced tremendous 160 meter conditions. Stations active include 3C1BC, J28EI, Z21EV, 9J2JN, 9K2DX, VP8AJL, 3B9CD, k1MM/SV5, TA1MX and P29PR.
- CANADA: All Canadian amateurs may use the following prefixes from February 17 to April 17 to celebrate the 75th anniversary of the Girl Guide movement.  
Newfoundland and Labrador VF1 and VF2  
Yukon VG1  
Rest of Canada CG1 to CG8.

## Propagation News

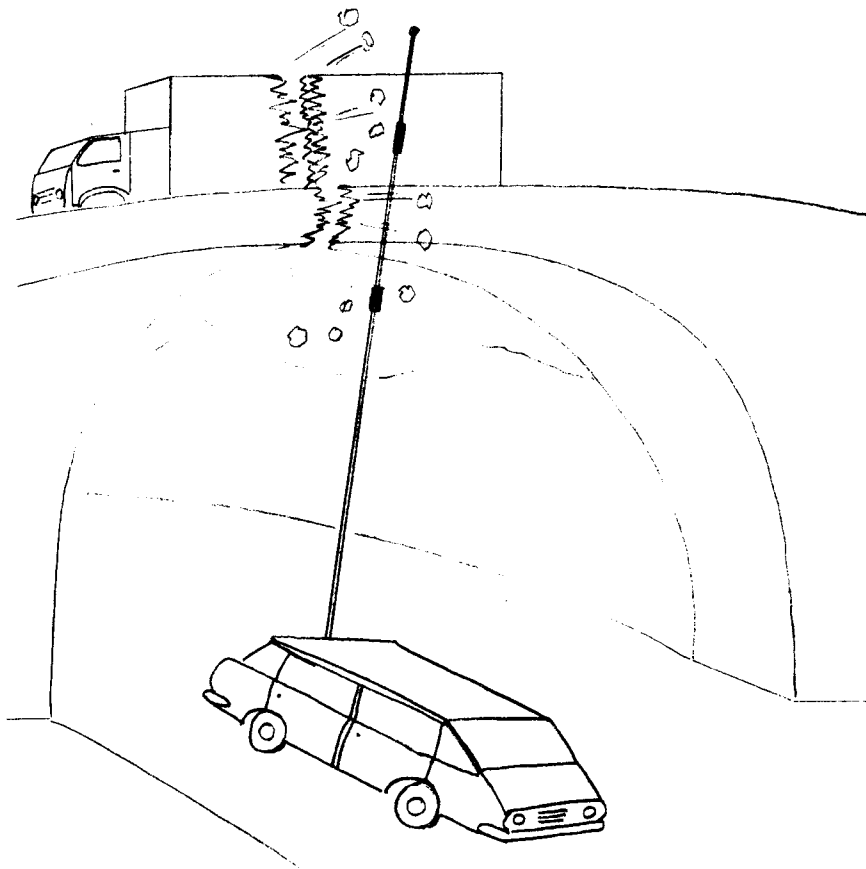
Propagation Forecast Bulletin Nr 8 from ARRL Hq February 24 1985.

The solar flux reached its February high, 78, on the 19th. It then dropped back steadily to the months low 72 on the 24th. The flux is expected to drop to about 70 by the end of February. A mild rise is likely in the first few days of March. QST prediction charts covering late February and early March continue to be on the optimistic side as to maximum usable frequency. The February QST charts are based on a solar flux of 89. Those in the March issue are based on a flux of 88. Experience this winter has confirmed that solar flux is numbers in the higher seventies or higher are needed if the 21 mhz band is to be useful for DX work on anything but the most favourable north/south paths. Flux values consistently in the eighties or higher are needed to do the same for 28 mhz. With the current flux readings even 14 mhz is mainly a daytime band. Low ionisation density generated by such low solar activity will continue to turn our lower frequencies into long skip territory, often hampering their use for reliable communication over distances under a few hundred miles. This is bad for traffic handlers but it helps to spur interest in working for multiband DX awards.

Thanks again to Buck ZS2RM for this information.

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Quintophonic sound is the latest thing with radio enthusiasts. The music goes round and around, and it come out of here, and there.... and here....and there....and there....and here.....



Many thanks to Clive ZS2RT for all the original funnies.

  
  
TELEPHONE 22614

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