

## RECORD VHF 144MHz TEP / Posible TEP en UHF 432MHz

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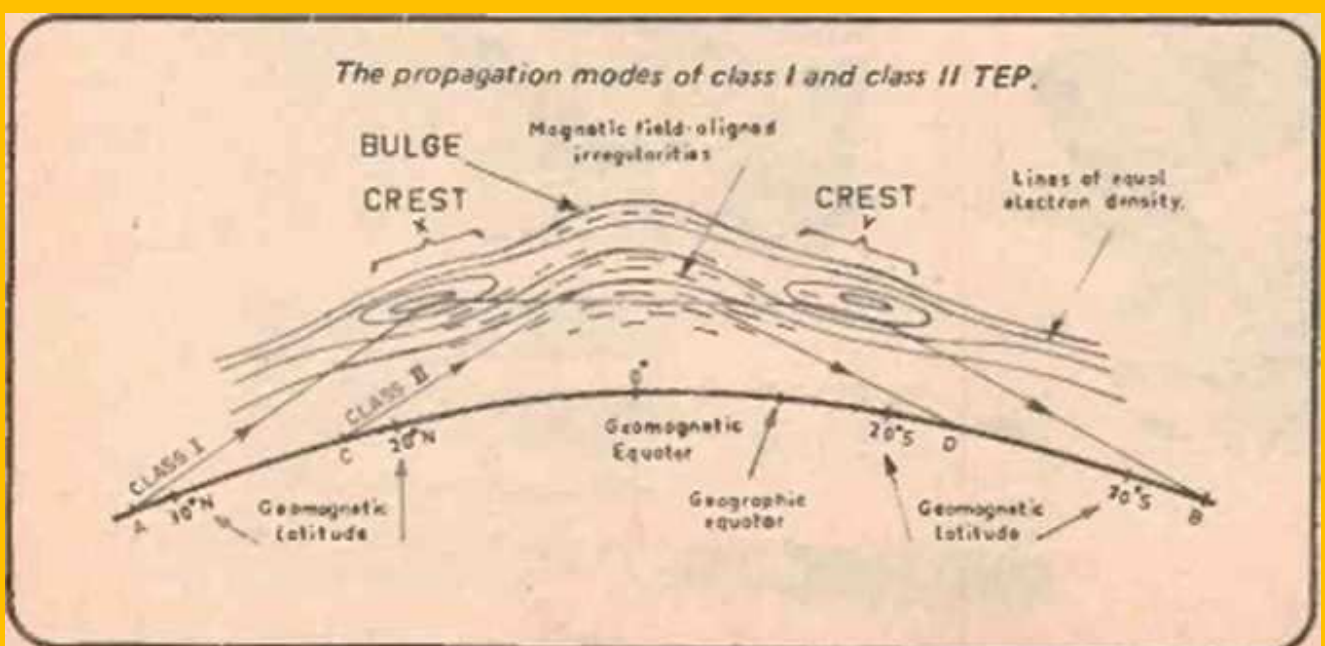
Los recientes contactos récord en la banda de 144 MHz aparentemente apoyados por la Propagación Trans Ecuatorial (TEP) de tipo nocturno (o Clase II) entre Australia y Japón, Puerto Rico y América del Sur, han sido noticias calientes en círculos amateurs entre aquellos que están interesados en VHF/UHF DX.

Sin embargo, tan pronto como el límite de frecuencia superior de la TEP clase II se extendía a 144 MHz, previamente establecido como en la región de 100 MHz, que evidencia hay de la posible extensión de este modo de propagación ionosférico incluso a las Ultra Altas Frecuencias (UHF) 432 MHz.

YV5ZZ ubicada en Venezuela, se dice que escuchó una estación argentina, LU3AAT en 432.1 MHz en febrero durante una apertura cuando se escucharon estaciones argentinas trabajando estaciones del Caribe y países del norte de América del Sur. Sin embargo, no se estableció el contacto bidireccional, pero esto parece sólo una cuestión de tiempo.

El récord mundial de distancia terrestre de 144 MHz fue establecido por LU5DJZ y KP4EOR el 12 de febrero de este año sobre una distancia de 6400km (3977 millas).

LU5DJZ ubicado en Mar Del Plata 400km al sur de la capital argentina, trabajó KP4EOR a las 0015 GMT en 144.1 MHz con señales sobre 5 por 9 en ambos sentidos. La banda lateral única fue utilizada por ambas estaciones, LU5DJZ ejecutando 400 vatios PEP y una matriz apilada de dos yagis de once elementos y KP4EOR utilizó 800 vatios PEP y una matriz de cuatro yagis de nueve elementos apilados.



# AMATEUR COMMUNICATIONS

## Evening-type TEP extended to 432 MHz?

Recent record-breaking contacts on the 144 MHz band apparently supported by evening-type (or Class II) transequatorial propagation between Australia and Japan, Puerto Rico and South America, have been hot news in amateur circles amongst those who are keen on VHF/UHF DX.

However, no sooner was the upper frequency limit of Class II TEP extended to 144 MHz, previously established as being in the 100 MHz region, than evidence of the possible extension of this ionospheric propagation mode even higher in frequency — to 432 MHz — has come to hand.

YV5ZZ, located in Venezuela, is reported to have heard an Argentinian station, LU3AAT on 432.1 MHz in February during an opening when Argentinian stations were heard working Caribbean stations and stations in the northern countries of South America.

However, two-way contact was not established, but this seems only a matter of time.

The world terrestrial distance record for 144 MHz was established by LU5DJZ and KP4EOR on the 12th of February this year over a distance of 6400km (3977 miles).

LU5DJZ, located at Mar Del Plata — 400km south of the Argentinian capital, worked KP4EOR at 0015 GMT on 144.1 MHz with signals over 5 by 9 both ways. Single sideband was used by both stations, LU5DJZ running 400 watts PEP to a stacked array of two eleven element yagis and KP4EOR used 800 watts PEP to an array of four stacked nine element yagis.

Readers wanting to know more about transequatorial propagation are referred to "VHF Transequatorial Propagation" by Roger Harrison VK2ZTB in the June 1973 issue of ETI (p.88).

## Moonbounce News

Al Katz, K2UYH, moonbouncer extraordinaire, has earned the *world's first WAC* (worked all continents) award *entirely using moonbounce on 432 MHz*. Naturally, his Australian continent contact was the Dapto Moonbounce project, VK2AMW, about which more shortly.

Since Al's achievement, six others followed in fairly rapid succession. These were (to date): VE7BBG, W1JR, I5MSH, K3PGP, PA0SSB and SM5LE. It shouldn't be long before ZE5JJ makes the grade. Next band the moonbounce gang are going to try cracking WAC on is 1296 MHz!

The Dapto Moonbounce project buildings and equipment were severely damaged by vandals in February, necessitating closure of the facility, pending the finding of a new site.

Eight years of dedicated work by a small group has been senselessly destroyed and one of the world's leading 432 MHz EME stations put off the air. It is hoped that, with the co-operation of the University of Wollongong and the generosity of local amateurs, the project will be successfully relocated and re-equipped.

## The Ron Wilkinson Achievement Award

This award has been created as a memorial to the late Ron Wilkinson, VK3AKC. Through the generosity of his widow, Mrs Mary Wilkinson, the award will take the form of (a) a certificate, (b) \$50 cash, (c) books to the value of \$50 and (d) WIA subscription paid for one year. Mary donated \$1,100 to fund the award, which has been invested; interest from this to meet the costs of the annual award, supplemented by funds from the WIA.

Ron Wilkinson, VK3AKC, was a man of many achievements. He won the marathon Ross Hull Memorial VHF contest (held during every summer)

several times, held a number of VHF/UHF distance records at various times and was one of the world's foremost moonbounce stations on 1296 MHz, achieving a number of records in that field also.

The award is to be made annually during the month of March — nominally on the 3rd of March, relating to the previous calendar year as far as practicable.

The award is for "special achievement in any facet of amateur radio". For example: Development of state of the art techniques, microwave activity, involvement in clubs or WIA affairs, notable public service, achievement in using satellites etc.

The award is only available to amateurs from VK call areas. Individuals may nominate or make personal application (to their WIA state division) by 31st October each year.

The WIA executive will nominate the recipient by 31st January. Preference will be given to WIA members. The award will be announced in Amateur Radio (WIA journal) in March — 3rd March is the birthday of the late Ron Wilkinson.

Joint awards can be made, with a division of the award.

The recipients for 1977 were Wally Green VK6WG of Albany, WA, and Reg Galle VK5QR, of Enfield SA, for their world record-breaking 1296 MHz contact early in 1977.

## Another UHF record for VK

January was certainly the month for breaking records. Apart from the 432 MHz record-breaking contacts between VK6 and VK3 mentioned in previous issues, Wally Green VK6WG has contacted Reg Galle VK5QR on 2304.1 MHz. The distance between Albany (VK6) and Enfield (VK5) is some 1,900km, stretching the existing world record of 760km by some *two and a half times!*

Reg, VK5QR, used synthesized SSB running about 4 watts output to a one-metre diameter dish located about 10m off the ground.

Wally, VK6WG, used CW. The drive was derived from an SCR522 (good gosh!) at 128 MHz, multiplying nine times to the final which employed a 2C39A as a doubler giving about 3 watts into a 2 metre diameter dish.

Signals were S8/9 both ways and the QSB observed was at a slower rate on 2.3 GHz than on 1296 MHz. At times, the signals were stronger on the higher band, even though more power was being used on 1296 MHz.

Congratulations gents. Another world record for the VKs!

