

ATTENTION

finlands dx-club r.f.

äldst och bäst

NÅGRA SYNPUNKTER PÅ EUROPEAN DX-COUNCIL

Representanter för DX-organisationerna i Danmark, Holland, Norge, Sverige och Västtyskland träffades i juni 1967 i Köpenhamn för att diskutera bildandet av en europeisk takorganisation för DX-are. Förhandlingarna ledde till ett positivt resultat, och samma höst kunde organisationen påbörja sin verksamhet under ledning av den välkände svenske DX-politikern Claes-W. Englund. Senare har Schweiz anslutit sig till Council genom den ena av landets två konkurrerande klubbar, medan förhandlingar för närvarande förs med Malta och Österrike.

Fastän Council nu fungerat i snart två år, måste man tyvärr konstatera att resultaten tills vidare varit rätt anspråkslösa. Av de fyra arbetsgrupper som bildats är det endast den s.k. "Reception Report Committee" som visat friska tag genom att tillskriva ett stort antal radiostationer för att få deras synpunkter på hur en lyssnarrapport skall vara utformad. Ännu allvarligare än arbetsgruppernas mindre tillfredsställande aktivitet är det faktum att den övriga verksamheten inom Council tydligen begränsats till diskussioner mellan de anslutna ländernas representanter, vilka sedan inte brytt sig om att sprida information om de behandlade frågorna inom sina respektive länder. Sålunda har Council bestått av en inre ring av DX-are, som inte har haft någon kontakt med de stora massorna.

Den allvarligaste kritiken som i dagens läge kan riktas mot European DX-Council är dock att organisationen genom att den baserar sig på anslutna länder gör det omöjligt för DX-organisationer i så utvecklade DX-länder som exempelvis England och Finland att ansluta sig. I en så internationell hobby som DX-ingen, inom vilken flertalet klubbar har medlemmar i många europeiska länder, måste nog en organisation av denna typ basera sig på klubbmedlemskap eftersom DX-klubben är den naturliga enheten inom hobbyen. Man kan bara hoppas att det initiativ som togs av de finska DX-klubbarna vid diskussionsdagarna i Spjutsund kommer att leda till att vi får till stånd en europeisk DX-organisation på en sundare bas, en "Federation of European DX-Clubs".

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Årgång 16

ATTENTION utges 12 gånger per år av Finlands DX-Club, Postbox 10214, Helsingfors 10. Finlands DX-Clubs medlemsavgift, som inkluderar prenumerationsavgift för ATTENTION, är 6 mark per år. Medlemsavgiften betalas på klubbens postgirokonto 15993, i Sverige 547134. Provexemplar av ATTENTION för 50 penni eller 1 IRC.

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Ansvarig utgivare: Daniel Söderman

KLUBBMÖTESVERKSAMHETEN har de senaste tiderna gått för halv maskin - men nu är det meningen att få fart på den igen. Enligt beslut för någon vecka sedan skall den andra torsdagen varje månad bli ett klubbmöte, till vilken programverksamheten koncentreras, med t.ex. filmer frågesporter o.dyl. Ceremonimästare, programchef eller vad den officiella titeln nu blev är Raimo Vuojärvi. Starten sker genast efter vapp - den 8 maj. Då är det meningen, att vi skall få se en film om det amerikanska rymdprojektet Apollo, det lär vara en sak som verkligen är värd att ses.

I FÖRRA NUMRET hittade ni en tom sida -eller hittade ni den? Sådana har ju förekommit tidigare i enstaka exemplar p.g.a. tekniska missöden, men nu förekom den i allas nummer. Visserligen var den inte planerad från början, men när det såg ut att bli en sida över, lät vi den gå ut som tom - för att studera reaktionen. Vadslagningens vågor gick höga i klubblokalen, tipsen varierade från 6 till 40 klagomål (skriftliga). Resultatet? 0. Segrare blev sålunda den mest pessimistiska, d. v.s. h-red. Den enda som klagade (muntligt) var ordf., som inte visste något om tilltaget.

BREVLÅDDAN har fått ett anonymt bidrag - det hittades i skrivmaskinen i klubblokalen. I fri översättning från finskan lyder det sålunda:

vänskap 4? Betyder den någonting? Visst betyder den. Den är en av de viktigaste sakerna i livet, den är liksom livets salt och vatten, även inverkar den på vårt liv i mycket hög grad. Vänskapen i dess kollektiva mening betyder en kamrats stora inverkan på ens eget liv. Den kan även betyda en Annan människas alltför stora Inverkan på ens eget liv, man kan också föreställa sig en väns hjälpsamhet i Livets onda samt Glada sidor. en vän är både hjälpsam Och också djävulsk, själv är jag bestämt av denna åsikt

Tack för det, kära O. Sällan har låddan fått så animerade och spirituosa bidrag. Om någon läsare har en annan teori om Väns kapen eller något annat på dx-området, så står detta forum öppet.

SDOPDATE den 20 april. Eftersom lämpligaste torsdagen för nästa tidningsutgivning infaller den 1 maj, är det högst tvivelaktigt om majnumret kommer då - eventuellt flyttas dagen U en vecka in i månaden.

GLAD DX-PÅSK OCH -VAPP

önskar redaktionen

TOLFFE RONDEN

TO L F T E R O N D E N

DX-KUUNTELIJA 3/69, 60 sidor. Ledaren behandlar radions ställning som massmedium vid sidan av televisionen, och konstaterar, att t. ex. i USA radion är på uppåtgående. 1966 fanns där över 262 miljoner radioapparater mot bara 55 miljoner TV-apparater och 60 miljoner dagstidningar (= sammanräknad daglig upplaga). - Emisoras Pio XII i Bolivia presenteras - stationen grundades för när detta skrivs 9 år och 363 dagar sedan. - "España-DX" består av en översikt över de stationer som hörs på den

intressantaste Spanien-frekvensen, 1133 kHz. (13 av 21 hördes senast år). En överraskning i tidningen är ett DX-Horoskop, av vanlig veckotidningstyp. Man får väl anta - och hoppas - att den är tänkt som parodi, men litet men- och fantasilös är den nog. En grej som också verkar lite betänklig är medlemsröstningen om vem man vill se presenterad i tidningen nästa nr. Bland övrigt material hittar vi en artikel om esperanto, ett kåseri - från Frendx - ovh professor REW:s brev (om hans campaigns...)

HJÄLP FÖR DX-ARE 2/69, 20 sidor, tycker att Attention är en snygg, men svårsläst tidning. Tja, kanske är det så. Brunei, Far East Network och Lars Skoglund står i presentationstur denna månad. För att citera ett citat, kopierar vi listan över de 10 bäst svarande stationerna i LA (Enligt DX-Radiococh QSL-spalterna i 8 olika DX-tidningar:

R Yaracuy	VEN	qs155
R Guarani	BRAS	46
R Lara	VEN	45
WIBS	WINDW I	43
R Rumbos	VEN	42
R Globo	BRAS	34
R TV Gaucha	BRAS	33
R Aparecida	BRAS	33
Em Nueva Granada	COL	32
R Rural Brasileira	BRAS	31

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URKKIJA 3/69, 33 sidor. Vi klipper igen ett klipp (ur Turun Sanomat):

Radio Nord och Jack Kotschak planerar come back. Jack S. Kotschak avslutade sin karriär som pirat år 1962. Nu tänker han göra come back på scenen och har därför blivit mod. - Radio Nords fader uppenbarade sig på det moderata Saling-partiets möte i januari, fick en partibok, och höll sedan ett krigiskt tal mot radiomonopolet. Yngve Holmberg, Gösta Bohman och de andra modsen visade sitt bifall. "Om vi borgare vinner valet år 1970, grunder jag inom 6 veckor en ny Radio Nord, sa Jack. Då Kotschak satte i gång Radio Nord, fick han 5,5 miljoner av en oljemiljonär från Texas (som har guldtrappor). Han köpte skeppet Bonjour, skaffade Nicaraguas flagga och satte reklamradion i funktion. Nu hoppas Kotschak att Bohman, Holmberg och de andra kamraterna störtar regeringen 1970 och ändrar lagarna så, att K. legalt kan bli rik på sin melodiradio. - Ks specialområde är att skapa behov med hjälp av intensiva reklamkampanjer. En tid använde amerikanerna om honom beteckningen "vår man i Europa. osv.

Detta var nog det roligaste i tidningen. Andra ämnen är Lettlands Radio Riga, La Voz de Chile - Radio Cooperativa, 4VEH, Radio Luxembourg och Ilpo (Nisonen). - Ett häbilt nummer, som dock inte kommer att gå till historien.

DX-RADIO 3/69, 16 sidor, umgås med planer på att upphöra med sin berömda kortvågstabell. Ställningen bland medlemmarnas åsikter är enligt insändarna 10 för och 3 mot slopandet. Med tanke på att detta skulle möjliggöra fyra sidor text utöver det nuvarande (=ingenting) är ett slopande väl motiverat.

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KORTVÅGSGENYTT 3/69 är hela 34 sidor tjockt. En stor del av dessa åtgår till kortvågstipsen - de är nämligen 700 till antalet, rekord alla tider, alla kategorier? Därtill är artikelsektionen ovanligt omfattande och som en bilaga medföljer en förteckning över samtliga till Danmark anlända QSL 68. Ett övertygande nummer.

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CDXLB-Boletim är förmodligen rätt okänd bland våra läsare. Dock har den presenterats en gång tidigare i Attention, vilket nogsnamt uppmärksammas i detta nummer av tidningen, på två olika ställen till på köpet. Utgivare är Clube DX Luso-Brasileiro i Curitiba, Brasilien, den enda DX-klubben i Latinamerika. Redaktör är Ivo Pugnaroni, som f.ö. anmäler, att han fått QSL från Finland BC Co på 35 dagar. Även andra bekanta namn man stöta på: "Continuamos hoje e publicar, graças a uma gentileza do nosso bon amigo Jarkko Arjatsalo, alguns endereços de emissoras internacionais..." - Själva bulletinen är inte alltför imponerande, jämfört med vår standard (5 sidor), men som företeelse är den ju mycket positiv. Nyttig kan den bifogade listan över alla brasilianska stationer vara.

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THE CIMBRER DX-NEWS 3/69, 32 sidor. Artikelsektionen innehåller följande rubriker: Rádio Clube de Mocambique, BBCs historia, Voice of America och Bonaire Noord. Som synes inte alltför originella objekt, men naturligtvis tacksamma med tanke på det tillgängliga materialet.

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RADIO PYONGYANG-tidningen meddelar, att i Finland grundats "Associated listeners to Radio Pyongyang". Närmare detaljer saknas om denna konkurrent till MIRAMO (?).

Den 22 mars 1969, exakt 10 år och 1 månad efter det möte som blev upphovet till Federation of Finnish DX-Clubs, hände det som mången säkert länge väntat på. Nämligen att representanter för alla Finlands DX-klubbar träffade samman för att i två dagars tid diskutera gemensamma problem och bekanta sig med varandras synpunkter i olika frågor. Platsen var Spjutsund och närvarande var delegationer ur Finlands DX-Club, Finlands Svenska DX Förbund, Suomen DX-Kuuntelijat och Uudenmaan Radiokerho. FDXC's delegation bestod av Daniel Söderman, Eric Gagneur, Pertti Äyräs och Leif Blomqvist (undertecknad var endast observatör och sekreterare utan yttrande- och rösträtt).

Det att allade närvarande var ense om att diskussionerna skulle leda till resultat framkallade en positiv anda som ledde till att allt löpte snabbt och smärtfritt. Något som mycket höjde trivsamheten under diskussionsdagarna var stället där de hölls. Här fanns möjligheter till avkoppling i pauserna genom spel, bl.a. pingis och biljard, öppen spis för korvstekning, en utomordentlig radio för den som ville DX-a, o.a.

Att många viktiga beslut fattades här kommer säkert att märkas, nu eller i framtiden. Förstås fann de olika klubbarna inte en gemensam linje i allting, så att beslut kunde fattas, men alla tog i alla fall ställning till samtliga frågor och framförde sina åsikter och synpunkter.

Innan vi går över till de olika frågor som behandlades där kanske det är bäst att ta en titt på arbetsordningen, då här beslöts något som är av stor betydelse, nämligen att beslut endast kan fattas enhälligt. Annat som kom upp i arbetsordningen var diskussionsdagarnas ändamål och deltagare (se inl.), därtill frågor om protokollets uppläggning och om kommande liknande tillfällen.

Den första punkten på dagordningen tog upp European DX-Council

till behandling. Här beslöts enhälligt att Finland inte ansluter sig till EDXC på nuvarande villkor. Jyrki K Talvitie fick i uppdrag att förfärdiga ett brev, där de finländska klubbarnas synpunkter framkommer, för att sändas till EDXC. Resultaten av denna korrespondens torde publiceras i någon av vårens tidningar.

I följande punkt behandlades frågor rörande landskampe na. Här föreslogs följande (i korthet refererat):

1. DX-landskamperna bör begränsas till Norden för att inte göra stationsvalet omöjligt.
2. Priserna i landskamperna håller på att bli alldeles för många och för dyrbara, så en nedskärning av bådaddera vore på sin plats.
3. Stationsvalet kunde bestämmas till minimum 20 st. och (4) avlysningstiden till max. 30 minuter.
5. Till reglerna kunde tillfogas en paragraf som säger att då en tävlande inte lyckats få en enda programdetalj i sin rapport men ändå beskrivit programmet rätt bör hans beskrivning täcka minst 50% av sändningen för att få stationspoäng.
6. Vid uträkningen av resultaten i tävlingen mellan länder och mellan klubbar rekommenderas användningen av placeringsiffrorna.
7. Tropikbanden torde kunna godkännas.
8. Finska Mästerskapet borde anordnas av någon finländsk klubb och ej alls ihop med landskampen. I samband med detta beslöts att diskussionsdagarna avgör vilka som anordnar FMet. Senare (§ 10 i protokollet) beslöts att inget FM anordnas i år.
9. Landskampsarrangörerna bör i förväg meddela datum för resultatens tillkännagivande.

Vidare diskuterades reglerna för European DX-Contest 1969, och då här fanns endel icke tillfredsställande punkter beslöts att Da-

niel Söderman inrapporterar för arrangörerna av årets landskamp (Sveriges Radioklubb) diskussions dagarnas synpunkter på vissa saker, bl.a. en del av de ovannämnda punkterna. Därtill var det fråga om språket som skulle användas vid ifyllandet av tävlingsprotokollen (här rekommenderades att endast engelska används), bestämmandet av stationspoängen och endel datum.

I samband med diskussionen om Y-leisradios kortvågsprogram på engelska beslöts att en arbetsgrupp under ledning av Eric Gagneur skulle tillsättas, då det är onödigt att diskutera frågan om de andra klubbarnas deltagande i fortsatt utformning av programmen på dessa diskussionsdagar. Övriga medlemmar i gruppen blev Kim Lindström, Jyrki K Talvitie, Veli-Matti Kuperinen och en tillsvidare outnämnd representant ur URK.

Vid behandlingen av Landlistekommittén beslöts för det första att denna är underställd diskussions-

dagarna och för det andra att den består av högst 6 medlemmar och att 2 nya per diskussionsdag kan väljas. Slutligen beslöts att varje klubb har rätt att ha minst en representant i kommittén.

Frågan om tävlingen mellan klubbarna om priserna i medlemsservicen uppskjöts till höstens diskussionsdagar. Likaså uppskjöts frågan om uppgörandet av en LA-statistik, medan däremot MW-statistiken beslöts göras i samarbete mellan klubbarna i så fall att alla är ense om delningen av arbete, kostnader, o.dyl.

Och från en av de sista punkterna i protokollet framgår att följande diskussionsdagar hållas 30-31 augusti 1969 i FSDXFs regim.

I sitt avslutningstal konstaterade Jyrki K Talvitie bl.a. att det var mycket fint att klubbarna kommit samman för att diskutera och att mycket och mycket positivt fått till stånd. Något som alla håller med om, eller hur?

VIMPLAR

Christer Herlin

Som jag befarade redan för en tid sedan kom det inga kommentarer eller synpunkter på Vimpelstatistikens vidare utformning. Då intresset inte är större än så anser ovantecknad att denna spalt så småningom får ge rum åt något annat nyttigare. Det har nu i alla fall kommit en anmälning med vimplar som lika gärna kan publiceras. Något annat som också aldrig publicerades var en statistik över stationer som svarade oftast med vimpel år 68. För den kanske det finns något intresse eftersom många säkert gillar att samla på vimplar. Men först de vimplar som Pertti Äyräs anmäler: Radio Universo (Bolivia), Radio San Rafael (Bolivia), Emisora Los Andes (Bolivia), La Voz de la Costa (Colombia), Rádio Sao Carlos (Brasilien) och La Voz de Madrid (Spanien). Och så de stationer som svarat de flesta gångerna under år 1968:

- | | |
|-------------------------------|---|
| 1. R Jornal do Brasil | 8 |
| 2. EAJ-15, R Esp de Barcelona | 6 |
| R Prag | 6 |

- | | |
|-------------------------|---|
| 3. EFJ-56, RJ de Malaga | 5 |
| R Sweden | 5 |
| R Pioneira de Teresina | 5 |
| WNYW | 5 |
| 4. R Habana Cuba | 4 |
| R TV Gaucha | 4 |
| R Nacional (Argentina) | 4 |
| R Bandeirantes | 4 |

Om vi tittar på stationer som tidigare år svarat bra så hittar vi förutom ovannämnda sådana som Rigas Radio, HCJB, RNE Sevilla, La Voz de Madrid, R Zaragoza, R Nederland, R Japan, osv. Så nu vet ni vilka stationer ni skall börja rapportera frenetiskt om ni samlar på vimplar. Om ni är riktigt flitiga kan ni komma upp till över 70 vimplar från c. 30 länder som var toppnoteringen senast i Vimpelstatistiken.

En annan tidning som också skriver då och då om vimplar är Urkki-ja men de har ett alldeles annat system än vi haft. Där presenteras en vanlig vimpelstation per gång och vimpeln är då också avbildad.

The Club member who has unlimited space available for his antennas is indeed fortunate, and is in a position to sit down and plan his "antenna farm".

It is, of course, possible to use a number of separate antennas, each installed for a special purpose. A number of horizontal dipoles may be erected, each one cut to a particular band and a multi-way switch used to select the dipole required.

It is now proposed to deal with a few very large antennas, but only essential details will be given. In view of the expense of the materials and of the difficulty in erecting some of them, it is suggested that the reader consults a handbook on the subject.

THE LONG WIRE, OR BEVERAGE ANTENNA (Fig. 1)

This is simply a long length of wire erected so that it points towards the required transmitting station. The length should be at least 250 feet (80 m), one end being connected to the receiver antenna terminal and the far end connected to ground through a 600

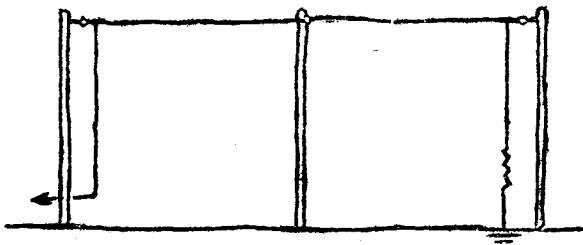


Fig. 1. Long Wire Antenna

ohm carbon resistor. This type of antenna works well over all the broadcasting bands, although reception can sometimes be improved by inserting an antenna tuner between the antenna and receiver.

THE INVERTED V. (Fig. 2)

The B.B.C. recommend this type of antenna for their overseas listeners. It is useful where a listener does not have room to run a very long wire and yet is able to

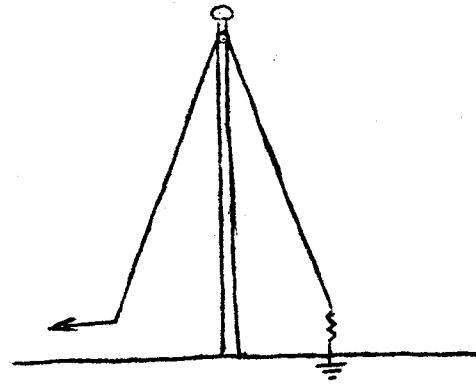


Fig. 2. Inverted V

support the apex of the V at the required height. For optimum operation on the 19 m band the dimensions are as follows. Total height 65 feet (20 m), length of each side 80 feet (24 m), length of base line 100 feet (30 m). The far end of the antenna should be connected to the ground through a 400 ohm carbon resistor, and this end of the antenna should point towards the required transmitter. This antenna is very directional and the dimensions given should provide reasonable reception over all the BC bands.

THE V BEAM ANTENNA (Fig. 3)

This antenna requires three supports and consists of two Long Wire antennas arranged in the form of a V, no terminating resistors being fitted. It is very directional, best reception being obtained when the open end of the V points at the target area. The two wires should be insulated from each other and both should be joined to a 600 ohm open wire feeder at the apex of the V.

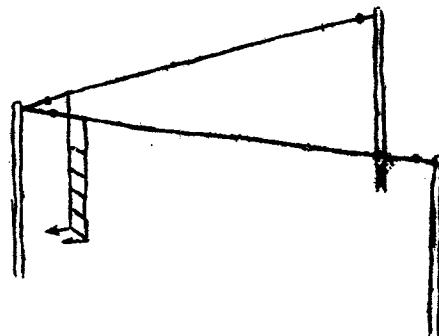


Fig. 3. V Beam

THE RHOMBIC ANTENNA. (Fig. 4)

This is a very large antenna that is often used for transmitting and also for reception of point to point transmissions. Although a Rhombic is usually designed for a certain wavelength, it has quite a wide bandwidth and should cover all the BC bands satisfactorily. The far end of the antenna is terminated with an 800 ohm resistor and this end should point towards the target area. An open wire feeder of about 800 ohms should be taken to the receiver. Typical dimensions for 19 m are: height 50 feet (15 m), length of each side 230 feet (70 m), angle at each side 140 degrees, angle at each end 40 degrees.

During the past few months many different antennas have been described and it is hoped that some members who are keen to experiment will give some of them a trial.

Finally a word about the direction

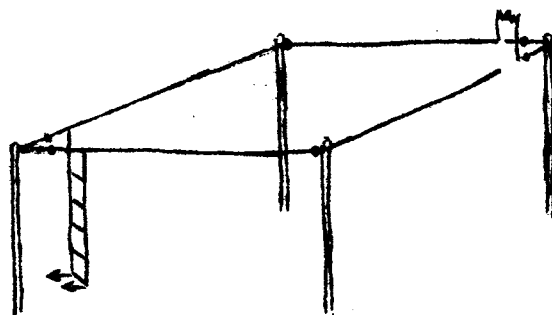


Fig. 4. Rhombic antenna

of an antenna beam. It is useless to get an ordinary atlas and draw a straight line between your town and the wanted station, because the projection used for these maps is not suitable. The best way is to get a Great Circle Map centred on the country you live in. If this is not obtainable, stretch a piece of string between the two points on a globe, and the bearing can easily be obtained by means of a protractor.

Next month: Which Antenna? Part 5
Protection from Lightning.

SOME COMMENTS ON BILL THORPE'S ANTENNA SYSTEM

by Norman Pilgrim

In AB 28, Bill kindly sent us details of his antenna system and asks my opinion of it.

From the diagram of Bill's installation it is obvious that he has done his utmost to make the best use of the space available. He also said that he wanted the antenna system to "look pretty" which I think is most commendable. It is interesting to study the antenna systems of the amateur transmitting fraternity and it will be found that some of them have very well erected masts and antennas, whilst others have bent or leaning masts holding up poorly constructed antennas. Efficiency and neat appearance often go well together and most transmitting authorities design their antenna systems with this in mind.

Getting back to Bill's antennas, there is one suggestion that I would like to make and that is to remove the 17 m length of wire between the two highest masts and

install a dipole instead. There is sufficient space to construct a dipole cut for any band that has special interest, up to and including the 31 m band. The feeder download could drop from the dipole centre insulator to the nearest corner of the shack, giving a near-vertical drop, and the end of the 3 m antenna could be anchored to this insulator.

If the receiver has dipole antenna sockets, then a dipole using 75 ohm twin feeder will be required. Should the receiver only have a single antenna socket, then it would be better to use a folded dipole using a 300 ohm ribbon feeder.

Installing such a dipole will give a marked reduction of electrical and induction interference, giving the best signal pick up in the east/west direction, although the pick up in the easterly direction may be modified by the proximity of the other antennas.

FUTURE TRENDS IN SW BROADCASTING AND IN RECEIVER DESIGN

by Norman Pilgrim

Pulling my armchair a little nearer to the fire on a cold January night, I lit my pipe and thought about SW listening in the 1930's. Over 30 years had passed and yet BC stations still radiate the same type of modulation, also a receiver designed 30 years ago will still give reasonable performance today. It is true that station powers have generally increased and that modern valves have improved the performance of receivers, the advent of the transistor having done much to make a good receiver easily portable, but today BC stations still use double sideband amplitude modulation just the same as they were doing 30 years ago. I wonder if there is another branch of radio or electronics that has stayed dormant for so long!

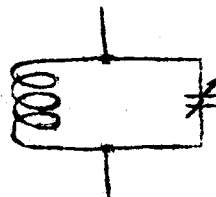
Consider first the transmitter. All the information that modulates the carrier is repeated twice, once in each sideband. Two thirds of the transmitter power is wasted in the carrier, which adds nothing to the received information and is, in fact, filtered out in the receiver. It follows that if the single sideband (ssb) system of modulation was used, only one sideband would be transmitted so that the signal would only take up half its original space in the BC bands. Furthermore the carrier would not be transmitted so there would be no heterodynes or whistles between adjacent channels. Ssb has been in use by point to point services and also the amateurs for a number of years and it may only be a matter of time before it is heard in the BC bands.

Many readers may shudder at the thought of trying to resolve an ssb signal in the BC bands after their experiences in the amateur bands, when they undoubtedly used their BFO and had only a fair amount of success. Now it is possible to resolve ssb with a BFO but it is a bit of a fiddle, so

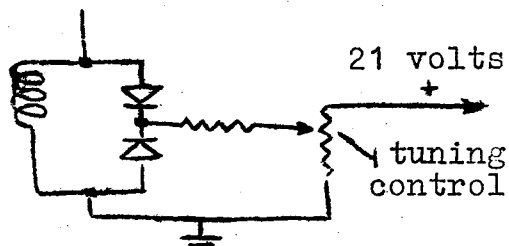
if they do change the transmitter modulation to ssb then it is only reasonable to expect that up-to-date receivers will be readily available to enable efficient reception of this mode.

Such a receiver would probably use a frequency synthesiser, which is really a very precise oscillator that can be set to the required frequency by means of decade or ten position switches. Tuning would just be a matter of setting five switches to the exact frequency required; no hit or miss and no fiddling! An output from the synthesiser can be taken to the receiver demodulator where it will serve as a carrier insertion oscillator, giving far superior results to the BFO. Receivers of this kind are available today, but they are very expensive and do not appear to be made in large quantities yet.

The usual idea of a tuned circuit, a coil with a variable capacitor connected across it, has been with us since the turn of the century and yet it seems that even this may be changed. Increased use is being made of varactor diodes, two of which are connected back-to-back in series across the tuning coil. A variable positive voltage is applied to the junction of these diodes, varying the capacity



Normal tuned circuit



Tuned circuit using varactor diodes

of then and so tuning the coil. This arrangement gives somewhat less frequency coverage than the usual variable capacitor, and six wavebands would be necessary to cover the entire HF band instead of the four wavebands that are common today. With this circuit configuration the key component is the variable resistor used for tuning, since there must be no chance of an imperfect contact between the slider and the resis-

tance element since this would cause the stations to jump about when tuning! This system of tuning has already been used for the VHF FM bands, and given suitable components there seems no reason why it should not be used on the short waves.

Well friends, the fire is nearly out and I'm off to bed. Keep an eye open for some of these trends. Goodnight!

LANGUAGE LESSON: Portuguese, Lesson 3

by Fernando Manuel Costa

We will now continue with the verbs corresponding to the auxiliary verb "to be": ser and estar. (see lesson 2). Note that the 3rd person also can be *ela/elas* (f).

<u>ser</u>	present	past tense	future
eu	sou	fui	serei
tu	és	foste	serás
ele	é	foi	será
nós	sonos	fonos	seremos
vós	sois	fostes	sereis
eles	são	foram	serão

<u>estar</u>	present	past tense	future
eu	estou	estive	estarei
tu	estás	estiveste	estarás
ele	está	estive	estará
nós	estamos	estivemos	estaremos
vós	estais	estivestes	estareis
eles	estão	estiveram	estarão

The verb ter (to have) is seen below. Note: for the expressions "there is" and "there are", the verb form há of the verb haver is used.

<u>ter</u>	present	past tense	future
eu	tenho	tive	terei
tu	tens	tiveste	terás
ele	tem	teve	terá
nós	temos	tivemos	teremos
vós	tendes	tivestes	tereis
eles	tem	tiveram	terão

Some phrases:

Ele é DX-ista - he is a DX-er;
A emissora é grande - the broadcasting station is large;
a captação foi boa - the overall merit

was good; O programa foi bem escutado - the program was heard well.

A antena pode ser - an antenna can be:

interior	inside
exterior	outside
bipolar	dipole
omnidirecional	omnidirecional
telecopica	whip

"This" is written *este(n)/esta(f)* in singular and *estes/estas* in plural. "That" is *aquele/aquela* in singular and *aqueles/aquelas* in plural.

As the SINFO code was upside-down in the first lesson, we will repeat it here:

SINFO. S - Potencia, O - Audibilidade.

- 5 - excelente
- 4 - boa
- 3 - pobre or fraca
- 2 - má
- 1 - péssima

I - Interferencia, N - Barulhos Estáticos, F - Fading

- 5 - nenhuma
- 4 - insignificante
- 3 - moderadas
- 2 - severas
- 1 - muito severas

Next month, in the fourth and final lesson, we will deal with how a reception report in Portuguese should be written.

CANTA, AMÉRICA

by Henrik Klementz



Unfortunately the original script for Perú has been lost, so we will have to delete it at present. Still we hope to be able to publish it at a later time.

Articles published by the courtesy of Sveriges DX-Förbund.

Colombia

In Colombia we meet the negroid kind of music for the first time. Along the coastline the people occupy themselves with el porro, which hasn't only an exciting rhythm, but often also very humorous words. Still more popular during the carnivals is la cumbia which is danced with candles in the hands. El pasillo, together with its relative, el bambuco are the utmost popular song and dancing kinds in the highlands, and these can be heard almost every time you are listening to a Colombian radio station. Many HJ-stations have special bambuco-programmes, e.g. Radio Pacifico, Cali, has the very popular "Su Majestad el Bambuco" (His Majesty Bambuco). A very proud and patriot Colombian, Juan Oradi, has said: "Bambuco is the purest expression for Colombian music and the most beautiful symbol of our nationality. Its origin and history are closely connected to the history of our country. Bambuco was a fighting song....and according to the chronicles, the liberty of Perú was sealed with a bambuco in the fight at Ayachuco. Two elements formed the bambuco; the important heritage from the Spanish music gave it its gay guitar playing and the Indian heritage its thousand-year-old melancholy. Hence the gaiety in the sadness which is so characteristic for this rhythm." Recently another sort of music has become popular, el vallenato. It originates from the places around Valledupar in the north. The rhythm of the dance is about equal to the one of el porro. One orchestra which has made

this kind of music popular is Boveay sus vallenatos. The vallenato is a fashion-dance at least in Bogotá and out on the countryside among the poor population. Radio Santa Fé is a typical vallenato station.

Venezuela

Everyone who ever has been listening to Venezuelan radio stations have been fascinated by the music but at the same time been thinking how difficult it is to get a report out of it, if one does not follow the announcer very carefully. Perhaps the most popular kind of music is el joropo, which like many other Latin American dances is a transformation of the European waltz, but in this case it is much syncopated and with a marked rhythm. A typical instrument is the harp, like in the Paraguayan and Chili music. The item equal to "Alexander's Ragtime Band" is without doubt among the joropos "Alma llanera". The foremost orchestra is according to many opinions the one lead by Aldemaro Romero, but as is often the case, one easily collects people to quite a good orchestra when you get some musicians with some Spanish or Negroid blood in their veins.

Very popular just now is the Venezuelan variant of el merengue with "Moliendo café" featuring Hugo Blanco on harp as a typical example. Elsewhere we can find the originally Colombian el merecumbé with its hot rhythm, as in el golpe. The golpe is an example of the mixing of Negroid and Spanish elements - this is noted by the stronger and more accentuated rhythm. Another kind of music, of Spanish and mostly Andalusian flamenco origin, is el polo. More a kind of its own is la guasa which often has a humorous text. We can also find a kind of the Argentine tango, here called tanguito.

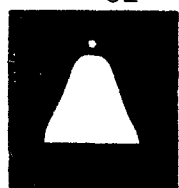
Next time we will move from the South American continent to the islands of the Caribbean starting with Cuba, Haiti, and the Dominican Republic.

The Golden Years of Pirate Radio seem to be over. The Marine Broadcasting Offences Bill by the Postmaster General of the U.K. silenced most of the Offshore stations around Good Old England.

One of them - well known all over the world - was Radio CAROLINE. Mr. Roonan O'Rahilly was the founder and head of Caroline, one of the first British Pirates,

At midnight August 14/15, 1967 the Marine Broadcasting Offences Bill came into force and like many other Pirates, Caroline North signed off.

Radio Caroline South three-and-a-half miles off Frinton-on-Sea was the only offshore station which broke the law at midnight with the top hit "All You Need Is Love" by the Beatles. Johnny Walker and



Radio Caroline

CAROLINE SALES OFFICE - 6 CHESTERFIELD GARDENS - LONDON W.1 - HYDE PARK ST. 21

which started transmissions from the m/v Caroline on Easter Sunday March 28, 1964 at 1400 GMT on the frequency of 1511 kc/s. The first record they beamed into the air was by the Beatles: "I Wanna Hold Your Hand".

Radio ATLANTA on m/v Mi Amigo (used until 1962 by Radio NORD, a Swedish Pirate) started transmissions on May 9, 1964, some 14 miles from the m/v Caroline. After three weeks of broadcasting off Harwich the two stations had more than 7 000 000 listeners in the London area.

In July 1965 Caroline moved to 4 1/2 miles off Douglas (Isle of Man) and Radio Atlanta was now called Radio CAROLINE SOUTH operating on 1187 kc/s with a crystal controlled 50 kW transmitter by Continental Electrics model 317C, and a 10 kW one by the same make was kept at standby. The aerial was 168 ft. tall.

Radio CAROLINE NORTH moved to 1169 kc/s and used two 10 kW transmitters, also by E.C., these were coupled together in a combining unit to the aerial mast.

The London headquarters were the main offices, but there were also offices in New York, Toronto, Paris and Amsterdam.

the Admiral Robbie Dale were the only two DJs who stayed on board. New headquarters were opened in Amsterdam. Radio Caroline South was on the air until March 3 1968 when the vessel was brought into a Dutch port to be overhauled.

Another famous Pirate was Radio LONDON, operating 24 hours a day on a frequency of 1130 kc/s. The m/v Galaxy was anchored 4 miles off the estuary of the Thames with famous DJs like Tony Brandon Pete Drumond, Stewpot, and Tony Blackburn, who said "Radio London is the most professional and best organized of all the offshore stations". Radio London stopped its transmissions on August 14, 1967 at 1400 GMT. The vessel went into Hamburg harbour to be overhauled.

There were many other British Pirates (some on forts and some on ships) broadcasting pop music to the U.K. and to the continent until they were silenced on August 15, 1967.

Radio CITY on Shivering Sands Towers, Radio 3-9-0 on Red Sand Towers, Radio TOWER on Sunk Head Fort, and BRITAIN'S BETTER MUSIC STATION were stations installed on forts from World War II in the Thames estuary. They of course had better conditions and life was

not as hard as on the ship-based Pirates.



Other famous Pirates based on ships were Radio SCOTLAND 2-7-0 operating on 1111 kc/s aboard the Ocean 7, Radio VECTIS CITY on 1124 kc/s, Radio SCOTLAND on the ship Comet on 1124 kc and BRITAIN Radio (until mid 1966 called Radio ENGLAND) broadcasting from the m/v Laissez Faire on 845 kc/s. From January 1967 the ship was used by a Dutch station called Radio 2-2-7 working on 1322 kc 18 hours a day until August 16.

MANX Radio was the only British land-based Pirate, located on the Isle of Man. Stuart Lloyd, Peter O'Neill and Chris Crookall, the three fast-talking Manx announcers were as well known (at least their voices were) to the Manx listeners as Prime Minister Harold Wilson!

Pirate stations aimed at providing good, "middle of the road" "family entertainment". This means that they put out a great variety of music from the wildest beat to Frank Sinatra. Most of the Pirates were local, with many national advertisers, like Palmolive, Colgate, Rothmans, Libbys, Kraft, Frys, SPC Fruits, and international ones like Volkswagen and so on. News were broadcast every hour at times carefully selected not to interfere with the BBC newscasts.

Some units were founded to help the Pirates, and told their members to fight for Free Radio and against the Marine Broadcasting Offences Bill. The most famous of these associations were the BROADSIDE FREE RADIO MOVEMENT in Mount Street, London, and the FREE RADIO ASSOCIATION, which now is an international organisation with more than 100 000 members all over Europe. The FRA offers posters, car-stickers, ball-point-pens, and photos of all the Pirate stations and their DJs to the members.

There are indeed many plans on starting new Pirates on the International Waters, but it seems

to be more difficult to realize these plans on giving Free Radio to the European Peoples.

Thank you very much, Manfred, for this article, and I hope you will not mind although we published it without your pictures, as we have not received them yet. As we have about half the page left, I might continue a little about these pirates.

To start with we have the only land-based pirate, Manx Radio. If I am not wrongly informed, this station has been legalized by the Manx Government, and is thus no longer a pirate. I have heard that some of the pirate owners are trying to get permission to start broadcasting from the Isle of Man, so far without results.

The only still active pirate in the European waters is Radio VERONICA, broadcasting off the Dutch coast on m/v Veronica. The station is operating on 1562 kc/s with a 5 kW transmitter, and has its main office in Hilversum. The Dutch Government has tried to get rid of the station, but the legislative actions have not yet been taken, so the station is still on the air.



Ever since the majority of the pirates ceased broadcasting there have been rumours about new stations coming on the air, so far all these have only been rumours, as none of these stations have yet been heard. However, as could be seen in last AB, there are a lot of pirate stations in the London area, these are however so weak that they are hardly to be heard outside the British Isles. A couple of German pirates have been under construction in German ports for more than two years but not a signal has yet been broadcast.

Then finally we have the New Zealand pirate, Radio HAURAKI, this station has also met with a lot of troubles, but should be on the air still. martti

Last year brought with it as many as six new Colombian stations in the 60 meter band. The stations are Emisoras Nuevo Mundo on approximately 4750 kc, La Voz de Maria or Emisora Kennedy on 4775 kc, Radio Reloj on 4795 kc, Radio Guatapurí on 4905 kc, Radio Internacional on 4975 kc and La Voz del Caqueta on 5042 kc. Some of these stations are heard more or less regularly up here in the north of Europe. They also seem to answer reports quite well. I shall here present the stations in order of frequency, which means that the first one is

4750, Emisoras Nuevo Mundo.

To start with, the situation on this frequency was quite confusing. When Emisoras Nuevo Mundo was noted for the first time in December 1968, it was identified as La Voz del Rio Cauca, which also earlier has made short trips to the short wave band. The verifications, however, were received for Radio Reloj's frequency of 4795 kc. When asking about the matter from CARACOL, the answer was also, that the frequency is 4795 kc. It thus appears that not even CARACOL itself knew anything about the new station. Later on a positive identification for Emisoras Nuevo Mundo was made. This has now been verified both by the station itself and CARACOL, CAdena RADial COlombiana, which is the organisation Emisoras Nuevo Mundo belongs to. The station has been noted very often lately, and as it seems to answer well, it is worth a try to get it. Emisoras Nuevo Mundo should be heard at around 0330 GMT. The address to the station is Aéreo 9291, Bogotá.

4775, La Voz de Maria or Emisora Kennedy

La Voz de Maria was noted for the

first time three years ago by a Swedish DX-er, Börge Eriksson in Borlänge. However, it lasted about two years until the first QSLs arrived, as the station was again heard last year. The QSL has usually consisted of a long letter and a nice pennant, which is pictured here and shows the late John F. Kennedy, former president of the United States. There were no facts about the station in the letter I

received, so if somebody else has more information, do send it to us. However, the station seems to be a cultural one, according to its name and its programmes. The programmes usually consist of classical music. La Voz de Maria also carries a short programme in English just before close down at around 0330 GMT. The frequency of 4775 kc is a very difficult one after 0300 GMT, because there is a very strong Soviet station on 4780 kc. However, with the help of a well directed antenna, the signals may be received more or less clearly. The address to La Voz de Maria is Apartado Aéreo 160-29, Bogotá, Colombia. Signer of the verification is José Vicente Echeverri, S.J., Presidente Asociación. Call letters for the short wave outlet are HJKW.



4795, Radio Reloj.

There were some troubles with the identification also of this station. The first ones to hear it got the identification as "Radio Quince de Bogotá" or "Emisoras Nuevo Mundo". The identification of Radio Reloj de Bogotá has now been heard regularly after the troubles at the beginning. Also this station belongs to the CARACOL network, which can explain the difficulties in getting a correct iden-

Radio Reloj

R R HJCN - 1100 KC - 4.795 Kc. - 1 Kw.

Transmisor de Industria Colombiana de 10 KW de Potencia Antena Vertical de 1/4 de Onda. Planta Transmisora instalada a 8.300 Pies S.N.M. - Temperatura Media de 16° C.

Muchas Gracias por su Reporte de Recepción de 31 de mayo de 1.968

Reciba Ud. un cordial saludo de

Sr. PERTTI AYRAS

Cepc
RADIO RELOJ
DEPARTAMENTO TECNICO



cy of Radio Guatapurí is 4915 kc, where it has frequently been noted at close down around 0500 GMT. The station seems to be a friendly one, as it promised to broadcast a special programme for Finnish reporters. The date for the broadcast was March 16th, but no

BOGOTÁ BARRANQUILLA MEDELLÍN CALI
tification from this station as well as from Emisoras Nuevo Mundo. The QSL-card from Radio Reloj is shown above. It has been received by practically every reporter. As to the technical details I refer to the card. The address to Radio Reloj is the same as for Emisoras Nuevo Mundo, i.e. Apartado Aéreo 9291, Bogotá, Colombia. Call sign for the 4795 kc outlet is HJCN, which also is the call sign for the medium wave outlet on 1100 kc. Radio Reloj is on the air 24 hours a day.

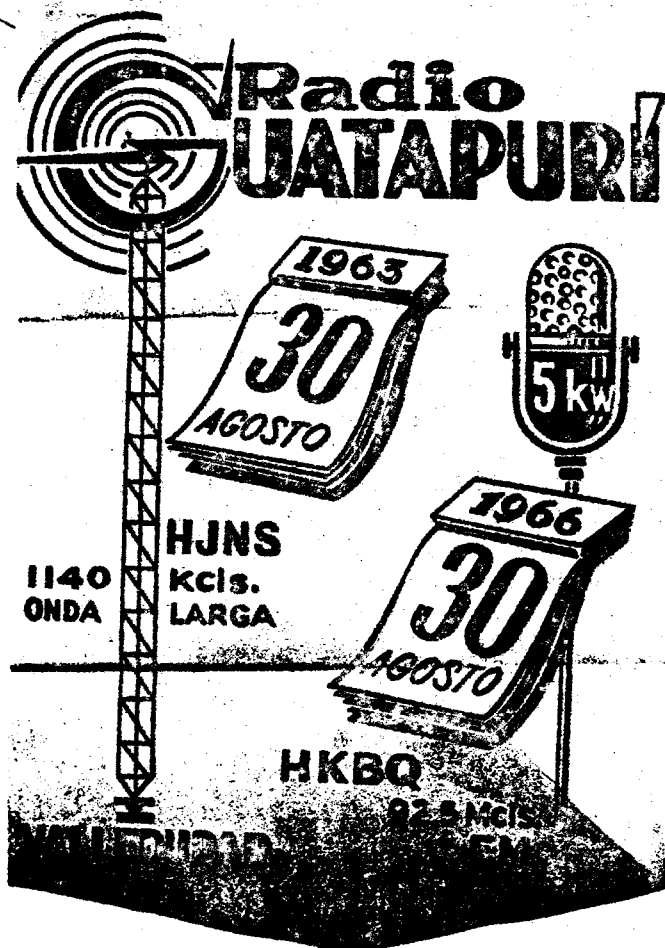
time was mentioned in the letter. The address to Radio Guatapurí is Apartado Aéreo 51, Valledupar. The station broadcasts on medium wave on 1140 kc with the call sign HJNS.

4975, Radio Internacional.

Radio Internacional was first noted on 4977 kc, but slowly it moved to its original frequency of 4975 kc again. On some nights the audibility was very good, and

4905, Radio Guatapurí.

Almost every autumn, DX-ers have been able to note at least one new Colombian station in the 60 meter band. In 1968 it was Radio Guatapurí, in 1967 Ondas del Meta on 4885 kc, in 1966 La Voz del Rio Cauca, in 1965 Radio Villaviciencio on 4875 kc and so on. Radio Guatapurí was noted at the end of November last year for the very first time. The identification was very clear, as the station was mentioned in WRTH 1968 - of course only on medium wave, but still. The verifications have also poured in - as they can pour in from Latin American stations - and the verification also contains a pennant, like the one pictured here. Radio Guatapurí is situated in the town of Valledupar and owned by Sr. Manuel Pineda Bastidas, who also signs the verification. The actual frequen-



C A L I : Ap. Aéreo 4392
Teléfono 86006
BOGOTÁ: Ap. Aéreo 8467
Teléfono 423346
MEDELLÍN: Ap. Aéreo 1431
Teléfono 437028



lo moderno en radio

Cúcuta : Ap. Aéreo 1300

of 4975 kc again. On some nights the audibility was very good, and I am sure that the station got a lot of reports. The reports have, to the best of my knowledge, been verified by letter and post card almost up to 100 per cent. Radio Internacional is situated in a town called Cúcuta, which is the capital of Departamento Norte de Santander. Cúcuta lies only a few kilometers from the Venezuelan border. The letter I received from the station was signed by Yolanda Zanna, Secretaria General. She tells that the station had received reports from Sweden and Norway, but my report was at that time the only one from Finland. However, Radio Internacional has been noted in Finland also on its medium wave frequency of 1213 kc (nominally 1210 kc). Radio Internacional, and 72 other Colombian stations, belong to the network TODELAR DE COLOMBIA. The network also has affiliate stations in the neighbouring countries Venezuela and Ecuador. The announcements of this chain are wellknown: "Somos Todelar, lo moderno en radio" and "Somos Todelar, somos profesionales". I am quite sure that Radio Internacional will be heard again next summer. The station's call sign is HJJC, and the address is Apartado Aéreo 1300, Cúcuta, Colombia.

5040, La Voz de Caqueta.

Little is known about this station, but one QSL is known. Last year La Voz de Caqueta was noted for a short period on 5042 kc, when the transmitter crystal was drifting - this according to the verification letter. The crystal was soon fixed, and La Voz de Caqueta could not be heard any more. This, as a matter of fact, is a rather common story, which sometimes gives one a possibility

to get a very rare station - if one has luck. The nominal frequency of La Voz de Caqueta actually is 5035 kc, and according to WRTH 1969 the station is now inactive. This does of course not definitely mean that the station is not on the air. Call sign is HJJC and the address simply Florencia, Colombia.

And that brings us to an end of this short survey of new Colombian stations noted last year. As I have stated a couple of times above, some of these stations may be heard again this year, and as they also seem to answer reception reports, it should be clear that they are worth a try, when you hear them.

As to Colombian stations in the 60 mb in general, very many of them are heard frequently with very good signals. Some of them are also good QSL-ers. The following Colombian stations in the 60 mb have been reported frequently:

4855 Radio Neiva
4875 Radio Villavicencio
4885 Ondas del Meta
4945 Radio Colosal
4955 Radio Nacional
4965 Radio Santa Fé
5020 Transmisora Caldas (frequency varying)
5075 Radio Sutatenza
5095 Radio Sutatenza

Then we have some stations that are not so frequently reported, such as

4785 Ecos del Combeima
4825 Radio Nariño
4845 Radio Bucaramanga

There are still a few more Colombians on 60 meters, and as I said above, there generally comes at least one more every year.

NEW MEMBERS

It is our great pleasure to announce that the following DX-ers have become members of Finlands DX-Club International:

138. Ulrich Lauruschkus, Burgsteinfurt, West Germany.
139. Bud Nation, Mill Valley, California, USA.
140. Peter Ackermann, Frankfurt,

IN THE MAIL

Hello again, everybody. It is now quite a long time since I wrote this section, so I hope I haven't forgotten how to do it. This time there apparently are not so very many letters, but I will do my best to fill these pages with interesting comments from both members and myself. I think I shall start with the letters received from our three new members. If I take them in the order of membership numbers, we first have

ULRICH LAURUSCHKUS, West Germany: Thanks for the membership fee, Ulrich, it's quite OK, and you will receive every copy of Attention B for the year to come. That is, if the mail is delivered OK - it has happened that copies of AB have been returned, but that does not happen very often, except for those going to East Germany. They are nowadays returned even if they are in a sealed envelope. Strange, isn't it? Anyway, I hope that you shall have some fun with AB, and find it useful for you in the hobby.

BUD NATION, USA: "I have read over the copy of AB that you kindly sent me, and am quite impressed by the friendly and very personal text of it. So I have decided to become a member of Finlands DX-Club International, and enclosed is \$ 3.00 for one year subscription to AB." - Thanks, Bud, for the nice words about AB. We do try to keep the style of AB friendly and personal, as long as it is possible - as you see from the front page, our slogan is "The Friendly DX-

West Germany.

A hearty welcome to all three of you. Your letters will be included in the "In the Mail" section below. We do hope that you shall be able to take an active part in the work of FDXCI by sending us your letters, DX-hints, articles and so on in the future.

by Eric Gagneur

"Club". We and all our members do try to live up to this. By the way, Bud, for 3 dollars we can send AB only by surface mail, which means that you will get it one or two months late - won't you consider the 2 dollars extra in order to get the bulletin by air mail? I'm sure you would have more use of AB in that way. Bud continues his letter: "The receiver I use is a very old (28 years) Hammarlund HQ-120, and for an antenna I hang a 40 ft. long piece of wire hanging out of my apartment window. With this setup I have received 23 QSLs or verification letters and have 20 countries verified. By the way, I have noticed a kind of controversy about the QSLing policy of Radio Cairo in the UAR. To this I have to say that I received an attractive QSL, extensive program schedules, and a personally typed letter from the director of English language programs from Radio Cairo about two months ago, for a report sent February 68. However, the station that I have found very difficult to get a verification out of is, believe it or not, the BBC. I have sent 3 separate reception reports to the BBC, and have received 3 very nice, but useless, post cards of London. The last two reports I sent, I included a paragraph explaining exactly that I wanted a technical verification, but still got just a post card and program schedule. Do you have any idea why the BBC should do this, or what I might try next?" - Well, that was quite much. Re Radio Cairo, there should not

generally be any difficulties in getting an adequate QSL. However, we must bear in mind that the situation in Middle East now isn't completely OK, so this may have something to do with their QSL-policy. I'd say that those who do not get a QSL from Radio Cairo at once, try another time, and I'm sure it will come a time when a QSL drops in. As to the BBC, I understand your standpoint, but on the other hand I must say that I also understand the standpoint of the BBC. I have here a QSL-card from the BBC, carrying the following text: "Thank you for your report upon the reception of our transmissions which is in accordance with our schedule. I hope that you will continue to enjoy our programmes." Signed Chief Engineer. I am afraid that this is all we can get from the BBC. According to the station it does not intend to change its QSL-policy. In the first programme bulletin issued by Radio Finland this year, I wrote among other things the following: "I have no exact figures, but I think that DX-ers account for less than one per cent of all shortwave listeners." The BBC has millions of listeners, so why should they give a better service to us DX-ers? At this very moment there are just two things we can do with the QSL from the BBC: Either we accept it as it is, or we don't. In the latter case we can of course wait and see if the BBC changes its QSL-policy, but one thing we shouldn't do is to start running some sort of campaign against the station. We can't win anything with that, and we should let the DX-organizations try to have the BBC to change its policy. For many years we here in Finland have had the general rule, that we accept a QSL as a QSL as long as the QSL refers to a report the station has received. I think that this is a very good rule, and we are going to keep it like this here in Finland. This was quite a long answer to you, Bud, and I hope that you see my standpoint in this matter.

PETER ACKERMANN, West Germany: "I am 23 years old and have listened to shortwave stations since January 1969, using a Grundig Satellit 6000 Transistor with built-in antenna. The first QSL-card came from CICR, Geneve (for a report on 7210 kc in January). The next QSLs came from Rumania, Japan, Afghanistan and Radio Nederland - Bonaire. I have sent reports to many other stations, but no answers so far." - Thanks for your letter, Peter, and good luck with the other stations you have reported. You will certainly find that you will not get a verification from every station with the first attempt, but it is just to go on sending reception reports. Some day you will have the verification. Most of the stations carrying external services do QSL very well, but there are of course exceptions. I do hope that you shall have use of your AB in your future DX-ing.

ROBERT BUNDY, Eastern Caroline Island: "I don't know how valuable my report to 'On the Bands' will be as you don't have many members from this area." - Well, as far as I know, you are the only member we have in that area. One of FDXC's members is in Australia right now, but he will probably come back home soon. But this should not be a reason not to send contributions for OB - maybe we get more members from your area later on. On the other hand, you may be able to send us some news about stations in that area, which would be of very great use to other members. I hope that you will find the news from this part of the world of use for you. So, let your letters drop in here. As to the late delivery of AB, that is something we cannot do anything about - the distance is remarkable. We shall hope, however, that it will not take too long time for AB to reach you.

ALBERT KOSHOFFEL, West Germany: "One night I wanted to stay up in order to make some mediumwave

loggings, but soon I fell asleep while listening to a piece of sad music. The other night I wanted to get up at midnight but sleeping like a top, I did not hear the ringing of the alarm-clock, and thus got a couple of bad dreams instead of the loggings." - Well, that can happen to anybody - personally I haven't a chance to keep awake after midnight, so my DX-ing is completely down at the moment. It is of course possible that the spring has something to do with this - or rather the long, dark winter. Now as the sun will shine again, there is always the possibility that one gets some more energy, and has a chance to sit up some hours at night listening to that wonderful Latin American music. By the way, when making DX at night, one should avoid to listen to good music, as that is one of the best ways to become sleepy. Anyway, Albert make a new try, and you shall see that you will succeed sooner or later. And it's now time to change over to the Latin American stations!

BERNARD LAW, England: Like Albert Kosnopfel, Bernard is one of the regular listeners to our programmes on Radio Finland (there are many more regular listeners among the members, too). I am glad to hear that the 19 mb outlet now comes through OK - although it may have some breaks every now and then, as it is a very old transmitter. But the 31 mb outlet seems to be quite OK now, too. As to 11805 kc, Bernard, I'd say you make a DX-catch if you hear it. 15 kW is nothing in the overcrowded 25 mb. I don't think anybody hears it. I'm looking forward very much to see you here in Finland in the summer, Bernard, and only the weather keeps smiling, I think that the few days extra will be well worth spending here. The FBC folder No. 2 is under preparation - I guess they now wait just for my contribution to it. Glad to hear that you like Letterbox - I think it will be improved very much in

the future, when all of us get the routine with it OK. Keep listening.

DENNIS PARKER, England: "I for one am in favour of the special Red Cross stamps. I'm only a small collector, but nevertheless I would like to add these very nice and very special stamps to my collection. Would it be possible to have mint sets sent to club members if the member would be prepared to pay for them." - Yes, the stamps are actually very nice, and we try to put special stamps on the envelopes every now and then. Of course this is not always possible, but we'll do it when we can. On the other hand, there is that extra cost for the Red Cross stamps, so it is not possible to use them very often. As to the mint stamps, I'm sure it could be arranged. They can well be paid to our representatives, but I'm afraid we have to take some extra because of the extra cost when sending them by letter. So, if there are others who are interested in mint Finnish stamps, tell it in your next letter, and we shall see how we can arrange the matter. There are also other beautiful Finnish stamps, which may be of interest to the collector.

JOHN M. BARTH, USA: "Have two receivers here, number 1 being a little Drake SW4A and the other a Hallicrafters Model S-118. Antenna is a 60' long wire, 8' high, running North/South and seeming to favor Africa and Europe. The SW4A is a fine little receiver; you can spin the main tuning knob with one finger and you can dial any frequency covered direct down to the last kHz. - It has a few minor faults (nothing is perfect). The .2 MHz band covering from .150 to .500 is useless to me; the only thing I get on it is the Newark Airport tower 13 miles away. The 6.0 MHz band covering from 5.950 to 6.550 MHz fails to cover anything over the 49 mb, where many of the smaller stations are. Also the band width of 5 kHz at 6

dB sometimes makes you wish you could adjust it when you have stations with strong signals on either side of the desired station. - It is very stable, and once you use it you get spoiled for anything else." - Yes, the Drake SW4A is a very special receiver, although we, too, have about the same experiences as you. We use 10 crystals in our receiver - it is owned by the club - which we change when trying another band. You can get a loudspeaker with a built-in Q-multiplier, which should make listening better. A crystal filter might also be good to have, but we have so far not tried it. Do write us a little more often, John. It is always nice to hear from you.

JOE COHEN, England: "This is old Joe again. In answer to Eric and Martti regarding DX-programmes and shortwave listeners, may I speak of a meeting I had with a BBC engineer, who I would have thought knew of DX. But NO he never heard of a DXer, so we must not get mad at people who think DXers are sick people. Me for instance do not own a TV set so if I got mad at people asking me about last night's show or they at me, I would be fighting all the time." - Yes, it's true, not even the biggest stations' staff always knows what a DX-er is. "Old Joe says let's not make people think we are strange creatures, and we will not get moans in AB." - Thanks for your remarks, Joe, and do write in again.

GLYN MORGAN, UK: "Lately I have become interested in RTTY. This interest came about through the Radio Nederland "Allround DX-ers course". I have studied the circuit of a converter for use with a teleprinter and feel certain that I can cope with the construction and operation of this, but I am not sure if the receiver is quite good enough." Well, I didn't know one could be an RTTY DX-er - personally I only find the RTTY troublesome and disturbing.

JO METSEMAKERS, Holland: "You did not hear from me because I went into the army on November 11, 1968. I have not been able to do any DX there for I did not have a receiver there. I got my military drivers license, and I will probably go to Germany in a few weeks to drive a big truck." - Yes, that's the usual thing when people go to the army, no chance to make any sort of DX. I hope, however, that you will stay in touch with us, Jo, your letters will be as welcome as ever.

DAVID CRYSTAL, Israel: If you have a chance to visit the DX-Parliament in Sweden in June, I'd suggest you do so, because there you have a good chance to meet many Scandinavian DX-ers and also many representatives for radio stations. And a trip to Finland after that might also be a good thing to do. We would be happy to see you here.

TOM ARMSTRONG, Canada: Good to hear that you are back south to the civilization after your five month trip to the north. Well, I think Vancouver is already north up enough, so going further must be quite hard. We are looking forward to hearing from you again as you are home now.

W.J. THORPE, England: To be a "beginner" in DX-ing is no excuse for not sending contributions to 'On the Bands'. Every sort of contribution is welcome, and no hint shall be considered unqualified for OB. So you will let them come, won't you.

Well, that was the In the Mail section for this time. I hope that you will let us have many more letters next month. There is now just one minor thing that must be added here. That is, that there will not be a MW section this time, as the letter with the contributions to the MW editor went astray in the mail. If the letter will be found, some of the contributions there will be used next time. Let us hope that something like this does not happen anymore. We regret!

QSLs RECEIVED

compiled by Martti Rinne

Austrian Army	6255	c	2w	rp	DP	KZ	AFNTaiwan	1560	c	19d	RB
R Sofia	9700	cls	6w			AD	R Baku	4958	1 c	6w	AP
R Prague	many		3w			DP	R Tashkent	11925	2c s	24w	DP
R Denmark	15165	c s	39d	rp		RB	VoVietnam	9525	1	6m	SL
R Finland	254	c s	2m			AK	-	15018	f l		MP
-	many	c s	10w		DLM	AK					
ORTF	15190	cls	3m		DLM		R Australia	9580	c	2m	DLM DP
DW	many	c	5w		SLF	AD	-	11710	c	2m	AK DLM DP
D-funk	1268	2c	3w			AD	-	11740	c	10w	AD AK
Hess. Rf	593	c	11d			AK	ABC Brisbane	4920	c	5m	rp SH DR
Westd. Rf	many	c s	17d			AK	ABC Sydney	6090	c	2w	rp RB
RIAS	6005	c	1w			AD	R Tarawa	4912.5	1	9w	rp SH RB
AFN	many	6c s	4d		AK	DP	KORL Hawaii	650	c	1m	rp JB
RBI	many		4w			DP	WXLE Marsh.I.	1385	persl	19d	rp RB
BBC	15260	c	3d			AP	ABC P Moresby	4890	c		MP
Pyrgos BS	1433	c p	3w	rp		KZ					
R Nederland	many	c	16d	AD	DLM	DP	CBC	9625	c	32d	AK DP
R Budapest	7100	c	3w			AD	-	17820	c	10w	AK AP
TWR	many	c	2m		AP	DR	CBAF Moncton	1300			SB
R Norway	7210	c s	23d		DP	SB	CBW Winnipeg	990			SB
Polskie R	1502	c s	5w			AK	CFCF Montreal				SB
-	many	c l	6w		DLM	DP	CFRX Toronto	6070			SB
R Portugal	6025	2c	6w		SLF	BT	CFCX Montreal	6005	c	8m	DLM
					AD	AK	CJCX Yorktown	940	c	8m	JB
R Bucharest	many	c l	6w		SLF	DP	CJNB	1050	l	8m	JB
RNE Madrid	584	c s	1w			AD	R Greenland		f		SB
R Sweden	many	c s	4d		AK	DP	WWV				SB
SBC	many	c	9d			AK	WINB	17720	cfs	5m	BT
ICRC	7210	c	9d			DP	UN Radio NY				SB
R Vilnius	11775	2c b	6w			DP	KAKE 1240	1 5d	KALL 910	c 8m	JB
R Beograd	many	c	2m		SLF	AD	KBIB 1560	1 7d	KDOM 1580	1 8d	JB
R De Hoop	2316	c	2w	rp		KZ	KELO 1320	c 15d	KFJZ 1270	c 18d	JB
							KHMO 1070	1 3w	KLGA 1600	c 4d	JB
BEC Ascension	9600	cls	3m			AD	KLMS 1480	1 4d	KMA 960	c 5d	JB
RNE Canarias	11800	c p	17d	rp	CH	DP	KMNS 620	1 3d	KOAM 860	c 8d	JB
R Dahomey	4870	c	2w	rp		RWF	KSAL 1150	1 15d	KSIS 1050	1 10d	JB
R Cairo	12005	c s	4m			AK	KSTP 1500	c 6d	KSTT 1170	1 4d	JB
ELWA	11950	c s	10w	rp		RB	KSUM 1370	1 4d	KTHT 790	1 9w	JB
R Mali	4835	c	1m	rp		DR	KGYN 1210	c 2m	WBAY 1360	c 2d	JB
VOA Tangiers	25880	c	1m		DLM		WEAQ 790	1 25d	WGN 720	c 15d	JB
RCL Mocambique	4925	c	9d		CH	KJ	WIBA 1310	c 4d	WOC 1420	c 5w	JB
R Nigeria	15365	c	2w		SLF		WOI 640	c 8d	WPTR 1540	c 11w	JB
DW Kigali	15380	c s	25d			AK	WSUI 910	1 4d	WWCA 1270	c 8d	JB
R RSA	17805	bcs	8w	rp	DP	RB					
R Togo	5047	c	3w			KJ	4VEJ	11835	f l	1m	rp MR
							R Nederland	15220	c	11m	SLF
R Kabul	11790	c	3w			AP					
R Peking	31 mb	c				HA	R Argentina	11710	c	2m	AD AK
AIR	7215	c	1m		SLF		Em Los Andes	4775	1 p		PA
RRI	9585	c p	6w			DP	R Pioneira T	4885	1 p	9w	ms JB
R Iran	11690	bcs	4w			AK	R Rio Mar	9695	c	1m	CW
Kol Yisrael	9725	c	2m			AK	R 9 de Julho	9620	2c		THE
R Japan	11910	c	2w			AP	LV Chile	9690			MP
-	15300	bcs	6w			AD	R Guatapurí	4905	1 p		PA
-	15445	cls	3w		DLM		R Reloj	4795	c	3m	SL
-	17825	cls	3w	AK	DLM	AP	LV Centro	6095	c l		PA
R Amman	9560	c	1m	rp		DP	HCJB	17880	c		HA
VoFree Korea	15155	c			CH		R Demerara	3265	c	2m	rp DR
AFKN	680	c	9d			RB	Ecos Torbes	4980	p	1m	BLF
Kuwait BS	11920	bcs	1m		DP	KZ	R Juventud	4900	c	2w	CW
-	17750	c	23d	rp	RB	SB	R Yaracuy	4940	c	2m	AD
Maldiva IDS	4740	l	5m			SL					
R Qatar	9570	l	3w		THE	CW					

CREDITS and COMMENTS, see next page.

I would also like to clear up a few misunderstandings which seem to have occurred. To start with I have a letter from Donald L Mahler in the United States in which he asks if he has violated any rules as I gave him two countries less than he thought himself. The differences in our countings are due to two things, firstly we do not count the Soviet republics as separate countries as you had done for Ukraina and secondly we do not count but broadcasting stations, e.g. Shannon Airradio is not counted, and thus you cannot get a country point for Ireland. Next we have a note from Allen Dean, England. The points you had calculated for yourself were a bit too high, as each station gives a station point only once, i.e. when you receive the first QSL from the station. Thus you

cannot get a new point every time you report a certain station, it is the same thing with the country points, one country "scores" only once.

Then to conclude this month's QSL corner, we have some signers of verifications, these are listed in order to give the members a possibility to address their letters to the right person, this especially concerns "difficult" stations, like many of the South and Central American ones.

RNE Canarias - Dir. J. de Rojas Mora, RRI Djakarta - Mrs. Susie QSL Manager, Kuwait BS - A. Jafor Asst. Under Secr. Broadcasting Affairs, R Guatapurí - Manuel Pineda Bastidas, he is also the owner of the station, Rdif Venezuela - Raul Varéla.

CREDITS:

AD - Allen Dean	England	KJ - Kaj Bredahl Jørgensen	Denmark
AK - Albert Kosnopfel	W. Germany	KZ - Kurt D Zscherp	W. Germany
AP - Arnold Petric	Austria	MR - Martti Rinne	Finland
BLF - Björn Lundberg	Finland	PÅ - Pertti Äyräs	Finland
BT - Bill Thorpe	England	RB - Robert Bundy	Truk, ECI, USA
CH - Christer Herlin	Finland	RWF - Robert W Fisher	USA
CW - Christer Wilkman	Finland	SB - Scott Brockway	USA
DLM - Donald L Mahler	USA	SL - Sten Lundberg	Sweden
DP - Dennis Parker	England	SLF - Siv Lundberg	Finland
DR - Donland W Rahmlow	USA	SH - Seppo Halinen	Finland
HA - Henry Ahlfors	Finland	THE - Tor-Henrik Ekblom	Denmark
JB - Jack Bacon Jr	USA	MP - Max Paetau	Finland

ABBREVIATIONS: b - book(let)s, c - card, 2d - 2 days, f - folder, l - letter, 1m - 1 month, ms - mint set sent with report, p - pennant, rp - return postage included, s - schedule, 3w - 3 weeks.

There will be no League this time, but still I hope that those members who haven't yet informed me about their equipment would do that by next stopdate. Thank you!

ON THE BANDS - Pacific

compiled by Robert Bundy

EUROPE

6100	YUGOSLAVIA: R Beograd - IS, s/on, news	E	52332	1830
9620	YUGOSLAVIA: R Beograd - s/on, jamming	F	31331	1930
9635	SWEDEN: R Sweden - R 2035, E 2045		43443	2035
9645	VATICAN: Vatican R - Latin chants		54444	2000
9700	BULGARIA: R Sofia - West African Sce	E	54444	2000
21540	EAST GERMANY: RBI	E	34343	1127
21650	WEST GERMANY: DW - IS & Persian Sce		53533	0945
21730	NORWAY: R Norway	E	45434	0815

AFRICA

9760	GHANA: R Ghana - NA Sce 2000-2100	E	54344	2000
11895	ETHIOPIA: ETLF - West African Sce	E	53343	0445
11950	LIBERIA: ELWA - BBC news & Back to the Bible	E	53443	2000

ASIA			
6175	MALAYSIA: Voice of Malaysia	Malayan See	54343 1020
9009	ISRAEL: Kol Yisrael - news	E	42342 2015
11785	USSR: R Yerevan - ID in E	R	55344 0330
11850	MONGOLIA: R Ulan Bator - News of Mongolia	E	52343 2212
21590	PAKISTAN: R Pakistan - E news at 0810	H	54444 0745

PACIFIC			
3230	FIJI ISLANDS: R Suva - Adv. for Mum	E	44333 0925
3233	PAPUA: R Milne Bay - ann in E		44344 0920
3245	PAPUA: R Kerema - pop music		44344 0915
11705	NEW ZEALAND: RNZ - pop music	E	42442 0945
15425	AUSTRALIA: ABC Domestic See from Perth	E	54454 0650

NORTH AMERICA			
9625	CANADA: CBC - Listeners' Corner	E	54344 0735
15245	USA: KGEI - Sp to 0430, E to s/off 0500		44344 0410

CENTRAL AMERICA			
15350	NETHERLANDS ANTILLES: TWR	S	44434 2230

ON THE BANDS - North America compiled by Martti Rinne

EUROPE			
4865	AZORES: Em Regional	DR	P 45334 2150
6155	AUSTRIA: ÖRF - multilingual ID	DLM	JB 34544 0500
9610	USSR: R Kiev	DLM	E 44544 0430
9670A	POLAND: Polskie Radio	DLM	E 35443 1840
9760	SPAIN: RNE	DLM	E 44444 0200
11870	POLAND: Polskie Radio - Sat only	DLM	E 54554 0315
11890	EAST GERMANY: RBI	DLM	E 54554 0230
17850	RUMANIA: R Bucharest	DLM	E 44432 1300
25610	HOLLAND: R Nederland	DLM	EDS 45342 1700

AFRICA			
4865	MALI: R Bamako	DR	F 45333 2230
4870	DAHOMEY: Rdif Dahomey	RWF	F 44444 0600
4890	SENEGAL: R Dakar	JB	F 33433 0615
4940	IVORY COAST: R Abidjan	JB	F 44433 0615
9600	ASCENSION: BBC - Atlantic Relay	DLM	E,F 44554 0425
11810	ETHIOPIA: ETLF	DR	E 34333 1932

ASIA & PACIFIC			
4890	PAPUA: ABC P Moresby	JB	E 45544 0830
9009	ISRAEL: Kol Yisrael - new test	DLM	DR E 54554 0400
9009	ISRAEL: Kol Yisrael // 9725	DLM	E 34554 2045
11640	PAKISTAN: R Pakistan Dacca	RWF	E 34343 1500
15125	TAIWAN: Vo Free China	DR	E 33333 0200
15430	SOUTH KOREA: Vo Free Korea - S at 0230	DR	E 34333 0300
16320	NORTH KOREA: R Pyongyang	DR	S 35433 0100

CENTRAL AMERICA			
2410	HAITI: R Lumiere	DR	F 33343 0221
2450	HAITI: 4VEH	DR	E 43333 0130
3280	GRENADA: WIBS	JB	E 23432 0200
3300	BRITISH HONDURAS: R Belize	JB	E 33432 0150
3375	DOMINICAN REPUBLIC: R Exitos	DR	JB S 44544 0150
3380	GUATEMALA: R Esc. Radiofonicas	JB	S 33333 0215
4940	DOMINICAN REPUBLIC: R Mil - s/off	JKA	JB S 44544 -0500
5010	DOMINICAN REPUBLIC: R Cristal - 0430-	JB	S 33432 -0500
6060	HONDURAS: R Centro	JKA	S 43443 1215
6180	GUATEMALA: La Voz de Guatemala - s/off	JB	S 44544 -0600
11875	NICARAGUA: R Nacional	JKA	S 44554 0330

SOUTH AMERICA

3325	VENEZUELA: R Monagas	DR	JB	S	44444	0100
4675	ECUADOR: R Nacional Espejo		JB	S	34543	0300
4735	COLOMBIA: R Reloj		JB	S	33433	0230
4765	BRAZIL: R Sociedad de Feira de Santana		JB	P	43433	0845
4840	VENEZUELA: R Valera		JB	S	33433	0230
4875	BRAZIL: R Jornal do Brasil		JB	P	33433	0920
4885	COLOMBIA: Ondas del Meta		JB	S	44544	-0510
4890	VENEZUELA: Rdif Venezuela		JB	S	44444	-0440
4885	BRAZIL: R Pioneira de Teresina (sorry)		JB	P	33433	0825
4920	VENEZUELA: R Caracas		JB	S	33433	0445
4945	COLOMBIA: R Colosal		JB	S	45544	0530
4955	COLOMBIA: R Nacional		JB	S	44544	0500
4980	VENEZUELA: Ecos del Torbes		JB	S	55544	0200
4990	VENEZUELA: R Barquisimeto		JB	S	44544	0210
5020	COLOMBIA: Transmisoras Caldas		JB	S	23432	0430
5965	BRAZIL: R Guaiba		JKA	P	43443	2400

IN THE NEWS

compiled by Martti Rinne

ANDORRA: After the success of the Caroline revival hour broadcast on March 2, Radio Andorra is to begin daily transmissions in English some time in the next 2 - 3 months. The transmissions will be beamed to the U.K. daily from 0000-0400 GMT on 701 kc. Test transmissions are under way now, reports are being asked for. AD

ARGENTINA: English transmissions from Radio Argentina are on the air as follows: To Europe: 2300-2400 on 11710 kc, to the East of NA: 0300-0400 on 9690 (also at 0300-0330 on 11780 and 6090), to the West of NA 0600-0700 on same as above (all three), to the Far East: as E of NA, to the North Pacific: same as W of NA. JT

AUSTRIA: Radio Austria is on the air at 1400-1600 to Asia on 17780 (replacing 17775) and at 0000-0200 to Central America on 15385 (replacing 15380). All transmissions are daily. AK

BRAZIL: According to Brazilian DX Club, Radio Nacional in Rio has broadcast daily, except Sundays, in Spanish to Latin America 0115 to 0200 on 9720 and 11795 kc. Programme in English planned for

near future.

JKA

DAHOMEY: Schedule just received reads: Mon-Fri 0515-0700, 1130-1300 (Wed -1315) and 1630-2200, Sat 0515-0700 and 1200-2300, Sun 0700-2200, all on 4870, 7190 and 1475 kc. RWF

DOMINICAN REPUBLIC: Radio Mil has a program for foreign listeners at 0345-0400. JKA

ECUADOR: Radio Nacional, 4940 kc, offers station pennant to foreign listeners reporting "Así es el Ecuador" at 0400-0430. JKA

NICARAGUA: Radio Nacional heard sporadically with good signal on 11875 kc, also announces 5935 kc 620 kc and 92 Me FM. JKA

TURKEY: Radio Ankara is said to be broadcasting its foreign sces on 15160 at 2100-2230. AK

USSR: Radio Tashkent is requesting reports, they have English at 1200 and 1400 on 9600 and 11925 kc. Address: R Tashkent, Khorezmskaya 49, Tashkent, Uzbek SSR, USSR. RWF adds: "write in English, Mrs. Tadjieva's English is better than that of most Americans, including mine!" RWF

SORRY: R Nacional, Nicaragua noted recently in Sweden 5935. ed

CREDITS for both On the Bands (Europe & NA) and for In the News

AD - Allen Dean, England; AK - Albert Kosnopfel, West Germany; AP - Arnold Petric, Austria; CH - Christer Herlin, Finland; CW - Christer Wilkman, Finland; DLM - Donald L. Mahler, USA; DP -- Dennis Parker, England; DR - Donald W. Rahmlow, USA; DS - Dieter Skolaster, West Germany; JB - Jack Bacon Jr., USA; JKA - Jack K. Adams, USA; JT - John Taylor, USA; KJ - Kaj Bredahl Jørgensen, Denmark; RV - Raimo Vuojärvi, Finland, and TO - Terho Vuojärvi, Finland.

Hope this system won't disturb you very much, but there was not space enough after On the Bands - Europe.

ON THE BANDS - Europe

compiled by Hans Lunkka

EUROPE

4865	AZORES: Emisora Regional	CH	P	4	3	2030			
5000	ITALY: IBF calls in Italian, French & Eng.	KJ		54344		1745			
5930	CZECHOSLOVAKIA: R Prague	AD	E	4	4	0100			
5975	GREAT BRITAIN: BBC CBC relay	AD	AK	G	54444	1830			
5990	SWEDEN: R Sweden		AD	E	3	2	0030		
6005	WEST GERMANY: RIAS		AD	G	4	4	1700		
6010	ITALY: RAI		AD	E	4	4	0100		
6010	BELGIUM: RTB	DP	AD	F	4	4	1445		
6020	HOLLAND: R Netherland		AD	DP	E	4	4	1430	
6025	PORTUGAL: Voice of the West	AK	AD	DP	TO	E	4	4	0200
6055	CZECHOSLOVAKIA: R Prague		DP	E	44444		0700		
6080	EAST GERMANY: RBI		AD	DP	E	2	2	1745	
6085	WEST GERMANY: BR		AD	G	4	3	0600		
6120	WEST GERMANY: D Welle		AD	DP	G	2	2	0145	
6125	BELGIUM: RTB		TO	E	3	2	2210		
6130	SWITZERLAND: SBC		AD	E	2	2	0150		
6135	POLAND: R Warsaw		AK	E	33433		1930		
6140	SPAIN: R Nacional		AK	S	54444		1945		
6145	VATICAN STATE: Vatican R		AD	E	4	4	0050		
6190	WEST GERMANY: R Bremen news		KJ	G	54554		1200		
6195A	ALBANIA: R Tirana		AD	E	4	4	0130		
6234	HUNGARY: R Budapest		TO	E	5	4	0030		
6255	AUSTRIA: Austrian Army		DP	G	54344		1830		
7040	AUSTRIA: OE3XNB Austrian Army on Sundays		AK	G	33433		1045		
7175	RUMANIA: R Bucarest		AK	F	44444		2030		
9505A	ALBANIA: R Tirana		AD	DP	E	3	3	0150	
9510	RUMANIA: R Bucarest			DP	E	44444		1930	
9520	DENMARK: R Denmark "DX-Window"		AP	TO	E	5	4	1015	
9535	SWITZERLAND: SBC		AD	DP	E	2	2	0130	
9550	FINLAND: FBC			AK	E	32432		1800	
9575	CZECHOSLOVAKIA: R Prague			DP	E	34434		0700	
9585	FRANCE: ORTF			DP	F	34433		0700	
9625	SWEDEN: R Sweden			DP	E	55444		1100	
9660	BULGARIA: R Sofia			DP	E	54444		1930	
9660	USSR: R Kiev			AD	E	3	3	0030	
9680	PORTUGAL: Em Nacional			AD	E	2	2	0345	
9730	EAST GERMANY: RBI			DP	E	44444		1730	
9760	SWEDEN: R Sweden			AK	E	54444		1230	
11705	VATICAN STATE: Vatican R			AK	E	33333		1710	
11715	SWITZERLAND: SBC			AD	E	2	2	0215	
11775	SWITZERLAND: SBC			AK	E	55444		0915	
11910	HUNGARY: R Budapest			AP	G	53433		0900	
11960	CZECHOSLOVAKIA: R Prague			DP	E	44444		1200	
15025	CLANDESTINE: R Euzkadi			AK		35433		2055	
15120	VATICAN STATE: Vatican R			AD	F	5	4	1430	
15160	FRANCE: ORTF			AK	F	44444		2000	
15185	FINLAND: FBC			AK	E	55555		1800	
15240	SWEDEN: R Sweden			AD	E	4	4	1400	
15240	YUGOSLAVIA: R Belgrade			DP	E	44444		1530	
15250	RUMANIA: R Bucarest		AP	DP	E	43333		1300	
17850	RUMANIA: R Bucarest			DP	E	33333		1500	
17895	PORTUGAL: Voice of the West			DP	E	34333		0845	
21495	PORTUGAL: Voice of the West		AD	DP	E	4	4	1420	
21700	PORTUGAL: Em Nacional			AD	P	3	3	1345	

AFRICA

4795	ANGOLA: R Comercial	DS	P	fair		1830
4839	CONGO: R Bukavu	CH	F	4	3	1800
4925	MOZAMBIQUE: RCM	DS	KJ	P	good	1730
4722	CAPE VERDE ISLANDS: R Cl Mindelo	CW	P	3	3	2140

4980	GHANA: R Accra	CW	E	3	3	2215
5047	TOGO: Lomé	DP	F	35343		0530-
6080	ALGERIA: R Algier	AD	F	3	3	2100
9475	UAR: R Cairo	DP	AK	F	44444	1945
11655	UAR: R Cairo		AK	A	45444	1730
11800	CANARY ISLANDS: RNE Islas Canar ias		TO	S	3	3 2045
11835	ALGERIA: R TV Algerienne	AP CH	KJ	F	3	3 1300
11860	ASCENSION ISL: BBC Atlantic Relay		AD	F	4	4 0430
11875	SOUTH AFRICA: R RSA	AD CH	DP	E	2	2 0145
11910	ETHIOPIA: RVOG		CH	E	4	4 1955
12005	UAR: R Cairo	AK DP	TO	G	45444	2100
15190	CONGO (REP): ORTF Brazzaville	AK	AP	F	35444	1830
15220	SOUTH AFRICA: R RSA		AD	E	3	3 0100
15380	RWANDA: DW Kigali	AK	AP	G	54444	2045
15445	LIBERIA: VOA Monrovia		AK	F	44434	2045
17765	RWANDA: DW Kigali		AD	TO	E	3 3 1830
17795	SOUTH AFRICA: R RSA	AD AK	DP	E	3	3 1900
17815	SOUTH AFRICA: R RSA		AK	P	45434	2000
17855	LIBERIA: VOA Monrovia		AD	E	4	3 1250
17920	UAR: R Cairo		AD	E	3	3 1425
21455	NIGERIA: Voice of Nigeria	AP	DP	E	44333	1815
21545	GHANA: Accra		AD	E	3	3 1500

ASIA

4760	INDIA: AIR Simla	AP		43323		1830
4920	INDIA: AIR Madras	CH		3	3	1700
4985	MALAYSIA: R Malaysia Penang news	CW	E	4	4	1600
6025	INDIA: AIR	DP	E	44444		2100
6560	CHINA: R Peking	AK	F	44444		1940
7120	CHINA: R Peking	AD	E	4	4	0130
9290A	CHINA: R Peking	AK	R	45444		1745
9380	USSR: R Alma Ata	AK	R	32333		1945
9430A	CHINA: R Peking	AK	E	35333		2058
9625	ISRAEL: Kol Israel	AK	E	33333		2045
9725	ISRAEL: Kol Israel	AK	E	43444		2045
9755	PAKISTAN: R Pakistan	DP	E	34333		1900
9780	CHINA: R Peking	AD	E	2	2	0140
9912	INDIA: AIR	AK DP	E	44444		2015
11620	INDIA: AIR	AK	E	44444		1750
11672	PAKISTAN: R Pakistan Dacca	AK		45444		-1730
11690	IRAN: R Teheran	AK	G	35444		1900
11710	INDIA: AIR	KJ	E	43443		0000
11717	PHILIPPINES: VOA Tinang	CH	E	3	3	1300
11785	LEBANON: R Lebanon	AD	E	2	2	0230
11855	SAUDI ARABIA: Jeddah news	KJ	A	44544		2225
11920	KUWAIT: KBS	DP	TO	E	23332	1600
11925	JAPAN: NHK		TO	E	3	3 2040
15018	NORTH VIETNAM: Hanoi	AK		55444		1745
15080	INDIA: AIR	AK KJ	E	33443		1400
15095	CHINA: R Peking	AK	E	33443		1400
15105	JAPAN: NHK	DS	E	weak		2100
15125	TAIWAN: BCC	AP	E	33323		1815
15160	TURKEY: R Ankara	AP DS	G	good		2100
15165	SYRIA: R Damascus	AP DS	A	good		2145
15230	CEYLON: Ceylon B C		TO	E	3	3 1430
15255	CHINA: R Peking	AD	E	2	2	1400
15360	PAKISTAN: R Pakistan	AD	E	4	4	0045
15385	PHILIPPINES: FEBC	AD	E	3	3	2330
17825	JAPAN: NHK	DP	TO	E	4	4 0815

PACIFIC

9520	NEW ZEALAND: RNZ	TO	E	2	2	1155
9560	AUSTRALIA: ABC	DP	E	44434		0645

9580	AUSTRALIA: ABC		DP	E	34333	0910
11710	AUSTRALIA: ABC	AK AP	DP	E	32332	0845
11740	AUSTRALIA: ABC		AK	E	44434	1500

NORTH AMERICA

5970	CANADA: CBC		AD	E	3	3	0110
9625	CANADA: CBC	AD AK	TO	E	4	4	0130
11720	CANADA: CBC		TO	E	4	4	2115
11795	USA: WINB		KJ	E	42543		2135
11820	CANADA: CBC		TO	E	4	4	1210
11920	USA: AFRTS		TO	E	4	3	2230
11945	CANADA: CBC		AD	E	3	3	2315
15325	CANADA: CBC		AK	G	44434		1745
15430	USA: AFRTS	AD AK	AK	E	4	3	1445
15440	USA: WNYW		AK	E	45444		1930
17720	USA: WINB	AD	TO	E	4	3	1815
17760	USA: WNYW		TO	E	4	4	1830
17820	CANADA: CBC	AD AK CH	DP	E	4	3	1230
17835	USA: WNYW		AD	E	3	2	1920
21580	USA: WNYW		AP	E	33333		0700

CENTRAL AMERICA

6090	DOM REP: HISD		AD DS	E	2	2	0230
11760	CUBA: R Habana		TO	E	4	3	2330
11820	NETH ANTILLES: TWR		AD	E	3	3	0030
15100	GRENADA: WIBS	AD AK	KJ	E	4	4	2200
15255	NETH ANTILLES: TWR		AD AK	E	3	3	2100

SOUTH AMERICA

4790	VENEZUELA: Ondas Porteñas		DP	S	35333		-0600
4800	VENEZUELA: R Lara	DS RV	TO	S	3	3	0250
4865	BRAZIL: R Cl do Para		RV	TO	P	3	2
4900	VENEZUELA: R Juventud	DS RV	TO	S	3	3	0055
4920	VENEZUELA: R Caracas		RV	TO	S	3	2
4935	BRAZIL: R Poti		RV	TO	P	2	2
4940	VENEZUELA: R Yaracuy		RV	TO	S	4	4
4945	COLOMBIA: R Colosal	DP RV	TO	S	4	3	0330
4955	COLOMBIA: R Nacional		RV	TO	S	4	4
4965	COLOMBIA: R Santa Fé		RV	TO	S	3	2
4970	VENEZUELA: R Rumbos	AK CW	RV	TO	S	4	4
4980	VENEZUELA: Ecos del Torbes	AK CW DP	RV	TO	S	4	4
4995	BRAZIL: R Brasil Central		RV	TO	P	4	4
6082	PERU: R Nacional, Lima		DS	S	fair		0300
9585	BRAZIL: R Exelcior		RV	TO	P	4	3
9685	BRAZIL: R Rio Mar "Sonrisal"		RV	TO	P	3	2
11710	ARGENTINA: RAE		AD	E	2	2	2330
11740	CHILE: R Nuevo Mundo		RV	TO	S	3	2
11885	BRAZIL: R Maua		RV	TO	P	3	2
11865	BRAZIL: R Cl Pernambuco		TO	P	3	3	2330
11925	BRAZIL: R Bandeirantes	CH RV	TO	P	4	3	2300
11935	BRAZIL: R Cl Paranaense		RV	TO	P	3	3
11965	BRAZIL: R Record		RV	TO	P	3	2
15135	BRAZIL: R Panamericana		RV	TO	P	2	2
15145	BRAZIL: R Jornal do Comercio	AK RV	TO	P	3	2	2120
15148	CHILE: R Corporación		DS	S	fair		2300
15155	BRAZIL: R Dif de Sao Paulo	DS CH AK	RV	P	4	3	2300
15165	BRAZIL: Ceara R Clube		CH	P	3	3	2300
15225	BRAZIL: R Cultura de Bahia		RV	TO	P	3	3
15335	BRAZIL: R Farroupilha	AK DS	TO	P	3	3	2000
15370	BRAZIL: R Tupi Rio de Janeiro	KJ RV	TO	P	3	2	2100

CREDITS: see bottom of page 19