

North American Short Wave Association

FRENDEX

SWBC NEWS 3-75

NUMBERS With this issue we begin numbering pages consecutively - but with special inserts left out of the sequence.

DUES INCREASE After much discussion the decision has been made to increase dues from \$10 to \$12, effective immediately. This, of course, is the result of rising prices that have hit DX clubs as well as everyone else. No decision has been made, as yet, on changes for the Flashsheet fee.

UP-COMING CHANGES Within the next few months some of the headquarters work for NASWA will finally be shifted from me to others. Several responsible DXers have offered a portion of their time in efforts to see that NASWA continues as the top SWBC DX organization, and that FRENDEX continues to provide DX news to the SWBC DXers. By about mid summer I will only have the responsibility of taking FRENDEX to the printer, addressing it after it is printed, and then taking it to the people who put it together. It will mean that, for the first time since before Bill Eddings died, I will not have all of my "spare" time taken up with trying to keep NASWA going. Though much of my time will be spent in an increasing amount of travel in connection with my job, I do expect to have some time for tuning the bands in search of stations and countries not heard - something toward which I look forward....More details will be given next month....Dan Ferguson

MFJ ENTERPRISES now has available a free, new catalog. The catalog lists a number of items of interest to the DXer, among them a frequency standard with markers every 100, 50 or 25 KHZ. Also listed are audio filters, small audio amplifiers, low pass and high pass audio filters, etc. For free copy of the catalog, write MFJ ENTERPRISES, P.O. BOX 494, MISSISSIPPI STATE, MS 39762

EDITORS Jim Young indicates that, due to illness, he will not be able to take over as editor of the B section of Log Report. Larry Yamron, former QSL REPORT editor, is back in Pittsburgh for the next several years, and has agreed to edit the B section beginning with the June, 1975 issue(compiled in May). Further announcement will be made in future months, in the Log Report itself. Mac Leonhardt will continue to edit the LR-B section until Larry takes over....Other changes upcoming in future months include Mac Leonhardt taking the responsibility for coordinating the FRENDEX editorial staff. Again, more in future issues of FRENDEX when there is more space.

QSL REPORT Bob Zabot mailed QSL Report to NASWA HDQ nearly two weeks ago. We have held up the March FRENDEX in the hope that it would eventually show up in the mail box. But it seems we are to be so favored by the USPS. Consequently, this issue does not contain a QSL Report. In addition, since some of the other sections seemed smaller than usual this month, we have held over Charlie Loudenboomer's latest report, and delayed the start of publication of the results of Neal Perdue's ANTENNA SURVEY, so that we would have space to include, as a special insert which can be pulled out & kept handy, the latest revision of the NASWA COUNTRY LIST.

HELPING HAND ADS For Sale, Realistic DX150 B, with SP150 speaker and manual, 18 months old with circuitry checked at factory. \$100, I'll ship. Moving up to Drake. Write Mark J. Brown, 24 North Frankfort Street, Minster, Ohio 45865.

Shortwave Center

Charles A. Wootten
4911 Battery Lane, Apt. 1
Bethesda, Maryland, 20014

! Case Unparalleled !!!

A NASWA EXCLUSIVE :: :

Not even the unique telegram "QSL" from Prince Sihanouk several years ago equals this fantastic QSL from Jember Radio! This QSL was discovered in the Indonesian newspaper "BUANA" on the 2nd of December 1974. Ye ed visited the Indonesian Embassy in that month on other business, and the First Secretary remembered this article and was kind enough to forward a Xerox copy to me along with the translation. The copy is a bit difficult to read - but here is, indeed, proof enough of this unique QSL. The translation is provided courtesy of Mr. Emir H. Haly, First Secretary, Embassy of the Republic of Indonesia. Me, of NASWA, thank Mr. Haly for his courtesy in providing this information.

Siaran radio Jember didengar di AS, Jepang dan Australia

29 DESEMBER 1974
Jember, (Bunau): — Siaran
Radio Khusus Pemerintah Dae-
rahs (RKPD) Kabupaten Jem-
ber, telah didengar dengan ha-
ru di Amerika Serikat, Jepang
dan Australia.

Menurut surat salah seorang
penduduknya bernama Dan
Anderson - beralamat di 317
Brook Bridge Road, Laurel,
Maryland USA yang diterima
pimpinan RKPD Jember tgl.
23 Nopember 1974 menjelaskan
tg 5 Nopember 1973 men-
dengar secara jelas siaran da-
ri pemancar RKPD Jember pa-
ra 3800 Kilocycles, 78.04-mu-
lai dari jam 12.25 sampai jam
13.00 waktu Greenwich. —

Menurut surat Dan Ander-
son tsbu, kekuatan dari tanda
pemancar cukup kuat, walau-
nya banyak gangguan listrik
dan cara serta dari telegraf
station sedang fading cukup.

Selain diketahui mengenai
acepat dan penyiarannya yang
didengar dari siaran RKPD
Jember ini, Dan Anderson me-
nyebutkan dirinya memiliki
sebuah penerima radio (receiver)
Drake SPR-4, dengan 18 tran-
sistor yang dilengkapi antena
panjang 24 meter.

Selain itu diterima pula su-
rat pendengar dari Jepang ber-
nama Nobusaki Takahashi

umur 22 tahun berAlamat P.O.
Box 47 Krishikawa Tokyo 112
Jalan, jalanan sentawa, yg
mnyatakan menerima dengan
jelas RKPD Jember (tg. 4 No-
vember 1974 Jam. 19.33
sampai 20.05 WIB dengan ge-
taran 3800 KHz (Kc/S) gelomb-
ongan 78.05 meter.

Selain mendengarkan acara
yang diberitakan oleh Nobusaki
Takahashi menyebut juga Padis pemakai-
nya yaitu Collins R-390/UUR
(3 tube), RF-21F-3 dengan
antena pemakaiannya Long Wire
50 meter long.

Selanjutnya beberapa surat
diterima oleh pimpinan RKPD
Jember dari pendengarnya di
Australia, yang menyatakan
memerlukan dan mendengar de-
ngan baik RKPD Jember.

(SP/5)



Congratulations to Dan and Nobusaki on this unique method of receiving a QSL! Perhaps the station's QSL, if received, will be displayed in a future column of QSL REPORT. FANTASTIC!

The amount of material submitted to SWC in recent weeks
is tremendous! Even though ye ed has not acknowledged
receipt of your material, please be assured that it is
here and will be used in future columns. Anything re-
lated to short wave - whether it be technical or just
your ideas - are always welcome. While there is no
deadline, keep in mind that this is typed 7 weeks early.





The Mini Page

"IN MEMORIAM"

by Al Sizer

Every DX'er should say a prayer for the repose of the soul of Dr. Walter G. Cady the next time he, the listener, locks in on a frequency with his crystal-controlled receiver. Dr. Cady made it all possible.

Dr. Cady, a professor of physics at Wesleyan University in Connecticut from 1902 to 1946, died in a nursing home 9 December 1974 - the day before his 100th birthday.

Cady was researching a submarine detection project during World War I when he discovered a way of connecting piezoelectric crystals in a radio transmitting circuit so that frequency could be held constant to a high degree. In 1921 he and his associates at Wesleyan mounted the first piezoelectric crystal resonator which served to control frequency and solved one of the most serious problems of radio.



"Why don't you get a set with band-spread?"

"PRIZES AWARDED!"

As mentioned in October SWC, Ed Shaw offered prizes for material submitted to SWC. All entries were appreciated and are, or have been, used. Each of the following members have been sent a 6-foot coaxial cable with phono plugs - handy for recorder hook-up:

Marlin Field

Dan Jamison

Morgan Monroe

Larry Magne

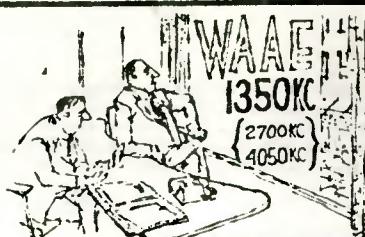
Al Sizer

Bob Zabot

Thanks to all from Ed and NASWA!



Snow in Arctic-there was just a slight heterodyne. Slowly I adjust my antenna tuner..."



"Well, yes, we ARE having a little trouble with harmonics!"
GLENN."

"TGNA RADIO MARATHON NETS 25 TONS OF SUPPLIES"

Within hours of the learning of the disaster in neighboring Honduras, Guatemala's Christian radio station TGNA began broadcasting appeals for help for the flood victims of Hurricane Fifi. Manager Don Rutledge flew to San Pedro Sula for a firsthand look at the damage and to confer with Christian leaders on the best way to help. The response from TGNA's audience was overwhelming. Hour after hour, Indian farmers and city businessmen, housewives and school children streamed into the radio offices bringing clothing, medicines, sacks of corn, beans, sugar and canned goods. By Friday, one week after the hurricane hit, enough supplies had come in to fill two large trucks with over 15 tons which went directly to the committee in San Pedro Sula headed by CAM pastor Julio Marraga. A third truck left three days later with an additional ten tons. Not all donations were from Christians. Students at a local school collected items and brought them to the station in the school bus. Several people said they wanted to send aid through TGNA because that way they were sure it would go directly to the victims. TGNA was one of less than half a dozen organizations authorized by both the Guatemalan and Honduran governments to handle relief efforts.

From: Central American Mission Bulletin
and forwarded to SWC by
Marlin A. Field

SHORT WAVE STATIONS



OF INDONESIA

by Dan Henderson
with extra additional goodies by
Charlie Wootten

Many DX-ers have heard Indonesian stations and have wondered just where these stations are located. Most World Atlases don't divide Indonesia into the Provinces and Special Districts. In order to aid other DX-ers, the following list of Indonesian stations that have been heard recently have been divided up by Province and Special Districts. Information gleaned from ARDXC Indonesian Survey (8-74) and Encyclop. Britannica.

* * * SUMTRA * * *Daerah Istimewa Aceh

RRI Banda Aceh

Propinsi Sumatera Barat

RRI Padang

RRI Bukittinggi

Propinsi Bangka BelitungPropinsi Sumatera Selatan

RRI Palembang

RRI Tanjung Karang

Propinsi Lampung* * * JAVA * * *Propinsi Jawa Barat

RRI Cirebon

RRI Bandung

RPDK Serang

RRI Bogor

Daerah Khusus Jakarta Raya

RRI Jakarta

R. Augustina Junior

R. Cama Jaya

R. Angkatan Bersenjata

Propinsi Jawa Tengah

RRI Surakarta

RRI Semarang

Daerah Istimewa Yogyakarta

RRI Yogyakarta

R. Daerah Yogyakarta

R. Universitas Gajah Mada(Suara Gama)

Propinsi Sumatera Utara

RRI Medan

RRI Sibolga

RPDK Simalungun

Propinsi Riau

RRI Pekanbaru

Propinsi Jambi

RRI Jambi

Propinsi Bengkulu

RRI Bengkulu

Propinsi Jawa Timur

RRI Jember

RRI Surabaya

RRI Malang

RRI Sumenep (Madura)

RKPD Sampang (Madura)

RKPD Kota Madya

RRI Madiun

RPDK Kediri

RKPD Propinsi Jawa Timur

RKPD Pasuruan

RKPD Jombang

RKPD Pamekasan (Madura)

RPDK Situbondo

RKPD Jember RKIP Surabaya

RPDK Sidoarjo

RPDK Blitar

*** LESSER SUNDAS INCLUDING BALI ***

<u>Propinsi Bali</u>	<u>Propinsi Nusa Tenggara Timur</u>	<u>Propinsi Nusa Tenggara Barat</u>
RRI Singaraja	RKPDK Lombok Timur	RRI Mataram
RRI Denpasar	RRI Kupang	RKPDK Sumbawa

*** BORNEO ***

Propinsi Kalimantan Selatan

RRI Banjarmasin

Propinsi Kalimantan Timur

RRI Samarinda

Propinsi Kalimantan Barat

RRI Pontianak

Propinsi Kalimantan Tengah

RRI Palang Karaya

*** SULAWESI (CELEBES) ***

Propinsi Sulawesi Selatan

RRI Ujung Pandang

Propinsi Sulawesi Utara

RRI Gorontalo

RRI Manado

Propinsi Sulawesi Tenggara

RRI Kendari

Propinsi Sulawesi Tengah

RKPDK Donggala

P.PDK Banggai

*** MOLUCCAS ***

Propinsi Maluku

RRI Ambon

RRI Ternate

Propinsi Irian Jaya

R. Non Pemerintah Suara Annida

RRI Manokwari RRI Pak Fak

RRI Jayapura RRI Biak

RRI Merauke RRI Serui

RRI Sorong RRI Enarotali

SPECIAL: Courtesy of the Embassy of the Republic of Indonesia via Charlie Wootten

The following listings is an up-to-date table of most of the R.R.I. stations including address and Director (Pimpinan). There are 47 RRI stations throughout Indonesia as of this writing. For several of these, the address is not available, but the name of the Pimpinan is listed for your information.

Number	Studio	Address (Alamat)	Pimpinan
1	Jakarta Pusat	Jl. Medan Merdeka Barat 4-5	M. N. Supomo

NUSANTARA I, II, III

2	Ujung Pandang	Jl. Riburane Nr. 2	Slamet Poedjono
3	Jogjakarta	Jl. Amad Djadjuli Nr. 4	Thomas Sugito
4	Medan	Jl. Bulan Nr. 5	Amar Siregar

REGIONAL

5	Banda-Aceh	Jl. Bendar Meida Nr. 13	Amin Gus
6	Bukit Tinggi	Jl. Jen. A. Rifoe Nr. 22	Syarif Syukar
7	Padang	Jl. Jen. Sudirman Nr. 12	Abdul Hamid
8	Pekan Baru	Jl. Jen. A. Yani	Aniruddin S.
9	Jambi	Jl. Moh. Tohir Nr. 12	Asril Aswar
10	Palembang	Jl. Merdeka Nr. 2	M. Arsyad Subit
11	Bandung	Jl. Cianjur Nr. 6-8	Padjar Madradji BA.
12	Semarang	Jl. Letjen A. Yani Nr. 144	Siswadi
13	Surakarta	Jl. Markoni Nr. 1	Soejojo Tjitro kostoro
14	Surabaya	Jl. Pemuda Nr. 9	Syam Abdurrahman
15	Denpasar	Jl. Melati Nr. 1	Duli-Hadi BA.
16	Pontianak	Jl. Perwira Nr. 7	C. Tobing BA

<u>Number</u>	<u>Studio</u>	<u>Address</u>	<u>Pimpinan</u>
17	Banjarmasin	Jl. Lambung Mangkurat Nr. 1	A. Njongki BA.
18	Palangkaraya	Jl. Kalimantan Tengah	Bedjo-Dekoto
19	Samarinda	Jl. Pemantian Nr. 34/35	Heley Toba BA.
20	Matares	Jl. Lengko Nr. 13	Rinaldi
21	Kupang	Jl. Tempolo Nr. 8	P.W. Sopanit
22	Amboon	Jl. Jem. A. Yani	J. Nemisa
23	Kendari	Jl. Pentai	M. Hanafie Umar
24	Menado	Jl. Dr. Sam Ratulangi	J. P. P. Montong BA.
25	Jayapura		Sardjono Bambang Pramono
26	Sorong		F. P. Likumahwa

LOCAL

27	Sibolga	Jl. Ade. Suryani Nr. 5	Zainal Abidin
28	Tanjung Karang	Jl. Jem. A. Yani Nr. 160	Awaluddin Ginde
29	Cirebon	Jl. Siliwangi Nr. 101	Ideham Djunaid BA
30	Madiun	Jl. Pahawian Nr. 32	Mas Soetardi
31	Sumenep	Jl. Kaliaget	Effendi
32	Jember	Jl. Maluku Nr. 1	Soedibjo
33	Gorontalo		Usman Abdullah
34	Bikak		Abd. Fatah
35	Fak-Fak		Dolfinus Rumbine
36	Nabire		Oentoeng
37	Tanjung Pinang	Jl. Diponegoro	Zainal Abbas
38	Bogor	Jl. Pangrango Nr. 30	Djudju Jauhari
39	Purwokerto	Jl. Raya Nr. 211	Soepardjo
40	Malang	Jl. Cermai Nr. 16	Joso Prawiro
41	Singaraja	Jl. Gajah Mada	Soedjadi Hardjolukito
42	Palu	Jl. Raya Nr. 1	Hendro Soegito
43	Ternate	Jl. Kedaton	Achmad Semarang
44	Merakue		Bob Mustika BA.
45	Manokwari		Soebardi
46	Serui		Sardjono Bambang Pramono (Koord. Irian Jaya)
47	Wamena		Jopenhab

The *Indonesia Handbook*, dated 31 March 1974, also gives the following information: Indonesia is the greatest archipelago in the world. It consists of five main islands and about 30 smaller archipelagos totalling 13,677 islands of which about 6000 are inhabited. The name Indonesia is composed of the two Greek words: INDOS, meaning east Indian, and NESOS, meaning islands. So Indonesia literally means East Indian Islands.

The five main islands are: SUMATRA, which is about 180,000 sq. miles; KALIMANTAN (the Indonesian part of Borneo, about two thirds of the whole island); 208,000 sq. miles; SULAWESI, 73,150 sq. miles; JAVA, the most fertile and populous island, 51,200 sq. Miles, and IRIAN JAYA (formerly known as West Irian until 1 March 1973) 102,000 sq. miles.

Indonesia shares the island of Kalimantan with Malaysia, Irian Jaya with Australia, and Timor with Portugal.

Geographically, the Indonesian Archipelago is grouped into four regions:

- (1) The GREATER SUNDAS comprise Sumatra, Java, Kalimantan, and Sulawesi;
- (2) The LESSER SUNDAS (Nusa Tenggara) include the islands from Bali to Timor;
- (3) The MOLUCCAS (Maluku) include all those islands between Irian Jaya and Sulawesi; and

(4) IRIAN JAYA constitutes a region by itself.

Administratively, the Republic of Indonesia is divided into 26 first level regions (provinces and special territories which have a status as provinces):

J A V A :

- (1) Jakarta Raya Special Capital Territory
- (2) West Java, capital Bandung
- (3) Central Java, capital Semarang
- (4) Yogyakarta Special Territory, capital Yogyakarta
- (5) East Java, capital Surabaya

S U M A T R A :

- (6) Special Territory of Aceh, capital Banda Aceh
- (7) North Sumatra, capital Medan
- (8) West Sumatra, capital Padang
- (9) Riau, capital Pekanbaru
- (10) Jambi, capital Jambi
- (11) Bengkulu, capital Bengkulu
- (12) South Sumatra, capital Palembang
- (13) Lampung, capital Tanjungkarang-Telukbetung



THE DRAKE 2-C RECEIVER

A NASWA REVIEW BY OWNER

NEAL A. PERDUE

A perfect receiver, to cover all the requirements of the SWL/DX-er, for under \$300, will probably never appear on the market. The 2-C is not that perfect receiver, but offers more features for the money than any other rx, which can be bought new, with which I am familiar.

As it comes from the factory, it is strictly a 10 thru 80 meter Hamband rig, but with extra crystals it becomes a general-coverage rx capable of tuning any 500 kHz segment of the 3 - 30 mHz range. All that is necessary to tune any segment is to plug the appropriate crystal into the convenient side-of-the-rx socket and set the bandwidth and preselector according to the chart in the manual. This chart shows the proper settings for every frequency range in the 3-30 portion of the spectrum.

Suggested retail price is \$295, but most ham-suppliers give a ten percent discount for cash/no-trade-in. I was offered \$150 for my SW-4A provided it was in excellent condition. I declined that offer, and am glad I did as the old rig came in very handy for calibrating and checking frequencies on the 2-C. The going price for a used, checked out, and guaranteed 2-C is about \$189 - a good deal if you don't mind taking a chance. Most reputable ham-traders offer a ten day money-back trial period. After that, it's yours!! Drake no longer stocks this recently discontinued model. I hesitate to recommend a dealer, but the addresses of several of them can be found in any monthly ham magazine. I dealt with Amateur Electronics Supply in Milwaukee and was satisfied with the service. I had the rig in the shack six days after sending a bank money order. A personal check will slow things up considerably.

After much discussion with Ed Shaw (who put me on to this rig), Dan Ferguson, and Dan Henderson, who has a friend with a 2-C, and now several weeks of testing the unit and comparing it with the SW-4A, it appears to me that this may be one of the most overlooked and under-estimated rigs in our hobby, possibly because of its' ham designation. When considering the price, one must add the cost of crystals for the coverage desired. I bought 8 crystals and have the following coverage, including that afforded by the crystals supplied with the rig: 3.0-3.5, 3.5-4.0, 4.5-5.0, 5.0-5.5, 6.0-6.5, 7.0-7.5, 9.5-10.0, 11.5-12.0, 14.0-14.5, 15.0-15.5, 17.5-18.0, 21.0-21.5, and 28.5-29.0 mHz.

Specifications, as per Drake, are as follows:

Sensitivity: less than .5 microvolts on all ham bands. (It seems more than adequate on ALL bands, and it is better than on the SW-4A).

Stability: (excellent at-) less than 100 Hz after warm-up.

Selectivity: (my comments and Drakes' specs) - while the skirt-selectivity of the filters is considerably wider than on the more expensive Drake models, the filters are still very helpful in QRM situations. A BIG plus here is that the filters can be used in the AM mode, and exalted-carrier reception is not required unless desired. It is, of course, nice to be able to take your choice on this. Filter specs are: 4.8 at 6db down, 16.8 at 60db down - a 3.5 to 1 shape factor, 2.4 at 6db down, 9.0 at 60db down - 3.75 to 1, .4 at 6db down, 2.8 at 60db down for a whopping 7-to-1 shape factor. However, the extremely broad skirts of this CW filter do sometimes permit decent reception of otherwise unusable AM transmissions, using the exalted-carrier method, with only slight distortion - although there is some signal loss.

Front Panel Controls: The versatility afforded by the rig is apparent here, and was one of the main considerations when I decided to buy it. Main Tuning - in 10 kHz dial markings, visual readout to about 1 kHz, if calibrated accurately as described later in this review. Bandswitch, Preselector, Mode Switch (AM, USB, LSB), Selectivity (4.8, 2.4, .4), Function Switch (Off, Stby, On, Ext Mute, Noise Blanker, Calibrate), and AVC (slow, fast, off), and separate AF and RF gain controls.

Left Side-Panel Controls: Normal/Aux slide switch, Aux crystal socket (this one easily accessible socket accepts one crystal at a time for ALL coverage), and Phones Jack.

Rear Apron and Chassis Connections: Some provisions for use with the 2NT or equivalent transmitter, 50-75 ohm antenna RCA phono plug socket, 4 ohm speaker RCA socket, and provisions for the optional plug-in calibrator, noise blanker, and 2-CQ speaker/Q-multiplier accessory about which I know very little.

Additional Specs of Interest: 5 tubes, 15 transistors/semi-conductors, triple conversion on all bands. Note: The 2-C does not appear sensitive to spurs unless the preselector is grossly mistuned. Careful tracking is necessary on some bands.



Frequency Readout and Calibration of Tuning: Considerable comment must be made on this subject. This is where it becomes apparent that we are discussing a rx at about half the price of the exotic Drakes. An explanation of the tuning systems are necessary here. Basically, my comments on tuning and readout are negative in nature, but the problem can be largely overcome with some time, work, and patience.

Visual readout is limited by the 10 kHz marks on the main tuning dial. However, accuracy to approximately 1 kHz is possible with practice and use of a time consuming calibration process, but once done - the calibration is final and does not require resetting when changing bands. The main tuning dial and main tuning knob are not geared together as are in other Drake models. It's a strange-arrangement, but accuracy of readout remains constant since the main tuning dial is secured to the shaft of the VFO in a permanent position. There are "approximately 1 kHz" markings around the tuning knob, but they are for all practical purposes useless since they do not bear any direct relationship to anything in particular! The VFO is not truly linear and it was necessary to compensate for this with the 10 kHz markings on the main dial being spaced closer together near the middle of the 500 kHz spread and farther apart as they approach each end, so obviously the marks on the tuning knob cannot be in direct proportion to this kind of setup from 0 to 500 on the dial. There is no simple method of aligning the main dial on the shaft to compensate for this lack of uniformity as readout deviations do not fit any simple pattern such as 2 kHz low thru-out the band. Example: 6000 reads 5998; 6050 reads 6051; 6090 reads 6092; the readout remains 2 kHz high up to 6200, reads AS IS from 6270 to 6360, and reads 1-2 kHz LOW from 6370 to 6500! Since there is considerable variation in both directions, calibration even defies a crystal calibrator, unless you care to set it every 10 kHz. I don't! Unfortunately, there is only one way to calibrate the rig accurately, and it's about as much trouble as calibrating a general coverage rx, but once done it's final, reasonably accurate. And - I feel - worth it.

To start, I cross checked the crystal calibrator and a known station at the 400 position on the main dial and set the hairline on it. The 400 position was chosen because for some reason which I suppose only Mr. Drake and possibly his hairdresser knows for sure, 2 kHz is the maximum deviation at any point on the dial from real to read-out frequency, when calibrated at this particular point. This initial setting, on any band you may so choose, is the reference point for all future settings on all bands and will not change. In other words, you set it and forget it, and calibrate everything else against it.

I had hoped to be able to get away with calibrating a couple bands to where I covered on one band or another every 10 kHz mark from 0-500 on the main tuning dial and would simply be able to interpolate for the remaining bands, so that if 6200 read 6202 I could assume that 15200 would read 15202, 9700 would read 9702, etc. Well, it was pretty close but not close enough to suit me, due to slight differences in the crystals. The only answer left was to go through each band and listen to stations on multiples of 10 kHz and log every one of them for actual as "read as" frequencies. When completed - after a couple of weeks - 98% or so of the frequencies did match up from one band to another, but I had the satisfaction of knowing that I had done the job as well as I knew how. I then felt confident by comparing characteristics of two bands that I could now fill in the blanks, such as 6200-6500 MHz, by interpolation from a band that matched up with the 6000-6200 portion of 49 meters with a high degree of accuracy. What a job! But now that is over, it will remain constant unless the XYL bumps against the hairline. All in all, I'm happy with the rig, and I expect to hear a lot of DX on it. 73 --- M.A.P.

AN AND BE GAIN CAN CONTROL CRM

by
Neal A. Peetus

If you have a receiver equipped with separate RF and AF gain controls, you probably use it as most of us do: with the RF Gain wide open and the AF Gain as a volume control. This is fine for normal listening, but the following procedure is often helpful when trying to hear a stronger station which has annoying interference on the same frequency or from an adjacent frequency. Turn down the RF Gain until the weaker station drops out, and turn up the AF Gain until the desirable listening level is attained. This is common knowledge to most of us, but it might be helpful to someone who is new to a receiver with this capability. I often forget to do this and I am quite often pleased by the results when I do remember it.

ELECTRONIC OUTLINES

by

A single passage of a radio wave to the ionosphere, where it is reflected, and back to earth again, is called a HOP. The number of hops taken is referred to as the ORDER OF REFLECTION.

So, how come FIBS won't bop my way? hi hi Reflect on that. If you will:

SCOREBOARD

EDITOR:

Neal A. Perdue, WDX4NAP
4937 S. Bilrue Circle
Millington, Tn. 38053 U.S.A.

Next Deadline: 10 May, 1975

Phone: (901) 872-2133
Weekends only

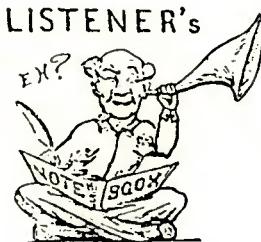
SCOREBOARD

This report is published quarterly in March, June, September and December. SPOTLIGHT this month is on AFRICA, and will fall on ASIA in June. Many thanks to those of you who have recently updated your totals. If totals are not updated at least annually, the member will be considered inactive for SCOREBOARD purposes, and will be dropped from the list. Response to the antenna/accessories survey in January PDX has been gratifying, and we will devote one or two pages per month to this until completion- starting in this issue or the next one. Members may still submit antenna/accessories data to the above address until further notice. Ye olde editor thought he was doing pretty well by adding 15 new countries heard since the last SB, but others did better. It's been a great DX-season! I hope it has been as good at your QTH. I have not yet made a final decision on how to handle Antarctica, but am leaning toward including it with the Oceania spotlght with an asterisk designator or some such. I do not feel that this continent with one SWEC station rates a separate spotlight. The Countries List Committee will also have to make some decisions on this one, as it appears that this is not a country and could not be counted as one unless we bend the rules a little. One last word- most of the questions that I get regarding country and station-counting rules are answered in the IARU Radio Country list, available from Headquarters for 25¢ and a SASE. This is a MUST for the serious DXer. Well, enough chit chat for now- on with the business.

REPORTER/LOCATION	AFRICA						BEST QSL/FREQUENCY
	C/H	C/V	S/R	S/V	C/H	C/V	
1 Don Jensen, Wisc	216	211	---	---	---	---	
2 Gerry Dexter, Wisc	213	209	1009	801	---	---	
3 James Young, Cal	211	180	687	216	---	---	
4 Dan Henderson, Md	209	197	---	---	60	59	A Voz do Zaire 4885
5 Sam Barto, Ct	207	190	1125	584	---	---	
6 John Campbell, Switz	205	182	---	---	60	53	R.Cl.de Benguela 7161
7 Bob Radula, Australia	203	198	---	---	---	---	
8 Ed Shaw, Cal	203	183	577	312	61	56	R.Cl.de Melanje
9 Marvin Robbins, Neb	203	166	801	434	59	51	R. Katanga 11865
10 Ernie Behr, Ontario	202	170	1005	290	55	41	R. Lesotho 4800
11 Bill Sparks, Cal	201	196	---	594	54	52	Hargeisa 4797
12 Bob Hill, Cal	199	4	---	---	---	---	
13 Larlin Field, Mich	197	192	782	633	---	---	Mt Kenya Reg. 6170
14 Ralph Ferry, Ill	197	185	---	---	60	57	Rio Muni 4926
15 Scott Reeves, Md	196	159	717	---	60	46	Fr Reg 3, Reunion 2446
16 Dan Robinson, Pa	195	144	---	---	---	---	
17 Al Niblack, Ind	194	125	---	---	---	---	Reunion 2446
18 Alan Roth, NY	193	177	591	441	59	57	Biafra 7304
19 Alan Mayer, Ill	192	140	469	230	57	39	Reunion 2446
20 Jim Haren, Va	192	86	---	---	---	---	
21 Bill Flynn, Cal	191	173	682	449	---	---	
22 Gregg Calkin, Pakistan	181	165	409	314	---	---	
23 Irv Johnson, Cal	179	53	---	---	59	17	
24 Victor Jaar, Quebec	178	4	---	---	53	1	Mozambique 15295
25 Larry Yamron, Ia	173	139	---	---	---	---	LVdeRev Burundi 3300
26 Bruce Churchill, Cal	170	145	230	179	56	47	
27 Steven d'Adolf, Tx	165	137	221	184	48	37	Eq. Guinea
28 Albert Miller Jr., Oh	164	141	369	173	49	39	R Cl de Cabo Verde
29 Hank Lichalenka, RI	164	150	274	147	49	31	Mauritius 9710
30 Tom Gavaras, Mn	160	114	279	198	---	---	
31 Jeremy Valdes, N Scot.	157	72	---	133	47	15	R. Euba 3970
32 Neal Perdue, Tn	156	54	---	---	48	12	Seychelles 15270
33 Fred Baines, N Scotia	155	145	281	271	---	---	
34 John Sgrulleta NY	154	149	---	---	46	45	Reunion 2446

REPORTER/LOCATION						AFRICA C/H C/V	BEST QSL/FREQUENCY
	C/H	C/V	S/H	S/V			
35 Myron Smith, NY	154	121	---	176	49	34	Seychelles 11855
36 Doug Snyder, Cal	153	112	---	---	46	25	Afars & Issas 4780
37 Charles Wootten, Md	152	122	359	257	---	---	
38 Larry Abraham, Wi	152	115	294	154	42	27	Rwanda 6055
39 Mike Ryan, Cal	151	151	---	---	---	---	ORTF Reunion 4807
40 Jerry Lineback, Ill	143	76	287	93	41	22	Dahomey 4870
41 Jerry Stuart, Ok	140	120	222	200	---	---	Gambia 4820
42 Steve Estes, Va	140	67	266	77	41	11	URTN Niamey 5020
43 Richard Schwartz, Del	138	98	194	181	42	28	Gambia 4820
44 Al Reynolds, Tn	136	107	247	134	---	---	
45 Rich Koret, NY	134	90	---	90	---	---	
46 Tom Cwikla, Ct	133	114	257	182	---	---	
47 Lark Duba, Vt	133	104	---	---	---	---	
48 Elliot Straus, NJ	132	60	---	---	---	---	
49 Larry Marshall, Cal	131	111	190	165	---	---	
50 Andrew Jappas, Ill	130	118	130	118	---	---	
51 Joey Nonnast, Tx	130	110	229	155	34	28	Seychelles 11955
52 K.L. Greer, NC	130	80	---	---	33	16	ORTF Comoro Is 7260
53 Greg Kelley, Va	129	96	152	123	---	---	
54 Steve Wallace, Ia	127	53	---	---	---	---	
55 Denny Driscoll, NC	125	112	---	---	---	---	
56 Neal Kolb, Fla	124	72	273	---	---	---	
57 Bill Iaschke, Wis	122	75	248	94	---	---	
58 Hadley Cress, Va	119	6	---	---	34	1	R.M. Madagascar 15220
59 Carroll Patterson, Ga	114	102	315	158	29	24	R Cl Mozambique 11780
60 Arthur Smith, Ala	111	80	147	94	29	19	Cape Verde 3833
61 Woody Seymour, NC	110	92	155	120	---	---	
62 Darrell Buxton, Cal	109	69	---	---	---	---	
63 Michael Agner, NJ	107	73	241	76	25	10	RTV Malagasy 17730
64 Mac Leonhardt, In	107	65	---	---	27	12	RTT Tunisia 6195
65 Joe Dileo, Ct	105	91	---	---	30	24	Sudan 4994
66 Mike Hardester, Cal	103	96	153	135	20	20	Brazzaville 15190
67 David Ball, Ontario	102	66	156	112	---	---	
68 Jeffrey Iowers, Ia	98	61	168	87	27	9	R. Tanzania 15435
69 Edward Hyatt, Ga	96	69	143	120	23	20	Gambia 4820
70 Elton Hewitt, Id	95	81	116	102	20	---	
71 Jerry Word, Ga	95	81	---	---	---	---	
72 Irving Kaufman, NY	95	56	123	85	---	---	Togo 5047
73 Lildred Marshall, ND	94	86	134	118	---	---	
74 John Kolb, Cal	94	84	110	101	---	---	
75 Corky Webb, Tx	94	80	161	111	---	---	
76 Allan Courtney, Ky	93	27	176	29	23	4	
77 Bryan Irice, Ia	89	40	193	52	23	4	ELWA Liberia 11940
78 Philip Wala, Wis	86	71	---	98	15	12	Sierra Leone 3316
79 Wallace Peters, NY	86	50	96	54	---	---	
80 Dan McCarthy, In	82	59	125	84	21	12	Brazzaville 11725
81 David Coursey, Tx	80	51	136	56	---	---	
82 Kevin Atkins, Ala	79	38	103	45	---	---	
83 Henry Fino, NY	77	55	90	64	11	9	---
84 Keith Russell, Ill	75	32	---	---	13	3	---
85 Donald King, Ia	71	60	106	82	---	---	
86 Adam Gaffin, NY	71	49	132	59	12	4	ETLF Ethiopia 11865
87 Frank Hermann, Quebec	65	52	89	61	---	---	
88 Gus Miller, Cal	61	38	90	59	---	---	
89 J. Cole, Col	60	39	70	43	7	5	R. Cairo 9475
90 Pat Tobin, Pa	59	36	74	38	---	---	
91 Jim Davis, Cal	52	42	75	54	---	---	
92 Jerry Slaff, NY	49	43	76	58	7	7	R. Ghana 9545
93 Rex Wockner, Ill	48	47	69	65	5	5	ELWA Liberia 11940
94 R. MacLeod, Ia	48	7	73	12	---	---	Seychelles 11955
95 Greg Krause, Minn	46	17	68	20	---	---	

Ed. note: About 10 names were put into the INACTIVE file and dropped from SCOREBOARD this time due to lack of participation--- no update since March 1974. The requirement of an annual update seems pretty reasonable to me.



As you all may have noticed, ye ed has a new address, please take note for future reference. Because of my recent move, some late reports to LN intended for this month's IN will be used next month because of the postal lag caused by the change of address. Thanks - DJ.

Dan Jamison
4491-F Lakeside South
Columbus, OH 43227
614-861-1125

Deadline: 15th

***** CHINESE LANGUAGE REPORT *****
FORMS AVAILABLE

NASWA and LISTENER'S NOTEBOOK are making available Standard (Mandarin) Chinese reception report forms to NASWA members. These forms are easy to use. There is no re-writing of Chinese characters involved. All you have to do is to fill in the blanks on these pre-printed form letters. They are simple to use! Order your's today and be the first person on your block to have a QSL from a regional Chinese station!, hopefully. Just send \$1.50 to Dan Jamison's new address above to receive your packet of ten forms - postpaid. Overseas members, please enclose \$1.75 (IRC's are o.k.); the increase in price is due to the increase in postage rates.

AUSTRALIA R. Australia will soon begin testing fm a site in Western - Australia to compensate for the downed Darwin facility. (Keith Glover in MAILBAG, 2/2/75 via Glenn Hauser, OK)

AZERBAIJAN, SSR Baku can be hrd sometimes with Turkish to 1950 on 6110. However, the freq is often covered by Budapest or the CBC Malta. (via Victor Faar, Canada)

BELGIUM English to North and South America fm RTVB may be hrd fm 2255-2315 on 9730 and fm 0040-0100 on 6055. Also check 11855 fm 2255-2315 and give 9730 a listen fm 0040-0100. (Charles Brunner, PA)

BRAZIL R. Cultura da Bahia, Salvador, now has a powerful xmtr on a NF of 6155. It has been observed fm 0000-0300, when mixing with Vienna. It was in the clear though fm 0900-1100. (Dr. Richard Wood, NY)

BURUNDI Radio Cordac is scheduled fm 0530-0800, 1300-1400, 1900-2030 on 3985 and 4920 (alt. 4895). They have ENGLISH fm 0700-0715. (via DX'er Sam Barto, CT)

CHAD RDF Nationale has been noted on 4904 at 0500-0530 in FF w/Afro chants and mx. This sta is very clear after R. Juventud signs off at 0400. (via Eric Falkenhan, MD)

CHINA China Press Agency stations may be hrd fm 1100-1400 on 13700, 13445, 14820, 16105, 15574. Why don't you all try a Chinese language report form on these guys! DJ (via "me mate" Mike Willis, Australia)

CLANDESTINE R. Euzkadi has been noted regularly on 12080 signing on at 192P w/IS and w/ancmts in FF, EE, and SS. As soon as the Spanish and/or Basque pmr starts, the jammers come on. The IS is an 8 note jobble played on chimes. The EE ID goes like this, "This is Radio Euzkadi, the Voice of the Basque Underground." (many thanks Eric...Eric Falkenhan, MD)

DOMINICAN REPUBLIC R. Clarin now b/c's on 4850 w/3 KW's and on 11700 w/50 KW's. Rpts should be sent to Departamento Tecnico, Radio Clarin, Apartado 205 - Zona 2, Santo Domingo, Dominican Republic. (Pitt McNeil, Washington, D.C.)

ENGLAND The BBC World Radio Club is now hrd on Wed's @ 1330 and 2315; on Fridays at 2030; and on Sundays at 0815. (Jeff Slaff, NY)

GUYANA Action Radio on 3290 has extended its sked several days past its regular 0535 s/off. This accounts for several Unid stations being rpt'ed around this time on this freq. (DX'er Scott Reeves, MD)

GERMAN FEDERAL REPUBLIC DW is using or testing NF's not listed in its current sked. 3995 in GG fm 2300-0600 + and mixing w/Radio RSA fm 0255-0430 in EE. They have only their IS going on 6065 fm 0215-0230 mixing w/VOA and Madrid. RFE, Germany, has moved fm 3995 to 3990 to avoid DW when the Polish svc begins at 0355. Come on DW, what ever happened to responsible frequency utilization, huh.-DJ. (via the "DX'ing Doctor", Richard Wood, NY)

FINLAND SCDX #1305 quoting David Mawby who is the DX Editor at R. Finland: Yleisradio has purchased fm Sweden some new equipment which enables its 100 KW xmtr, at present only used in the 19 and 31 meter bands, to be used in the 49 meter band. Also a new directional 49 mb antenna is being

constructed at the Pori SW station and it is planned to commence 49 meter xnm's of the foreign svc in March, 1975. (via editor Charlie Wootten)

INTERNATIONAL WATERS According to Al Steward of Trans World Radio's DX-Special, the Swiss owners of Radio Nova International (ex-Radio - Nordsee International) have lost a court battle with Dutch officials. The Mebo II is or will be anchored in Holland while all five of the xmtrs are removed and sold at auction. This means that it will be some time before Mebo II will set sail to another port for some new fittings.

(very "newsie" Eric ... Eric Falkenham, I.)

MALAGASY Tananarive is now in the clear w/EE ending at 1600 on 17730. However, on 1/18, FF anmcts were hr'd to 1602 w/a sudden s/off.
(via DX'er Victor Jaar, Canada)

MALAYSIA BBC b/c's to Asia will be seriously curtailed if the Malaysian government refuses to renew the licence, which expires in March, 1975, for the Johore Bahru relay station. Although there is a chance that the Malaysians will grant a short extension, they were believed to be apprehensive about offering foreign b/c'ing facilities anywhere on their territory for fear of offending China. (Russell Spurr in Far EASTERN - ECONOMIC REVIEW, Nov. 15, 1974, P.30 ... via Glenn Hauser, OK)

FRANCE. The most recent sked fm Radio France (ex-ORTF) has been received by NASWA members Adam Gaffin, Bob Underdown, AK; Roger Legge, VA; Scott Reeves, ID; and Mike Willis, Australia.

EMISSIONS ONDES DECAMETRIQUES VERS L'AERIQUE

Radio Formula - w/no change
in formates, but a unified whoop-whoop-whoop sound w/IDs. So that's why
we hear (as of February) "R. Sels" on 11880 and 15110.

(excellent on the explanation Glenn ... DX'er Glenn Hauser, OK)
MONGOLIA Some folks say that the station on 6383 is Ulan Bator, Mongolia, and others say that it is Tay Bac, North Viet Nam. Our man in Australia, Mike Willis, says that everyone is correct - both Mongolia and North VN are on at the same time. Mike notes that UB is on fm 0900-1210. A North Vietnamese station is also on the freq at the same time, but does not sign off until past 1600. But Mike believes that this NV sta is not Tay Bac because it // is the regular Hanoi home svc on 7512 and 10068.

MEXICO There seems to be some confusion about the sta's on 11880//15110. They are not new, as some rpt, but reactivations of sta's which were regular during most of the 1960's. They used to ID as XERM (1500), XEMH (11880), and XERR (15110) or as "La RM", never "Rdf Comerciales" or "ARSE" which were merely previous corporate names. The 1500 kW sta, which is always the one duplicated on SW has undergone several changes recently. It had been R Tricolor for some time when SW was reactivated last August. It was but one of 6 AM sta's in the "Radio-Distrito Federal" group. The gp was renamed "Grupo - Oro" briefly last fall at about the same time the "R. Fiesta" format, long on 1470 (XESM) switched w/the commonly-owned 1500 R.Tri-color format, which then was on 1470; the previous calls remained attached to the same freq's; only the names and formats changed. Tricolor was ranchera mx, Fiesta was tropical. Then in Dec., the 6 sta's in the gp dropped or down played their previous slogans and became "R. Uno,- Dos Tres, Cuatro, Cinco, Seis", in order, and the gp was renamed "Organization-Radio Formula" w/no change sound w/IDs. So that's why and 15110.

MONGOLIA - continued: It is doubtful, though, that this is a regional station as 6383 is always a HS //.

MOROCCO RTM, Rabat, is now running all night on 6170, 6190, and 9615 and all are noted fm 2000 or earlier til 0930 or later in Arabic.
(DX'er Richard Wood, NY)

NIGER The Office de RDP TV du Niger (ORTN) now has a sked out which does not jibe w/the one which appears in the 1975 WRTH. Please update your WRTH as follows: E-F fm 0630-1500 & 1800-2300

Sats 0630-2400

Suns 0630-2300

Frequencies are 3260, 5020, 7155, 9575, and 9705.
(DX'ing Hank Michalenka, RI)

SPANISH SAHARA RTV de Sahara may be hr'd fm 0800-1705, 1800-1830, 1900-2400 on 7230 or 11205. (Signal Chaser Sam Barto, CT)

SIERRA LEONE The BBC World Radio Club said that the DW is testing fm Sierra Leone on 5980. No times were given. (Jeff Slaff, NY)

SOLOMON ISLANDS The SIBS in Honiara is testing on 5015 fm t/in at 0900 till t/out at 1000. This is ex-3995 and // to 9545 at this time. Rpts are welcome. (Mike Willis, Australia)

SRI LANKA SIBC has its EuropeanSvc in operation fm 1900 till 2000 on 15120, 11800, and 9720 in English. Give these freq's a whirl; Henry - Rockwood says that 11800 is fivers (SINFO 55555)
(Gladys Keller, NY and Henry Rockwood, OH)

TANZANIA Dar-es-Salam seems to have increased pwr. 5050 can be hr'd w/ celeste IS at 0300; at 0400 it is still at an excellent lvl w/Swahili. At 0400 news is hr'd in // to 4785, 4825, and 5050. However at 0425 check, 4785 was carrying a different pgm. (Victor Jaar, Canada)

TURKS & CAICOS ISLAND Turks is slated to b/c fm 1800-1930 and fm 2100-2200 on 4788. Look for them on Sats till 0400.
(Tom Gavaras, MN)

TURKEY According to Arthur Cushman's PNDXJB pgm, the Turkish sta's on 6900 and 6965 were hr'd around 0600 and I checked and sure enuff, both of these low-pwr'ed DX catches were hr'd. (DX'er Scott Reeves, ND)

USA According to the Jan. 28th edition of the NY Times, the VOA and RFE/R Liberty have been under consideration for a merger by a study gp, the "Panel on International, Education and Cultural Relations". Their recommendations, which include other operations of the USIA and the State Dpt's Bureau of Cultural Affairs, carry considerable weight in Washington and appear to stand a good chance of being implemented. The panel's chief, CBS's Frank Stanton, suggested VOA be given a separate charter fm the USIA, perhaps under the authority of a reconstituted Board for International Bc'ing, which presently oversees RFE and Radio - Liberty. Cost savings would accrue fm combining technical facilities and equipment of the VOA, RL, & RFE. The VOA has a budget of \$55 million, while RFE/RL gets \$50 million. FRENDX readers may recall this has been suggested before, but was blocked by Sen. J. Wm Fulbright, now out of office. The b/c'ing reorganization requires Congressional approval. Under the proposal, the VOA would retain its own editorial direction, separate fm RFE/RL. (via DX'pert Larry Magne, PA)

VOA An advisory committee to the USIA recommends construction of 2500 KW xmtr's for the VOA to obtain superiority over the 500 KW outfits of other major nations ... (let's hope not gang! DJ) (via DX'er Glenn Hauser OK)

USSR - FAR EAST UPDATES Please make the following pen & ink changes to last month's Soviet charts which appeared in LN:

5970 - Khabarovsk : now has Mayak svc being hr'd as early as 0600 replacing 0730 s/on rpt'ed last month.

9450 - Mayak pgm sta now signs on at 0900, vice 1000.

9575 - Mayak pgm s/on @ 0000, s/off @ 0830; QTH poss Blagoveshchensk

9790 - Siberian version of HS fm 0045-0800
11905 - Sta now being hr'd here fm*0130 to 0330* was at first believed to be Irkutsk - but is not. They carry pgm 1. Now they are very wk. (Soviet DX'pert Bill Davis, CA)

Just enuff room to say thanks to all of our contributors this month. All contributions to LN are most welcome. If you desire the return of your sked, please enclose a SASE. Please, all times in GMT. Also, don't forget to order your Chinese language report form today.

73 and Happy Listening.

(14)



LOG REPORT

SECTION - A

EDITOR: Bob Hill, WIARR/6
1626 Bonita Avenue
Berkeley, CA 94709

ASSISTANT EDITOR: Kevin Szot

DEADLINE: 15th of month

The recession that's been causing our economy to shrivel seems to have spread to Section A this month. Where did everybody go? Ah well, at least the quality stood up . . .

- 2340 NEW BRITAIN I. RWNB. 1133 mx, lang; 1204 EE ID; hrd to 1300. My first non-Latin on this band (Field 2/3).
- 2340 UNID. From 0020, M describing sporting event, I believe; P; soon faded (Field 2/4). (R. Nueva Esparta, Venezuela, was reported last month around 0800, 1000. BH).
- 2360 GUATEMALA. R. Maya de Barillas. 1145 lang, relig mx; P; // 3325 (Zilmer).
- 2380H COLOMBIA(?) R. Cordillera(?) 1046 LA mx. 2 X 1190? (Hauser 1/27).
- 2390 GUATEMALA. LV de Atitlán. 0234 SS, marimba mx; RTTY QRM (A. Miller). 1110-1118 neoranchera mx, dedications (Magne). (T) 1205-1225 SS, marimba mx so suspect Guatemala rather than Mexico (Abraham). 1215 SS, Guatemala-style mx; P (Zilmer). MD).
- 2400 BRAZIL. R. Educadora São José, W 0145 opera-type mx, 0146 M ID, talk; F (Henderson, MD).
- 2400 BRAZIL. R. Mossoró(?) 0945 enthusiastic ancr, tent ID; F; het from harm by 0956 (Hauser 1/27). (R. Educ. São Jose in Macapá, might sound like Mossoro. BH).
- 2400A BRAZIL. Unid. 0215 ID, ancts, LA mx; 0256 nx, items datelines São Paulo; 0301* (Tuchscherer 1/18, 25).
- 2420H GUATEMALA(?) R. 1210(?) 1240 rapid talk, hi-side QRM. 2 X 1210? (Hauser 1/25).
- 2440H COLOMBIA. R. Cordobesa. Clear ID's, M&W talk, s/off ancts, NA 0354*; no sign of YV (McNeil). 1047 cough-medicine ad; F; ID assumed (Hauser 1/27). 2 X 1220.
- 2440 VENEZUELA. R. Girardot. 0152 fast-talk description of sports event; F; some QRM (Henderson, MD). 1040 Venezuelan mx; F (Abraham). (ID hrd? Colombia on then. BH).
- 2446 REUNION. St. Denis. *0228 IS, 0230 "LM" s/on, M&W in FF; ID, meter-band, pgm info, into nx, then pops; P (Henderson, MD 1/18).
- 2450 PAPUA. RWH. 1223-1248 mx request pgm; mod levels somewhat reduced; F. Heard on good PNG days (Henderson, WA). Unid 1303, M, wk; prob RWH (Abraham). (Lang? BH).
- 2468 PAPUA. RND. 1215 C&W mx; wk but gradually improving to 1235* (Field 2/3).
- 2503 JAVA. RPKK, Bandung. 1400-1405 nx in Indo, 1415 ads. Move from 2495 (Tyson).
- 2745 N. KOREA. Sinju. 1145 KK mx, subdued KK talk; F (Willis). (Non-strident KK? BH).
- 2850 N. KOREA. Pyongyang. Clas mx, 1600 pips, ancts; // 3016 (H. Miller).
- 3140H S. KOREA. HLDA (FEBC). 1425 KK, 1429 chimes, 1430 CS ID by M&W; into CC. F; still there 1500. Best (only?) Asian harmonic hitting WCNA (Szot 2/9).
- 3165 JAVA. RKFD Kota Madya, Surabaya. 1150 TI, 1200 RRI nx relay; F/G (Henderson, WA).
- 3200 CHINA. PLA. 1134 CC opera; with RTTY QRN (J. Davis).
- 3204 JAVA. RRI, Bandung. 1242 Indo talk; F (Henderson, WA).
- 3215 VENEZUELA. Ondas Panamericanas. ID's, NA 0054*; bad CW QRM (Jones). 1137 seemed nx w/ bells à la Rumbo; F (J. Davis).
- 3220 CHINA. RF, HS1(L). 1616 P/F (Bowlsby). (Some pgm details, please! BH).
- 3222 BOUGAINVILLE I. RB. 1130 mx; wk. Didn't listen long; hrd before (Field 2/3).
- 3223 SWAZILAND. SNR. 1815-1830 EE, US rock, jingles, ads, ID's -- almost like a back-home stn (Buxton 1/19). 1958-2015 EE, pops, ancts (Padula 1/30).
- 3223 MALAGASY REP. Tananarive HS1. 0301-0315 pop, rock, native mx (Reeves 1/18). 0315 vernac, pops; G. Not // 3288 (Henderson, MD 1/18).
- 3235 INDIA. AIR, Gauhati. 0137-0149 Hindi chants; ute stn gone. No ID, but who else? Besides, "window" to SEA open (Reeves 1/18). (T) Hindi-type mx, local lang; VP; just bare QRK (Henderson 1/18). (Assume same time as Reeves. BH). (T) 1245-1255 sitar-type mx; F (Mayer 1/27). 1530 EE nx // 3375/4920; 1545 W in vernac not // the other 2 freqs; clear sig (Sparks 1/31). 1531 EE nx, 1546 AIR ID; G (Szot).
- 3238 IRAQ. Baghdad. 0310 AA-type chants. Varying from nominal 3240 on 1/18 (Reeves).
- 3240 ECUADOR. R. Turismo. Hrd 0130-0230, one morn *1100, two morns 1130 TI w/ seeming s/on (Field). (TBS says *1030, WRTH/75 says *1200. Our guess: their s/on time depends on what time the engineer gets to the studio! BH).
- 3242 UNID. 1425 M singing, hard-to-describe mx; 1510 seemed Indo talk. P; QRM (Bowlsby 2/7). (Why not RRI, Ambon? BH).
- 3245 PAPUA. R. Kerema. 1301* "GSTQ"; F/G (Abraham).
- 3245 VENEZUELA. R. Libertador. 0125 (Jones) 0307 (A. Miller) talk, LA & EL mx. (T) 2325 SS, then EE! 2325 EE DJ played Trini Lopez song, then 2330 EE nx. RTTY QRM. No def ID, but what else could it be? (Charnes 1/17).
- 3250 KALIMANTAN. RRI, Banjarmasin. 1510 Indo nx; P (Bowlsby 2/7).
- 3250 S. AFRIKA. SABC. 0030-0234 All-Night Svc; EE, pops, ads, EL mx; // 3980 (Bowlsby 1/17). Moritz, Jones, Patterson).

- 3255 VENEZUELA. LV de El Tigre. 0148 talk sounding like speech; F (Courtney). 0318 Rumbos net ID, stn ID, anthem 0322*; F (Bowlsby). 1004-1026 farm pgm; G (Gaffin). 1023 LA mx; F (Jones).
- 3257 UNID. AIR(?) 1432 W in EE(?) nx; 1435 gone. 1512 RT Asian vocals; P. Could be Delhi, 3255, although that's always been right on 3255 (Bowlsby 2/7).
- 3260 CHINA, Kweiyang, Kweichow. 1456 revolting CC mx w/ sound effects -- trash-can lids banging, W screaming, etc.; G (Sztot).
- 3260 ECUADOR. LV del Rio Carrizal. Ec mx, 0300* ID, NA; P. 0303 carrier off (Jones).
- 3260 NEW GUINEA, R. Madang. 1237 Pidgin, S. Seas mx; VP (A. Miller 1/18).
- 3260 NIGER, Niamey. 2210-2220 FF, Af mx, short talks; VP. // 5020 (Mayer 1/18);
- 3265 MOZAMBIQUE, ROM, L.M. 0340 M, mx (Abraham). (Lang? Type of mx? Please, gang, let's have more than the bare bones. BH). 1800-1810 EE, US rock, sounding much like Swazi Music R.; VG (Buxton).
- 3270 CHINA, RP. 1430 EE to India; 1500 EE nx; F/G, This killed Quetta (Henderson, CA). 1452 W in EE ctry, 1453 "Int'l" to 1453*; P. Carrier stayed on after s/off (Sztot).
- 3270 ECUADOR, R. Cosmopolita. 0430 Ec mx, ID; very long anthem 0440*; RTTY (Patterson).
- 3270 (T) PAKISTAN, Quetta. 1428 Pak mx, 1429 Peking OC knocked 'em out; F until then. Same situation happened to me here two years ago (Henderson, CA 1/24).
- 3270 (T) PAPUA, RSH. 1200-1225 mx hr occasionally thru noise; VP (Field 1/16).
- 3275 VENEZUELA, R. Mara. 0002-0005 Arabic mx & talk; SS ID, into LA mx (Jones 1/27). 0507 SS talk about carnival; G (McCoy).
- 3277 JAVA, RRI, Jakarta. Nx, ID, anthem, 1515 into pops; F (Henderson, WA 1/21).
- 3277 KASHMIR, AIR, Srinagar. 1600-1615 EE ctry, ID; VG (Buxton). (Darrell, this is an AIR stn operating in the India-controlled part of Kashmir. Azad Kashmir R. is on from the Pakistan-held sector. BH).
- 3280 ECUADOR, LV del Napo. 0305 relig talk, ID, freqs; no anct or NA 0325*; F level w/ bad net QRM (Patterson). UnID 0320* NA (Wallace). (Likely Napo. BH).
- 3286 JAVA, RRI, Medan. 1525 light orch mx, Ind ancts; F (Henderson, WA 1/22).
- 3288 MALAGASY REP, Tananarive HS2. 0312 local mx, 0315 FF dialog; rare (Reeves 1/18). Also 0312, European pops, FF ancts; F (Henderson, MD).
- 3290 CHINA, RP HS2(L). 1440 W in CC vocals; F (Bowlsby).
- 3290 GUAYA, CBS "Action R." 0157 EE, pops, dedications; 0341* anthem (not "GSTQ"). (Jones, J. Davis, Patterson, Courtney, Wallace). 0415 EE, mx; G (Cabral 1/23). Hrd as late as 0600 last week of Jan. -- relay of cricket matches (Sparks, Reeves).
- 3295 VENEZUELA, R. Trujillo. 0232 "Música en la noche," ID's; 0258* NA. Much QRM from CBS, SSL, RTTY (Patterson). 1035-1100 LA mx, ID's; G (Gaffin).
- 3295 UNID. 1513 lang (poss Indo); F (Bowlsby 2/7). (Poss AIR, sked *1430 Urdu. BH).
- 3300 BELIZE, RB. 2330-0505W EE, pops, nx, wx; varies P/E. // 834 MW (Perdue, Reeves, Overcamp, Tuchscherer, Jones).
- 3300 (T) BURUNDI, Bujumbura. 0415 unID lang; F/G. Nil hrd on 6140 (Jaar). (Where was Belize, Victor? BH).
- 3300 CHINA, PLA. 1035 CC, 1045 ID's, polemics by W; F under TGNC. // 3400 (Magne 2/1). 1400 and 1615, a regular now (Bowlsby). (Pgm details, please. BH). (Patterson).
- 3300 GUATEMALA, R. Cultural. 0427 SS, US pops; F (Jones). 1156 SS sermon, hymn; 1200 ID.
- 3305 SUMATRA, RRI, Bukittinggi. Nx, anthem, choral Koran chants, RRI Bukittinggi ID as per ARDXC Indo report-form prior to 1530*; 4884.5 inaudible; no //s (Henderson, CA).
- 3307 RHODESIA, Gwelo AF Svc. 0340 AF songs, lang; sig not bad. Another day 0410 nx // 3396 (Jaar). 0355 EE talks, EL mx; 0400 nx, 0420-0425 EE & Afkns; ute QRM (Courtney, Moritz, Straus).
- 3315 ECUADOR, R. Pastaza. 0300* ID's, freqs, anthem (Jones). 0516-0605* continuous Andean mx; not one anct during whole period; NA at s/off (Sparks 1/16).
- 3315 INDIA, AIR, Bhopal. 1448 MW in Indian(?) lang; mentions of "India Radio"; P. Lang sounded more SEA than SC (Sztot).
- 3315 MARTINIQUE, Fort de France. 2348-2355 W in FF, mentions of FdF; FF pops; F (Mayer).
- 3316 SIERRA LEONE, Freetown. 2308-2322 EE, pop & soul mx, ID, GMT TC (McNeil). (T.) 2315 Af mx, unID lang; CW QRM, QRN; wiped out by LA *2329. Next day 2310* (Perdue 1/25).
- 3320 N. KOREA, Pyongyang HS. 1448 vocals, W ancr; F (Bowlsby). (Presume KK. BH).
- 3320 S. AFRICA, SABC. 2210 EE by MW; G (Abraham).
- 3320 UNID, LA. 0340 SS or PP ancr, march mx, SS or PP pops; P (Bowlsby 1/28). due.
- 3325 BRAZIL, R. Borborema. 0115 ID (pronounced as "Bo-bo-AH-ma") under hvy QRM (Per-
- 3325 ECUADOR, Ondas Quevedenas. 0504-0516 LA pop & Ec mx, TC's, ID; QRM (Patterson).
- 3325 GUATEMALA, R. Maya de Barillas. 0205 SS talks, 0400 "Onward Christian Soldiers" & ID, then hoofbeats, horse-whinny; P (Courtney) (Musta' been the Loone Ranger! BH). 1155 Indian lang, SS ID, hymn; P/F (Zilmer, Patterson). 2355 marimbas, ID (Perdue).
- 3325 W. IRIAN, RRI, Jayapura. Ending wayang kulit play, ID, 1420* Pacific Islands Melody; VG; // 3905 (Henderson, WA 2/1). (Dan advises that "Love Ambon" is played only before an RRI nx relay; it is not the theme hrd at s/off of RRI stns. BH). UnID Indo 1329 w/ jazz piano, W vocals, Indo theme 1403*. Best Indo sig ever hrd -- seemed like 50 KW (Tuchscherer).
- 3330 PAKISTAN, Peshawar. 1500 nx in Urdu(?) // 3380 (prob Karachi) (Willis 1/4).
- 3330 RWANDA, RR. #0328 seemed anthem, 0330 W talk, Af chants, past 0426; seemed // 6140 but threshhold level (Reeves). UnID Af 0330-0345 Af mx mix CHU (Perdue 1/25 ff).
- 3331 COMORO IS. Moroni. 1825 local songs; ancts in Comorian (Tyson).
- 3335 NEW GUINEA, R. East Sepik Dist., Wewak. 1135-1150 lang, pops, chants; F (Perdue).
- 3335 UNID. 0740 SS; poor sig so no ID. Ecos del Orinoco listed, not reported (Abraham).

- 3336 SENEGAL, Ziguinchor. 0743 FF ID, 0745 FF mx pgm; G (Henderson, MD 1/18). (T) 2214 Af mx, FF talk; ID & NA 2303*. Sometimes mix w/ CHU (McNeil).
- 3339 ZANZIBAR, RTZ. *0300 choral mx, lang, AA-type chants, Af mx; 0400 seemed nx. Bad CW QRM at times (Perdue, A. Miller, Gavaras, Henderson MD, Field, Wallace, Mayer). 1815 Swahili talks, songs, discussions (Tyson). 1950 AF songs, 1953 AA ancts, 1959* w/ AA ancts, anthem (Padula). (Never thought I'd see this become commonplace! BH).
- 3345 HAITI, 4VSO. 1030 SS ID, then relig pgm; F (Jones). (T) 1159-1205 two M in Creole FF; extreme het & CW QRM (Patterson).
- 3345 PHILIPPINES, FEBC. 1345-1404 EE relig pgm; F but CW QRM (Cabral 1/16).
- 3350 GABON, Franceville. 0500-0510 FF nx; F. WRTB/75 says *0630 (Mayer). (Right, but TBS Update #3 shows *0430 and says irregular operation, BH).
- 3355 ANGOLA, R. Ecclésia. 0443-0550 W in FF, Af mx; G w/ fading. // 4985 (Reeves).
- 3355 INDIA, AIR, Kurseong. 1520 Hindi talks; G under ute (Henderson 1/21).
- 3355 VENEZUELA, R. Valencia. 0102-0304* ID's, ads, LA mx (A. Miller, Tuchscherer). From 1100 w/ mx; ID seems R. YVLC rather than R. Valencia (Field). 2250-0320 same stuff (Reeves, Mayer, Charnes). (Reeves 1/15)
- 3355 UNID, LA stn 0016-0025 mix Valencia till lost; mention of "Dominicana." La Romana?
- 3360 GUATEMALA, LV de Nahuatlá. 0345-0435* talks, ID's, NA at s/off (Wallace, Courtney, Jones). 1206-1214 miranda & ranchera mx, TC's, ID; F w/ het, RTTY (Patterson).
- 3365 SWAZILAND, TWR. Relig pgm in lang, organ mx; 0400 EE ID; strong. // 6072 (Sparks).
- 3365 VENEZUELA, R. Puerto La Cruz. 0350 LA mx, ID; RTTY QRM (Wallace).
- 3370 MOZAMBIQUE, RCM, Beira. 1757 EE pops, lang (prob listed Chumbo), 1759 gongs, ID's for Beira; into AF rhythms (Tyson).
- 3375 BRAZIL, R. Olinda Pernambuco. 0315-0335 LA mx, ID; G (Tuchscherer 1/20).
- 3375 INDIA, AIR, Gauhati. 1530 EE nx // 3235/4920; at 1545, 3235 changed to lang pgm but 3375 continued w/ EE cmtry; strong & clear sig (Sparks 1/31).
- 3375 UNID, 0420 usual LA format of mx & excited SS talks; hr "R. Lufinta" (or something similar) at least 15 times; and SW & MW freqs at 0528* (Wallace).
- 3380 ECUADOR, R. Iris. Again making rare appearance (and so early in the year) 1131 w/ block ads, ancts (Willis 2/4).
- 3380 GUATEMALA, R. Chortíts. 0200 FI, ID, Latin EL mx, talks; F (Courtney).
- 3380 KASHMIR, Azad K. R. (T) 1500 relay of R. Pakistan nx in Urdu-type lang; x-3915V (Willis). (T) 1523 Pak chants; G (Henderson, WA 1/22). 1540 ME-type mx, talk in local lang, same as last year at this time. No ID noted (Sparks 1/24).
- 3380 MALAWI, Blantyre. 0332 lang, Af mx, MBC mentioned; F (McCoy). 0345-0415 Chichewa talks, Af mx, fading; P (Lineback 2/5). (Henderson, WA 1/21).
- 3385 BALI & LESSER SUNDA IS., RRI, Kupang. Nx, s/off ancts, RRI theme 1515-1520*; G
- 3385 FR. GUIANA, Cayenne. 0430 FF by M&W (Straus). 0920-0940 M&W in FF, orch pop mx; 0930 pips, ancts, nx; E. Hrd another day till 1000 (Perdue).
- 3385 NEW BRITAIN I, R. Rabaul. 1145 lang, Islands choral mx; F (Perdue). Lang anct, "GSTQ" at 1300*; G (H. Miller).
- 3385 VENEZUELA, R. Barcelona. 0342 talks, chimes, ID's; anct & NA 0401* (Bowlsby). 1026 carrying R. Rumbo pgm, 1030 ID, mx; F/G (Jones, Moritz).
- 3390 ECUADOR, R. Zaracay. 0420 Ec mx, ID, 0500*; CW QRM (J. Davis, Patterson).
- 3392 W. IRIAN, RRI, Fak-Fak. 1305 RRI nx, then mx; 1320 ID; P under ute (Henderson, WA).
- 3395 (T) BALI & LESSER SUNDA IS., RRI, Singaraja. 1230-1240 definite Indo talk, no ID; P (Mayer 1/26). (Sparks, Patterson, Bowlsby).
- 3395 VENEZUELA, R. Universidad. 0215-0359* pops, LA & EL mx, TC's, ID's (McNeil, Courtney).
- 3396 RHODESIA, Gwelo Gen. Svc. 0400 EE nx, ID, ads, pops, wx; hr past 0435 (Lineback, McCoy, Patterson, M. Smith, Straus, Perdue).
- 3400 CHINA, PLA. 1115 CC; F (J. Davis). 1207 CC by M&W, whining singing (Jones). 1226 same; F (A. Miller). 1230 ditto (McNeil). 1436 likewise; P (usually strong) (Szot).
- 3401 PAKISTAN, Rawalpindi. 1530 AA-type chants over PLA; G (Henderson, WA 1/21). 1700-1720 EE nx, ID, cmtry by W, TC; E (Buxton 3400).
- 3413 SUMATRA, RRI, Medan. 1546 Indo, 1550 ID, 1600* no ID; F. // pwfl 4764 (Szot).
- 3417 UNID, 0440 W sounding much like HCJB's RR-lang gals; 0500 no time beep or ID -- just went on talking (Earhart 1/23). (Likely a vx BC stn, BH).
- 3420 SUMATRA, RRI, Medan. 1510 Indo mx; P (Bowlsby 1/3). (More likely next item, BH).
- 3421 JAVA, RRI, Malang. 1420 mx, 1500 RRI nx, 1520 W; into light orch mx; 1545 RRI ID by W; F (Henderson WA, Szot). (Is a move from 3400, BH).
- 3422.3 BRAZIL, R. Educ. de Guajara (L). 1015-1035 FF, M host, lively rural rhythms; no ID readable; CW & SSB QRM (Magne 2/1).
- 3424 UNID, LA 0350 M in slow PP or SS (Bowlsby 1/28). (Possibly the above? BH).
- 3425 BRAZIL, Unid 0145 PP, results of poll or election; "Acresana" & "Brasileira" mentioned (Tuchscherer 1/27). (Surely Guajara, BH).
- 3425 NEPAL, Kathmandu. 1151-1258 M&W, native mx; P (M. Smith). (T) 1530 M ancr, Asian vocals, 1600 FO (Bowlsby).
- 3436V BOLIVIA, R. 27 de Diciembre. 0205 LA mx, brief intros; 0230A ID; hr to 0305. Freq varies 3436-3437. Ute QRM ever-present (Tuchscherer).
- 3450 CHINA, RP HSI. 1500 F; // 3220 (Bowlsby). (Pgm details, please. BH).
- 3459 BALI & LESSER SUNDA IS., 1523 light pops, few ancts; P at fade-in but better at 1600* w/ classic ID "Inilad Radio Pemerintah Daerah Kabupaten Bima, Sumbawa, gelombang 86, 7 meter." 1st NA logging? (Henderson, WA 1/22).
- 3462 JAVA, RKPDK, Pasuruan. 1st NA logging of this stn on 1/31 w/ RRI nx relay; into light Indo mx pgm; F/P (Henderson, WA). (Time? BH).

- 3495V BOLIVIA, R. Alfonso Padilla. 2342-0002 LA & US pops. Also hr'd four other days between 2330 & 0100, when usually covered by CW. Drifts to 3497 (Tuchscherer).
 3515 Ecuador, R. Centro. 0237 W vocals, ancts, ID's, 0300* anthem. Good sig for 200W (Barto 2/1, Henderson, MD 1/18 3516).
 3535 CHINA, PLA. 1425-1505 // 4840 et al.; F (Bowlsby).
 3551 ASIATIC RSFSR. 1030 W in RR; F. Wrote E. Stepanova to ask QTH (J. Davis). (Szot).
 3570 ASIATIC RSFSR. 1457 RR, Mayak pgm; 1500 six pips, W in RR nx; // 4040. X-3551.
 3607 JAPAN, NHK HS, QTH unk, 1150 JJ ancts, light mx (Willis). (TBS: Kawaguchi. BH).
 3640 CHINA, PLA. 1250 in CC; always a good sig here (Abraham).
 3668 PONT. TIMOR, Dfli. (T) 1210 M, too wk to ID lang; this on 1/19 after many tries (Abraham). 1459 PI talk; F w/ ham CW QRM (Szot). (WA).
 3778 BALI & LESSER SUNDA IS. RKPDK, Sumbawa. 1236 Indo mx, 1300 RRI nx; F (Henderson).
 3830 CHINA, RP. 1507 NSW in CC nx "in the Peking way"; G (Szot).
 3892N N. KOREA. Pyongyang. 1525 FF cmtry; F (Szot). 2010 EE (Tyson). (Is X-3696. BH).
 3905 INDIA, AIR, Delhi. 1550 Indian mx, occasional ancts; vy loud (Willis 1/13).
 3905 KALIMANTAN, RRI, Palangka Raya. 1432 nonstop US CSM mx, 1500 ID "RRI Palangka Ray" and into warta berita from Jakarta (Henderson, WA).
 3905 W. IRIAN, RRI, Jayapura. 0953 in Indo; vy nice sig when no hams (Henderson, MD).
 3910 JAPAN, FEN. 2015 EE pops & ancts (Tyson). both 1/18).
 3916 KASHMIR, AKR. *0115 in local lang, 0131 chants past 0148 (Henderson MD, Reeves --).
 3919 S. KOREA, Seoul. 1425 lang talk; G (Cabral). *1958 anthem, 2000 KK ID, nx (Padula, Tyson). (Has moved up slightly from 3918. BH).
 3925 JAPAN, NSB, Tokyo. *2030 JJ ancts, Spanish guitar mx (Tyson).
 3925 PAPUA, Pt. Moresby. 1350 ls. mx, M; // 4890 (Abraham). (Language? BH).
 3940 CHINA, Wuhan, Hupei, 1010 W in CC; ham QRM (J. Davis).
 3945 NEW HEBRIDES, R. Vila. 0820 lang, melodic choral mx, M vocals; 0907 and 0911 ID's (Perdue). 0805 FF pops on 1/8; best ever. Also 1/16 to 0907* (Bowlsby). 0845 FF, mx, no hams; still going 0940. My 188th country (Cabral 1/21). 0857 FF, 0900 ID. Best I've ever hr'd this one (Henderson, CA). (And so another formerly rare one becomes a garden-variety item! BH).
 3945 PAKISTAN, Karachi. 1930 AA talks & mx to 2000*. Is Link Svc, X-4735. Then, at 2015, carries FF to W. Af., poss replacing 7290 for this xmsn (Padula).
 3952 S. AFRICA, SABC. 1945-1950 Afkns, pops; hetting w/ BBC/3952.5 (Padula 1/22).
 3960 ASIATIC RSFSR, QTH unk. 0930-0940 W ancts; modulation odd -- between SSB and normal mode (Willis 1/13). (Prob carrier + one sideband. BH).
 3960 W. GERMANY, R. Liberty. 2100 RR ID; X-3990 (swapped freqs w/ RFE) (Padula 1/31).
 3964.5 IRAQ, Baghdad. 0123 AA chants; G when hams not on freq (Henderson MD, Reeves 3964 -- both 1/18). (If nominal 3960, is change in sked. BH).
 3965 S. AFRICA, SABC. 1930-2000 EE, clas mx concert (Padula).
 3980 S. AFRICA, SABC. All Night Svc 0125-0405; EE & Afkns, ads, variety of mx; big sig // 3250/4810 (Bowlsby, Tuchscherer, Meehan, Zilmer). Springbok R. 1925-1930, EE ancts, modern mx (Padula).
 3985 ECUADOR, Escuela R'fonicas Pop. 1130 LA & Ec mx, ID's; pretty regular (Perdue).
 3985 SWITZERLAND, SBC. 0635-0700 EE, nx, clas mx; G (Atkins). *1415 FF, mix Blak. 1:15 AM here; most unusual reception! (Padula).
 3990 W. GERMANY, RFE. 1930. 2000 ID, 2100+ FO. X-3960 (see R. Lib.) (Padula).
 3995 S. AFRICA, SABC. 0400 EE nx, mx; F (Zilmer).
 3995N W. GERMANY, DW. 1915-2100+ GG pgming atop SABC & RFE. Poss still experimental svc X-3970. Not shown in DW engineering sked or BBC MS (Padula 1/22). 0400 IS, W anct in GG, M in nx; F (Farhart 1/23).
 4020 CHINA, RP. 1154 CC by W, 1200* contrary to TBS sked (Tuchscherer 1/28).
 4030 ASIATIC RSFSR, Anadyr. RM HS 0332 // 9500; P (Bowlsby).
 4040 ASIATIC RSFSR, Magadan. 1245 RR; F (Mayer 2/1).
 4060 (T) PAKISTAN, Islamabad. *1415A Indian SC mx, ancts; prob switched freqs (Willis).
 4066 W. IRIAN, RRI, Merauke. 1304 Indo talk, 1320 pops after RRI Merauke ID; F. I may have to develop new technique to get this one verified! (Henderson, WA).
 4080 MONGOLIA, R. Ulan Bator. 1400 MM nx, 1420* anthem; // 4762/5053; ute QRM on 4078. At last -- after 8 months of trying (Willis 1/15). (Formerly 4085. BH). (WA).
 4089 JAVA, RPKD, Blitar. 1531 mx request pga, 1557 ID, 1600*; F over utre (Henderson, 4115V
CLANDESTINE, VRPR. 1025 KK songs, talks // 4552 (Padula 4120). 1220-1230 KK talk; P (Mayer 1/30).
 4250 CHINA, RP. HS around 1400-1500 in CC, usually F (B. Davis).
 4273 N. KOREA, Kanggye. 1235 KK, local mx; F (Mayer 4275 1/30). 1310 KK ancts; VG sig and is best of LF Koreans. Am sure it relays VRPR/4115 at times (Willis 1/22).
 4330 UNID, CC stn 1240-1250; P (Mayer 1/30). (Is PLA // all the others. BH).
 4376 UNID, Another CC stn 1230-1240; long talk by W; F (Mayer). (Is PLA/4380 // above).
 4395 ASIATIC RSFSR, Yakutsk, 0935 HS in RR // 4485. Unusual RR day (Willis 1/13).
 4425 BOLIVIA, R. Paititi. 0331-0415* LA mx, two ID's; SSB QRM (Tuchscherer 1/18, 20).
 4485 ASIATIC RSFSR, Petropavlovsk (Kamchatka). FI getting later -- now around 0400 to 0430. Has local pgm (RR) 0630-0700 Wed & Fri, 0630-0800 Mon, Tues, Thurs. Local ID 0630, 0645, 0700 (B. Davis). 0935 RR (Willis 1/13). (T) 1150-1200 RR, clas mx; F (Lineback).
 4525 CHINA, Ikechao, Tunsheng, Inner Mongolia. 1350 CC radio drama; F (Szot).
 4552 CLANDESTINE, VRPR. 1020 KK songs/talks // 4120. Listed 4557 in BBC MS (Padula).
 4600 SULAWESI, RPKD, Donggala. 1300 nx from either Jakarta or Ujung Pandang, then pops; was // 4719 during nx; G. Heard 1st time NA (Henderson, WA 1/31).



North American Short Wave Association

RADIO COUNTRY LIST

revised edition - 3/1/75

SCOPE This list is designed for use by shortwave broadcast band (SWBC) listeners.

PURPOSE A standard for NASWA Scoreboard rankings, contests and awards, plus any additional record keeping uses desired by the individual listener.

POLICY The major flaw in most radio country lists is that they attempt, in determining what shall be and what shall not be counted as a country, to set certain fixed criteria. Such criteria must take into consideration at least three factors: politics, geography and certain hobby traditions. However, in practice, these factors result in unresolved conflicts in establishing rational and consistent criteria. For example, political situations change rapidly, geopolitical borders often shift; the result being that radio country lists change and what is a countable country today when you hear it may have to be deleted from your log next year. As a result, such lists, supposedly based on fixed geopolitical criteria, in practice cannot strictly follow a set of "rules" and still be fair to all listeners. Most existing lists, therefore, to be acceptable to their users, have exceptions to the rules; certain arbitrary decisions are made. Despite the elaborate criteria, ultimately these lists contain some countries arbitrarily selected.

The NASWA radio country list is not based on any fixed criteria for the above reasons. It is purely arbitrary, with but one aim in mind: to provide SWBC listeners with a maximum number of target areas, consistent with a fairly broad, but reasonable approach to what can be considered radio country, to tune and verify. It contains only radio countries which have had shortwave broadcast operations at some time since the end of World War II. Purists may object to the pragmatic basis of the list, but in the end, a radio country list has only this justification: to provide a common standard for DXers and an incentive for them to keep tuning for a new country.

So the NASWA radio country list has been compiled on this basis, with consideration given to the experienced DXer, who can count in his log those stations heard long ago which are no longer on the air; and the newcomer, who can count countries which politically ceased to exist some time ago. Reception of foreign radio stations, after all, has relatively little to do with political boundaries and independence dates. The list contains over 200 countries. It is safe to say that no one in the hobby has ever heard, much less verified, all of them. Of these, more than 90 per cent still are broadcasting on shortwave, giving the newcomer and oldtimer alike a wide range of targets to tune for.

TIME There are no cutoff dates in the list. Only one date need be considered by its users: September 1, 1945, approximately the end of World War II. Reception of a station at a particular location will be counted regardless of the date of the logging, provided it is after September 1, 1945.

LISTINGS Initial country reference in the list is to the name of the area as of 1945. In parentheses, following the initial reference, are subsequent names of the country since that time, with the last reference the present country name. This may seem confusing to the newer DXer, but means that the entire list need not be re-alphabetized following list changes and/or additions.

COMMENTS Additions and changes to the list will be made, when appropriate, by the NASWA Country List Committee. Countries may be added, parenthetical name changes made, but there will be no deletions from the list as a result of cessation of station operations or geopolitical factors. Questions about the use of this list may be directed to the NASWA Country List Committee, c/o NASWA Headquarters.

NASWA STATION COUNTING RULES

What constitutes an SWBC station? The NASWA Country List Committee has prepared the following guidelines for members' use. Like the country list itself, these rules are a combination of logic, tradition and feel. In other words, the decisions are admittedly arbitrary, but the committee has attempted to apply reason and fairness in all cases. The guidelines have been drawn up to allow a uniform basis for listing stations heard and verified in the NASWA FRENDS Scoreboard, as well as for personal operational use of members.

- (1) An SWBC station shall be a station whose fundamental frequency lies in the radio spectrum between 1605 and 30000 kHz whose broadcasts are intended for reception by the general public. This definition includes standard frequency and time stations with voice announcements, satellite stations in space which transmit intelligible material and utility stations which periodically carry broadcast programming intended for general reception.

This definition excludes spurious and harmonic radiation of broadcast signals whose fundamental frequency lies outside the radio spectrum range between 1605 and 30000 kHz, even though the frequency of the received spurious and/or harmonic signal lies within that range. Reception of harmonics of medium wave broadcast stations, heard within the defined shortwave frequency range, shall not be considered SWBC stations. The definition also excludes satellite stations transmitting only telemetry data and/or CW Morse signals; excludes utility stations transmitting voice mirrors, point-to-point relays and other utility type transmissions; excludes aero, marine or public service stations carrying weather reports, ship-to-shore, military communications, etc.

- (2) Each transmitter site of a broadcasting organization shall constitute a separate station. Any move in transmitter site shall create a new station. When a broadcast organization uses multiple transmitter sites, unless the organization is widely known to use a specific transmitter site on a specific frequency at a specific time, verification should show transmitter site before credit is claimed. Although many broadcast organizations operate several transmitters at a given site, the near impossibility of identification of the various transmitters at that given site rules out counting separate transmitters at that site as separate stations.
- (3) Different services of the same broadcast organization do not count as separate stations; i.e., the CBC Northern Service, Radio Peace and Progress, Radiostansya Atlantika, I.C.R.C., Korea Radio, CBC over FEC, etc. Of course these stations may be counted in themselves, but the organization owning and operating the transmitter used could not be recounted when using that site itself.
- (4) Point-to-point feeds of programs from an organization's main station to its relay station will not count as a separate station.
- (5) Transmissions of a single broadcast organization on various frequencies may only be counted once. The use of multiple frequencies does not create as many new stations as frequencies used.
- (6) A change of station ownership through sale, independence of the country or revolution will constitute a new station when coupled with changes in call or slogan.
- (7) In cases such as the Vatican and Monaco, where studios are in one country as announced on the air, but transmitters are located a few miles away in a different country, the studio location will count for country credit, providing no alternative exists to hearing the country in question. Similar cases which may occur in the future will be considered on a case-by-case basis by the NASWA Country List Committee.

PRACTICAL USE OF THE COUNTRY LIST

In general, the factor of paramount importance is the geographical location of a station's transmitter, as long as reception is after September 1, 1945. In counting a country, political considerations are of much less importance. Here are some examples:

- (1) Logging the station at Lusaka, Zambia counts as Northern Rhodesia (Zambia), regardless of when (after September 1, 1945) you hear the station.
- (2) Logging the station at Mogadishu, Somali Republic, counts as Italian Somaliland (Somali Republic) whether received prior to 1960, when politically it was still Italian Somaliland, or after 1960, when it has been, politically, Somali Republic. Thus the longtime listener can count a country on the basis of a logging made many years ago, but the newer DXer has the opportunity of hearing the same country today. But it can be counted only once. The longtime listener who receives the station today as well as many years ago, can count ONLY one country for his two loggings.
- (3) Logging a station at Enugu, Nigeria counts as Nigeria (Biafra)(Nigeria), regardless of when (after September 1, 1945) you hear the station. The veteran DXer who heard Enugu years ago, heard it a second time while independent Biafra existed and, a third time, today, when politically the area again is part of Nigeria, can ONLY one country. The newer listener today can count the same country even though, politically, Biafra no longer exists. This, clearly, benefits the newer DXer who may have entered the hobby long after Biafra ceased to exist as a political state.
- (4) Logging a station at Goa, now part of India but once a Portuguese possession, prior to 1960, counts as Goa (India). Goa no longer has an SWBC station and cannot be heard today. In balance to the situation in example (3), this benefits the veteran DXer who still may count an excellent past logging even though political events have caused a country to cease to exist.
- (5) Logging VOA stations at Greenville, Bethany and Dixon, plus relay stations at Monrovia, Liberia, and Tinang, Philippines, counts as three countries; United States of America, Liberia and Philippines. Station counters, however, may tally five stations, based on the separate transmitter location rule.
- (6) Logging Cable and Wireless West Indies, Ltd., transmitting a repeated voice identification tape, indicating its location as Bermuda, does not count as a shortwave broadcast station. It is a utility transmission; not SWBC.

HIC/VIC TOTALS

<u>ASIA</u>	= HEARD	_____	VERIFIED	_____	
<u>AFRICA</u>	= HEARD	_____	VERIFIED	_____	
<u>ANTARCTICA</u>	= HEARD	_____	VERIFIED	_____	
<u>EUROPE</u>	= HEARD	_____	VERIFIED	_____	
<u>NORTH AMERICA</u>	= HEARD	_____	VERIFIED	_____	
<u>OCEANIA</u>	= HEARD	_____	VERIFIED	_____	
<u>SOUTH AMERICA</u>	= HEARD	_____	VERIFIED	_____	
<u>TOTALS</u>	* HIC	_____	VIC	_____	
NUMBER OF STATIONS HEARD		_____	NUMBER OF STATIONS VERIFIED		_____

<u>COUNTRY</u>	<u>STATION LOCATIONS</u>	<u>ACTIVE</u>	<u>NOTES</u>	<u>CONT.</u>	<u>HRD</u>	<u>VFD</u>
1. Aden (South Arabian Protectorate)(Republic of South Yemen)	Aden	X	Independent republic since 11/30/67	AS	—	—
2. Afghanistan	Kabul	X	-----	AS	—	—
3. Alaska	Anchorage, Adak, etc.		Alaska Communications System operated on SWBC circa 1945-1946	NA	—	—
4. Albania	Tirana, etc.	X	-----	EU	—	—
5. Algeria	Algiers	X	-----	AF	—	—
6. Andorra	Andorre-la-Vieille		Inactive on SWBC since late '60s	EU	—	—
7. Anglo-Egyptian Sudan (Sudan)	Omdurman	X	Anglo-Egyptian Sudan to 1/1/56; Sudan since	AF	—	—
8. Angola	Luanda, etc.	X	Portuguese overseas province; independence expected in late 1975; including Cabinda	AF	—	—
9. Antarctica	McMurdo Base	X	AFRTS station since mid-1974	AN	—	—
10. Antigua	St. Johns		Inactive on SWBC since about 1961; Anglo-German relay station planned	NA	—	—
11. Argentina	Buenos Aires, etc.	X	-----	SA	—	—
12. Armenian S.S.R.	Yerevan	X	U.S.S.R. union republic; programs also relayed by stations elsewhere in the Soviet Union	AS	—	—
13. Ascension Island	Ascension Island	X	BBC relay station	AF	—	—
14. Asiatic R.S.F.S.R.	Magadan, etc.	X	Asiatic portion of U.S.S.R. union republic	AS	—	—
15. Australia	Melbourne, Perth, etc.	X	-----	OC	—	—
16. Austria	Vienna, etc.	X	-----	EU	—	—
17. Azerbaijan S.S.R.	Baku, etc.	X	U.S.S.R. union republic	AS	—	—
18. Azores	Ponta Delgada	X	Portuguese overseas province	AF	—	—
19. Bahamas	Nassau		Inactive on SWBC since 1946	NA	—	—
20. Balearic Islands	Majorca, etc.		Inactive on SWBC since early '50s; part of Spain	EU	—	—
21. Bali and Lesser Sunda Islands (Indonesia)	Denpassar, Kupang, Mataram, etc.	X	Indonesian island group, including Lombok, Indonesian Timor, etc.	AS	—	—
22. Barbados	Bridgetown		Apparently inactive on SWBC; in the '50s and early '60s broadcast sports events irregularly	NA	—	—
23. Basutoland (Lesotho)	Maseru	X	Basutoland to 10/4/66; Lesotho since	AF	—	—
24. Bechuanaland (Botswana)	Gaborone	X	Bechuanaland to 9/30/66; Botswana since	AF	—	—

COUNTRY	STATION LOCATIONS	ACTIVE	NOTES	CONT.	HRD	VFD
25. Belgian Congo (Rep. of the Congo)(Zaire)	Kinshasa, etc.	X	Belgian Congo to 6/30/60; Rep. of the Congo to 1971; Zaire since	AF	—	—
26. Belgium	Brussels	X	-----	EU	—	—
27. Bhutan	Thimphu	X	Active on SWBC since 1974	AS	—	—
28. Byelorussian S.S.R.	Minsk, etc.	X	U.S.S.R. union republic; also known as White Russia	EU	—	—
29. Bolivia	LaPaz, etc.	X	-----	SA	—	—
30. Bo-neo (Kalimantan, Indonesia)	Pontianak, etc.	X	Major Indonesian island	AS	—	—
31. Bougainville Island	Kieta	X	Australian-administered island in Solomons group to 1974; part of Papua New Guinea since	OC	—	—
32. Brazil	Rio de Janeiro, etc.	X	-----	SA	—	—
33. British Guiana (Guyana)	Georgetown	X	British Guiana to 5/26/66; Guyana since	SA	—	—
34. British Honduras (Belize)	Belize	X	Independence date indefinite	NA	—	—
35. British North Borneo (Sabah) (Malaysia)	Kota Kinabalu	X	Malaysian portion of Borneo island; Sabah, ex-Br. N. Borneo to 9/16/63; portion of Malaysia since	AS	—	—
36. British Somaliland (Somali Republic)	Hargeisa	X	British Somaliland to 7/1/60; Somali Republic since	AF	—	—
37. Brunei	Berakas, Tutong	X	British protected sultanate portion of Borneo island	AS	—	—
38. Bulgaria	Sofia	X	-----	EU	—	—
39. Burma	Rangoon	X	-----	AS	—	—
40. Canada	Montreal, etc.	X	-----	NA	—	—
41. Canal Zone	Balboa		Inactive on SWBC since 1952, when VOA Courier shipboard relay broadcast from Canal Zone	NA	—	—
42. Canary Islands	Sta. Cruz de Tenerife, etc.	X	-----	AF	—	—
43. Cape Verde Islands	Sao Vicente, etc.	X	Portuguese overseas province	AF	—	—
44. Celebes (Sulawesi, Indonesia)	Ujung Pandang, etc.	X	Indonesian island group	AS	—	—
45. Ceylon (Sri Lanka)	Colombo	X	Independent since 1948; known as Sri Lanka since 1972	AS	—	—
46. Channel Islands	Jersey		Apparently inactive; pirate Radio Channel International active in 1973	EU	—	—
47. Chile	Santingo, etc.	X	-----	SA	—	—
48. China (People's Republic of China)	Peking, etc.	X	Mainland portion of China	AS	—	—
49. China (Taiwan)	Taipei, etc.	X	Formosa island; also known as Nationalist China	AS	—	—
50. Colombia	Bogota, Cali, etc.	X	-----	SA	—	—

<u>COUNTRY</u>	<u>STATION LOCATIONS</u>	<u>ACTIVE</u>	<u>NOTES</u>	<u>CONT.</u>	<u>HRD</u>	<u>VFD</u>
51. Comoro Islands	Moroni, Daoudzi	X	-----	AF	—	—
52. Cook Islands	Rarotonga	X	-----	OC	—	—
53. Costa Rica	San Jose, etc.	X	-----	NA	—	—
54. Cuba	Havana, etc.	X	-----	NA	—	—
55. Cyprus	Limassol, etc.	X	BBC relay station; formerly broadcasts by Cyprus Broadcasting Corp., other stations	AS	—	—
56. Czechoslovakia	Prague	X	-----	EU	—	—
57. Denmark	Copenhagen	X	-----	EU	—	—
58. Dodecanese Islands	Iale of Rhodes		Inactive; former VOA relay site	AS	—	—
59. Dominican Republic	Santo Domingo, etc.	X	-----	NA	—	—
60. Ecuador	Quito, etc.	X	-----	SA	—	—
61. Egypt (United Arab Republic)	Cairo	X	-----	AP	—	—
62. El Salvador	San Salvador	X	-----	NA	—	—
63. England	London, etc.	X	-----	EU	—	—
64. Estonian S.S.R.	Tallin, etc.	X	U.S.S.R. union republic	EU	—	—
65. Ethiopia	Addis Ababa	X	-----	AF	—	—
66. European R.S.F.S.R.	Moscow, etc.	X	European portion of U.S.S.R. union republic	EU	—	—
67. Falkland Islands	Port Stanley	X	-----	SA	—	—
68. Fernando Poo (Equatorial Guinea)	Malabo	X	Fernando Poo to 10/12/68; Equatorial Guinea since	AF	—	—
69. Fiji Islands	Suva		Inactive on SWBC since 1972	OC	—	—
70. Finland	Helsinki, etc.	X	-----	EU	—	—
71. France	Paris, Allouis, etc.	X	-----	EU	—	—
72. French Cameroons (Cameroun)	Yaounde, etc.	X	French Cameroons to 1/1/60; Cameroun since	AF	—	—
73. French Equatorial Africa (Central African Republic)	Bangui	X	French Equatorial Africa to 8/13/60; Central African Republic since	AF	—	—
74. French Equatorial Africa (Chad)	Mdjamana	X	French Equatorial Africa to 8/11/60; Chad since	AF	—	—
75. French Equatorial Africa (People's Republic of the Congo)	Brassaville, etc.	X	French Equatorial Africa to 8/15/60; People's Republic of the Congo since	AF	—	—
76. French Equatorial Africa (Gabon)	Libreville, etc.	X	French Equatorial Africa to 8/17/60; Gabon since	AF	—	—
77. French Guiana	Cayenne	X	-----	SA	—	—
78. French Indo China (Vietnam) (Democratic People's Republic of Vietnam)	Hanoi	X	Portion of former French Indo China; State of Vietnam created 7/1/49; Geneva Agreement of 7/21/54 divided Vietnam; also known as North Vietnam	AS	—	—

<u>COUNTRY</u>	<u>STATION LOCATIONS</u>	<u>ACTIVE</u>	<u>NOTES</u>	<u>CONT.</u>	<u>HRD</u>	<u>VFD</u>
79. French Indo China (Vietnam) (Republic of Vietnam)	Saigon, etc.	X	Portion of former French Indo China; State of Vietnam created 7/1/49; Geneva Agreement of 7/21/54 divided Vietnam; also known as South Vietnam	AS	—	—
80. French Indo China (Cambodia) (Khmer Republic)	Phnom Penh	X	Independent since 7/19/49; portion of former French Indo China	AS	—	—
81. French Indo China (Laos)	Vientiane, Savannakhet	X	Independent since 7/19/49; portion of former French Indo China; northern Laos controlled by Pathet Lao for many years and believed former location of Pathet Lao Radio	AS	—	—
82. French Morocco (Morocco)	Rabat, etc.	X	French Morocco to 3/2/56; Morocco since	AF	—	—
83. French Somaliland (Afars and Issas)	Djibouti	X	-----	AF	—	—
84. French Togoland (Togo)	Lome	X	French Togoland to 4/27/60; Togo since	AF	—	—
85. French West Africa (Dahomey)	Cotonou	X	French West Africa to 8/1/60; Dahomey since	AF	—	—
86. French West Africa (Guinea)	Conakry	X	French West Africa to 10/2/58; Guinea since	AF	—	—
87. French West Africa (Ivory Coast)	Abidjan	X	French West Africa to 8/7/60; Ivory Coast since	AF	—	—
88. French West Africa (Mali)	Bamako	X	French West Africa to 6/20/60; Mali since	AF	—	—
89. French West Africa (Mauritania)	Nouakchott	X	French West Africa to 11/28/60; Mauritania since	AF	—	—
90. French West Africa (Niger)	Mianey	X	French West Africa to 8/3/60; Niger since	AF	—	—
91. French West Africa (Senegal)	Dakar, St. Louis	X	French West Africa to 6/20/60; portion of Mali Federation to 8/20/60; Senegal since	AF	—	—
92. Galapagos Islands	Puerto Baquerizo Moreno	X	Pacific islands belonging to Ecuador	SA	—	—
93. Gambia	Banjul	X	-----	AF	—	—
94. Georgian S.S.R.	Tbilisi	X	U.S.S.R. union republic	AS	—	—
95. Germany (Democratic Republic and East Berlin)	E. Berlin, Hauen, etc.	X	Germany to 10/7/49; German Democratic Republic since	EU	—	—
96. Germany (Federal Republic of Germany)	Cologne, etc.	X	Germany to 9/1/49; Federal Republic of Germany since	EU	—	—
97. Germany (West Berlin)	West Berlin	X	Germany to 9/1/49; portion of Federal Republic of Germany since; RIAS	EU	—	—

<u>COUNTRY</u>	<u>STATION LOCATIONS</u>	<u>ACTIVE</u>	<u>NOTES</u>	<u>CONT.</u>	<u>HRD</u>	<u>VFD</u>
98. Goa (India)	Ciu. Goa		Portuguese overseas territory until Indian annexation 12/18/61; no SWBC activity since	AS	—	—
99. Gold Coast (Ghana)	Accra	X	Gold Coast to 3/6/57; Ghana since	AF	—	—
100. Gilbert and Ellice Islands	Tarawa		Inactive on SWBC	OC	—	—
101. Greece	Athens, etc.	X	-----	EU	—	—
102. Greenland	Godthaab	X	-----	NA	—	—
103. Grenada	St. George's	X	One of the Windward Islands	NA	—	—
104. Guadeloupe	Pointe-a-Pitre		Inactive on SWBC since about 1957	NA	—	—
105. Guatemala	Guatemala City, etc.	X	-----	NA	—	—
106. Haiti	Port-au-Prince, etc.	X	-----	NA	—	—
107. Hawaii	Honolulu, Barking Sands	X	WWV standard time/frequency station active; formerly VOA relay site	OC	—	—
108. Honduras	Tegucigalpa, etc.	X	-----	NA	—	—
109. Hong Kong	Victoria		Inactive on SWBC since 8/68	AS	—	—
110. Hungary	Budapest	X	-----	EU	—	—
111. Iceland	Reykjavik	X	Active on SWBC during 1200-1300 GMT period Sundays	EU	—	—
112. India	Delhi, Bombay, etc.	X	-----	AS	—	—
113. India (East Pakistan) (Bangladesh)	Dacca	X	India to 8/14/47; portion of Pakistan to 4/71; Bangladesh since	AS	—	—
114. India (West Pakistan)	Karachi, etc.	X	India to 3/14/47; Pakistan since	AS	—	—
115. Iran	Teheran, Tabriz, etc.	X	-----	AS	—	—
116. Iraq	Baghdad	X	-----	AS	—	—
117. Ireland (Eire)	Athlone		Inactive on SWBC since about 1954	EU	—	—
118. Italian Somaliland (Somali Republic)	Mogadishu	X	Italian Somaliland to 7/1/60; Somali Republic since	AF	—	—
119. Italy	Rome	X	-----	EU	—	—
120. Jamaica	Kingston		Inactive on SWBC since about 1958	NA	—	—
121. Japan	Tokyo, etc.	X	-----	AS	—	—
122. Java (Indonesia)	Jakarta, etc.	X	Major Indonesian island	AS	—	—
123. Karelo-Finnish S.S.R. (European R.S.F.S.R.)	Petrozavodsk	X	U.S.S.R. union republic to 1956; portion of European R.S.F.S.R. since	EU	—	—
124. Kashmir (India)	Srinigar, Jammu	X	Portion of India	AS	—	—
125. Kashmir (Azad Kashmir)	Trarkhel, etc.	X	Portion of India to 1/1/49; under Pakistan control since	AS	—	—
126. Kazakhstan S.S.R.	Alma Ata, etc.	X	U.S.S.R. union republic	AS	—	—
127. Kenya	Nairobi, etc.	X	-----	AF	—	—
128. Kirghiz S.S.R.	Frunze	X	U.S.S.R. union republic	AS	—	—
129. Korea (Democratic People's Republic of Korea)	Pyongyang	X	Korea to 5/1/48; Democratic People's Republic of Korea since	AS	—	—

COUNTRY	STATION LOCATIONS	ACTIVE	NOTES	CONT.	HRD	VFD
130. Korea (Republic of Korea)	Seoul, Taegu, etc.	X	Korea to 5/1/48; Republic of Korea since	AS	—	—
131. Kuwait	Kuwait	X	-----	AS	—	—
132. Latvian S.S.R.	Riga	X	U.S.S.R. union republic	EU	—	—
133. Lebanon	Beirut	X	-----	AS	—	—
134. Liberia	Monrovia	X	-----	AF	—	—
135. Libya	Benghazi, Tripoli	X	-----	AF	—	—
136. Lithuanian S.S.R.	Vilnius, Kaunas	X	U.S.S.R. union republic	EU	—	—
137. Luxembourg	Villa Louvigny	X	-----	EU	—	—
138. Madagascar (Malagasy Republic)	Tananaive, etc.	X	Madagascar to 10/14/58; Malagasy Republic since	AF	—	—
139. Malaya (Malaysia)	Kuala Lumpur, etc.	X	Malaya to 9/16/63; Malaysia since	AS	—	—
140. Maldive Islands	Male	X	-----	AS	—	—
141. Malta	Malta Garrison, etc.	X	Br. Forces Bc Station inactive since 1950; Dutsche Welle relay active since 1974	EU	—	—
141. Manchuria (People's Republic of China)	Haerpin (Harbin), etc.	X	Portion of China since 1945; portion of People's Republic of China since 9/21/49	AS	—	—
142. Martinique	Fort-de-France	X	-----	NA	—	—
143. Mauritius	Forest Side, etc.	X	-----	AF	—	—
144. Mexico	Mexico City, etc.	X	-----	NA	—	—
145. Moldavian S.S.R.	Kishinev		U.S.S.R. union republic; inactive on SWBC since mid '60s	EU	—	—
146. Molucca Islands (Maluku, Indonesia)	Ambon, etc.	X	Indonesian island group	AS	—	—
147. Monaco	Monte Carlo	X	By NASWA committee action, may be counted EU as Monaco despite extraterritorial transmitter location in France	EU	—	—
148. Mongolia	Ulan Bator	X	-----	AS	—	—
149. Mozambique	Lorenco Marques, etc.	X	-----	AF	—	—
150. Nepal	Katmandu	X	-----	AS	—	—
151. Netherlands	Hilversum, etc.	X	-----	EU	—	—
152. Netherlands Antilles	Bonaire	X	-----	NA	—	—
153. Netherlands New Guinea (West Irian)(Irian Jaya, Indonesia)	Jayapura, Sorong, Merauke, etc.	X	Netherlands New Guinea to 5/1/63; portion of Indonesia since	OC	—	—
154. New Caledonia	Noumea	X	-----	OC	—	—
155. New Britain	Rabaul, etc.	X	Portion of Papua New Guinea	OC	—	—

<u>COUNTRY</u>	<u>STATION LOCATIONS</u>	<u>ACTIVE</u>	<u>NOTES</u>	<u>CONT.</u>	<u>HRD</u>	<u>VFD</u>
156. Newfoundland (Canada)	St. Johns	X	Crown colony of Great Britain to 1949; portion of Canada since	NA	—	—
157. New Guinea, Territory of (Papua New Guinea)	Wewak, etc.	X	-----	OC	—	—
158. New Hebrides	Vila	X	Jointly administered by France and Great Britain	OC	—	—
159. New Ireland (Papua New Guinea)	Kavieng	X	-----	OC	—	—
160. New Zealand	Wellington	X	-----	OC	—	—
161. Nicaragua	Managua, etc.	X	-----	NA	—	—
162. Nigeria	Lagos, etc.	X	All of Nigeria except East Central State, formerly Biafra	AF	—	—
163. Nigeria (Biafra)(Nigeria)	Enugu, etc.	X	Portion of Nigeria to 5/30/67; Biafra to 1/13/70; Nigeria since	AF	—	—
164. Northern Rhodesia (Zambia)	Lusaka	X	Northern Rhodesia to 10/24/64; Zambia since	AF	—	—
165. Norway	Oslo, Tromso, etc.	X	-----	EU	—	—
166. Nyasaland (Malawi)	Blantyre	X	Nyasaland to 7/6/54; Malawi since	AF	—	—
167. Palestine (Israel)	Jerusalem, etc.	X	Palestine to 5/14/48; Israel since	AS	—	—
168. Panama	Panama City, etc.		Inactive on SWBC for some years	NA	—	—
169. Papua Territory (Papua New Guinea)	Port Moresby, etc.	X	-----	OC	—	—
170. Paraguay	Asuncion, etc.	X	-----	SA	—	—
171. Peru	Lima, Cuzco, etc.	X	-----	SA	—	—
172. Philippines	Manila, Timang, etc.	X	-----	AS	—	—
173. Poland	Warsaw	X	-----	EU	—	—
174. Portugal	Lisbon, etc.	X	-----	EU	—	—
175. Portuguese Guinea(Guine Bissau)	Bissau	X	Portuguese overseas province	AF	—	—
176. Portuguese Timor	Dili	X	Portuguese overseas province	AS	—	—
177. Qatar	Doha	X	-----	AS	—	—
178. Rio Muni (Equatorial Guinea)	Bata	X	Rio Muni to 10/12/60; Equatorial Guinea since	AF	—	—
179. Reunion Island	St. Denis	X	-----	AF	—	—
180. Roumania	Bucharest	X	-----	EU	—	—
181. Ruanda-Urundi (Burundi)	Bujumbura	X	Ruanda-Urundi to 7/1/62; Burundi since	AF	—	—
182. Ruanda-Urundi (Rwanda)	Kigali	X	Ruanda-Urundi to 7/1/62; Rwanda since	AF	—	—
183. Ryukyu Islands (Japan)	Okinawa	X	Control transferred from U.S. to Japan in 1972	AS	—	—
184. Sao Tome	Sao Tome	X	Portuguese overseas province	AF	—	—
185. Sarawak (Malaysia)	Kuching	X	Sarawak to 9/16/63; portion of Malaysia since	AS	—	—
186. Saudi Arabia	Jeddah, Riyadh	X	-----	AS	—	—

<u>COUNTRY</u>	<u>STATION LOCATIONS</u>	<u>ACTIVE</u>	<u>NOTES</u>	<u>CONT.</u>	<u>HRD</u>	<u>VFD</u>
187. Scotland	Edinburgh		Several SWBC pirates sporadically active	EU	—	—
188. Seychelles Islands	Victoria	X	-----	AF	—	—
189. Sicily	Calanissetta	X	Portion of Italy	EU	—	—
190. Sierra Leone	Freetown	X	-----	AF	—	—
191. Singapore (Malaysia) (Singapura)	Singapore	X	Singapore to 9/16/63; portion of Malaysia to 8/9/65; independent Singapura since	AS	—	—
192. Solomon Islands	Honiara, etc.	X	-----	OC	—	—
193. South Africa	Paradyis, etc.	X	-----	AF	—	—
194. Southern Rhodesia (Rhodesia)	Salisbury	X	Southern Rhodesia to 11/11/65; Rhodesia since	AF	—	—
195. Spain	Madrid, etc.	X	-----	EU	—	—
196. Spanish Morocco (Morocco)	Tetuan		Spanish Morocco to 4/10/58; portion of Morocco since; inactive on SWBC since about 1960	AF	—	—
197. Spanish Sahara	Aaiun	X	-----	AF	—	—
198. St. Helena	Jamestown		Reported testing sporadically	AF	—	—
199. Sumatra (Sumatera, Indonesia)	Medan, etc.	X	Major Indonesian island	AS	—	—
200. Surinam	Paramaribo		Inactive on SWBC since mid-'60s	SA	—	—
201. Swan Island	Swan Island		Inactive on SWBC since late-'60s	NA	—	—
202. Swaziland	Mbane, etc.	X	-----	AF	—	—
203. Sweden	Stockholm, etc.	X	-----	EU	—	—
204. Switzerland	Berne, etc.	X	-----	EU	—	—
205. Syria	Damascus	X	-----	AS	—	—
206. Tadzhik S.S.R.	Dushanbe, etc.	X	U.S.S.R. union republic	AS	—	—
207. Tahiti	Papeete	X	-----	OC	—	—
208. Tanganyika (Tanzania)	Dar es Salaam	X	Tanganyika to 4/26/64; Tanzania since	AF	—	—
209. Tangier (Morocco)	Tangiers	X	Tangier to 1956; portion of Morocco since	AF	—	—
210. Thailand	Bangkok	X	-----	AS	—	—
211. Tibet (People's Republic of China)	Lhasa	X	Tibet to 12/20/53; portion of People's Republic of China since	AS	—	—
212. Trans-Jordan (Jordan)	Amman	X	Trans-Jordan to 4/26/49; Jordan since	AS	—	—
213. Trinidad	Port of Spain		Inactive on SWBC since about 1958	NA	—	—
214. Tristan da Cunha	Tristan da Cunha	X	-----	AF	—	—
215. Trucial States (Union of Arab Emirates)	Dubai, Sharjah, Abu Dhabi	X	Trucial States to 1971; Union of Arab Emirates since	AS	—	—
216. Tunisia	Tunis	X	-----	AF	—	—
217. Turkey	Ankara, etc.	X	-----	AS	—	—
218. Turkmen S.S.R.	Ashkhabad, etc.	X	U.S.S.R. union republic	AS	—	—

<u>COUNTRY</u>	<u>STATION LOCATIONS</u>	<u>ACTIVE</u>	<u>NOTES</u>	<u>CONT.</u>	<u>HRD</u>	<u>VFD</u>
219. Turks and Caicos Islands	Grand Turk	X	-----	NA	—	—
220. Uganda	Kampala	X	-----	AF	—	—
221. Ukrainian S.S.R.	Kiev, etc.	X	U.S.S.R. union republic; programs also relayed by stations elsewhere in the Soviet Union	EU	—	—
222. United States of America	Greenville, Dixon, Bethany, etc.	X	-----	NA	—	—
223. Uruguay	Montevideo, etc.	X	-----	SA	—	—
224. Uzbek S.S.R.	Tashkent, etc.	X	U.S.S.R. union republic	AS	—	—
225. Vatican	Vatican City	X	Most transmissions from transmitters outside Vatican City, however that site considered Vatican territory	EU	—	—
226. Venezuela	Caracas, etc.	X	-----	SA	—	—
227. Western Samoa	Apia		Inactive on SWBC since mid-'50s	OC	—	—
228. Yemen	San'a	X	-----	AS	—	—
229. Yugoslavia	Belgrade	X	-----	EU	—	—
230. Zanzibar (Tanzania)	Zanzibar	X	Zanzibar to 4/26/64; portion of Tanzania AF since	AF	—	—

FUTURE COUNTRIES

When stations planned, projected or under construction become active, they will be added to the NASWA country list.

Admiralty Islands (Papua New Guinea) Lorengau

Plans announced for a station on Manus in the Admiralty group OC

- 4605 W. IRIAN, RRI, Serui. 1249 s/off ancts, "Inilah RRI Serui," Pacific Is. Melody, OC off 1251; G 1st time hrd in NA (Henderson 1/31). (Have to dispute that last statement, Dan -- I hrd it several times last spring at 1255V*. BH).
- 4610 ASIATIC RSFSR, Khabarovsk. 1232 RR musical; G (J. Davis).
- 4635 TADZHIK SSR, Dushanbe. 0135 RR talk; G (Henderson, MD 1/18). 0202 RR; LP echo (J. Davis). 1305 heavy clas mx pgm; always good sig (Willis). (Re "long-path echoes": These usually occur when a signal is arriving short-path and long-path at the same time. As a rule, most LP reception is not accompanied by an echo. BH).
- 4675 CLANDESTINE, V. of NUFK. 1149 past 1207, MW in Khmer, string mx; F. // 7015 (J. Davis). 1408 MW nx, 1412 mx, W ID 1424; G. // 7015V/9988/10080/10120, all P/F (Szot). 1432 usual exotic mx, Khmer ancts (Willis).
- 4679 ECUADOR, R. Nac. Espejo. 0409-0500A LA pops, TC's, etc. (Patterson, Reeves). 0516 ID (J. Davis). 2328-2335 LA nx, many ID's, no mx; G (Slaff).
- 4708V N. VIET NAM, Hanoi. 1315 VV talks, ID (Tyson 4710). 1428 poor mod, drifting xmtr. 3995 and 4770 also still hrd; QTH's unk (Willis). (Michael, as I recall -- and this is strictly from memory -- 3995 (actually 3992) is Viet Bac // 6796/6806V while 4770 is Tay Bac X-4818V X-4750 and probably // 6383V. BH)
- 4718 UNID, 0338-0452* north Andean (at least one Ec) mx, SS pgm preview, few ancts; ute QRM; F on 2/3, 4. Is not Cuban harmonic (Reeves).
- 4720 UNID, 0615-0630 LA pgm, MW in SS; QRM; unreadable (Straus 2/12).
- 4725 UNID. Since 12/25 have been hearing interesting things here -- e.g., 1135-1235 in non-Oriental-sounding lang, relig-sounding songs/hymns, often w/ Creole or Island flavor. Burma listed/reported here, but . . . (Jaar).
- 4738 UNID, LA 0305-0345, off by 0430 on 1/15; 0356-0436* no NA on 1/26; 0340-0400A on 2/3. Mainly northern LA pgm mx, few ancts; low level (Reeves).
- 4740 MALDIVES, Male. 1530 EE ID by W (Willis, Henderson WA). Then into EE relig pgm, preacher, choir; 1545 another ID and into light pops; F, fading (Henderson, WA 1/21). 1615-1635 Indian-type mx, old rock, EE ancts by MW; finally talk on traveling to the Maldives; F w/ CW QRM (Buxton 1/25).
- 4750 (T) AFGHANISTAN, Kabul. 1400 lang, Indian-type mx; ute QRM; F (Bowlsby 1/3).
- 4750 (T) BANGLADESH, 1310 wailing mx, lang; often G (Abraham).
- 4750 PAKISTAN, Rawalpindi via Islamabad. 1315-1330 Urdu-type lang, Pak-type mx (Henderson, WA). 1332 prob Urdu, occ vocals; RP ID's 1400 and 1500 (Tyson). (With Afghanistan, Bangladesh and Pakistan all on 4750, ID's are a must! BH).
- 4751.5 UNID, LA 0215-0306* Ec & modern LA pops. Prob R. El Mundo, Ecuador (Reeves). 0320 SS, LA mx; 0405* w/ few bars of theme from "Bonanza." (Tuchscherer 2/6).
- 4754 (T) BOLIVIA, Em. Bolivia. 0338-0406* Andean & MoR mx, MW DJ's, no ID (Reeves 2/4).
- 4755 BRAZIL, Rio de Maranhão. 0025 PP, mx (Zilmer). 0047 dialog, ads; also 2200 (Mc-Colonial). Em. Nuevo Mundo. 1145-1200 mx, singing ads, ID (Patterson). Neil).
- 4756V MOZAMBIQUE, RCM, Beira. 0423 OC, 0425 Af instr mx IS, 0430 vernac talks on Africa to 0450 TO. ID per Coonetilleke. X-49MB? (Reeves 2/3, 4, 7, 8).
- 4758N DOMINICAN REP., Onda Musical. 0320-0403* X-4782V on 2/4, 7 but nil 2/11 (Reeves).
- 4760 CHINA, Kunming, Yunnan. 1516 CC mx, W talking nicely but M screaming; is under RR w/ BC stn (Szot).
- 4760 PERU, R. Tingo Maria. 0228-0300 LA mx, 3 ID's (Tuchscherer). (T) 0305-0400* w/ "eco" s/off ancts (Reeves). (T) 0323 Andean mx; G thru usual OC QRM (Henderson, MD).
- 4770 LIBERIA, ELWA. #0602 IS, EE; P (McCoy). 2130-2230 EE relig, nx (McCarthy, Zilmer).
- 4770 VENUEZUELA, R. Bolívar. 0115 LA mx, jingles, ID's (McNeil). 1016 same (Jones).
- 4775 AFGHANISTAN, Kabul. 1317-1345 SC mx, M anct; G many days (Abraham). (Lang? BH).
- 4777 CABON, Libreville. 0610-0618 FF cmtry; G (Szot). 2300 FF, Af mx; 2400* ID & NA; P/F (Bowlsby, McCarthy).
- 4780 AFARS & ISSAS, Djibouti. (T) 0305 slow AA chants; vy wk on 2/3; 0330-0350 lang, monotonous Af mx w/ repeated bass riff going upscale (Perdue 1/26). 0408-0417 AA mx by male group; het to/from Petrozavodsk on 4780 (Reeves 4781 2/8).
- 4780 HONDURAS, R. Jutiapa. 1200 ID, ads, LA mx; noise, het; F (A. Miller, Patterson).
- 4780V MALI, Bamako. 0702 FF nx, Af mx; F (McCoy).
- 4780 VENUEZUELA, LV de Carabobo. 0129 LA & rock mx, ads (Jones).
- 4785 TANZANIA, RT Cmc1 Svc. 0332 EE/Swahili, ads, ID; F but low mod (Henderson, MD).
- 4787V MALI, Bamako. 2300 FF, Af mx // 5995; not hrd on 4780 (Zilmer 1/29).
- 4788 TURKS & CAICOS, VS18. 2145 to 2315V* or 0005*; pop, soul, calypso mx; dedications, VOA nx (Perdue, M. Smith, Earhart, Zilmer, Atkins, Gavaras).
- 4790V PERU, R. Atlántida. 0352-0602* ID's, theme from "Shaft" (McCarthy 4787A, Zilmer).
- 4791 ECUADOR, Em. Atalaya. 0230-0402 Andean, LA, MoR mx, ID's; bad mod (Perdue, Earhart).
- 4800 LESOTHO, Maseru. #0400 NA, vernac (nx?), Af mx; poss EE 0430-0440 TO (Reeves 1/26, Mayer 1/20). 1900 Sesotho ancts, talk, instr mx (Tyson).
- 4800 INDIA, AIR, Hyderabad. 1430 ancts atop China. Af here too -- Lesotho? (Willis).
- 4805 JAVA, RRI, Jakarta. 1518 light mx, Indo ancts; het from ute; P (Szot). (T) Occ past 1600, Indo format; maybe listed 3rd Pg (Bowlsby).
- 4807 DOMINICAN REP., R. Norte. 2330 LA mx, ID; also likely the one hrd 1200-1215+ when cking for Galápagos s/on (Perdue).
- 4810 CALAPACOS IS., LV de G. *1200V march, NA, Ec mx, ID's (3 in 5 min. one day); mix R. Popular but separable on USB; P/G (Perdue).
- 4810 S. AFRICA, SABC. Springbok R. 0200-0430 EE/Afkns, pops, ads, TC's; G (Dorbert, Earhart, Zilmer, Jones, Moritz), 2030-2100 EE, pops, ancts (Padule).
- 4810 VENUEZUELA, R. Popular. 0503 rock mx; G (J. Davis).

- 4815 CHINA, RP. *1301 IS, "Govorit Pekin"; G (Abraham).
 4815 PERU. R. Samarén. 0235 LA mx, ID; QRM (Perdue). 0513 "Love's Theme" by Love Unlimited, ID, NA 0517*. Usually off promptly 0500 (Reeves 1/12).
 4819.5 ANGOLA, Em. Oficial. 0508-0524 clas mx, W in PP, no ID; F/F w/ het de 4820 (Rvs). 2100-2115 PP ancts, Af-style pops (Padula 4820).
 4820 (THE) GAMBIA, Banjul. 0628 light mx, 0630 mention of Banjul and Gambia, 0645 mention of "R. Gambia"; into mx; P (Szot).
 4820 HONDURAS. LV Evangélica. *0300-0430* EE relig pgm; F/G (Dorbert, Levy).
 4820 HONDURAS. Unid. 0517 SS, mx, cuckoo-clock TC, talk of Tegucigalpa. Could be R. Católica but no ID as such (McCoy 1/16). (Think I've seen mention of somebody using HRVC's xmtr after hours; likely Behr or Hauser can answer. BH).
 4820 INDIA, AIR, Calcutta. 1435 Indian mx, ancts over ute than dominates here (Willis).
 4820 VENEZUELA, R. Tricolor. 0330 past 0500, many ID's, Puerto-Rican mx (Reeves, McN.).
 4825 ASIATIC RSFSR, Vladivostok. 0725 W in CC (Bowlsby). 0900 IS, 0901 march, CC nx; P // 0600 (P) 6165 (G) 6230 SSB (VP), 7135 (F), 7315 (P); no other //s hr'd (Szot).
 4825 ECUADOR, R. Luz y Vida. 0432-0449 Ec mx, LA pops, TC's; het de TIFC (Patterson).
 -825 TANZANIA, RT. 0413 Swahili talks about Tanzania, drum mx // 5050 (Reeves 2/8).
 2015-2050 AF songs, Swahili ancts (Padula).
 4832 COSTA RICA, R. Capital. 0602 ID (J. Davis). 0625-0703 LA mx (Marshall).
 4835 GUATEMALA, R. Tesutulian. 0017 SS & Indian lang, marimba & ranchera mx, ID and gave freq as 4825 -- and that's where they were, above HRVC, below TIHB (McCoy 1/29). (Sri, Bob, didn't catch till I got past 4825. BH). (T) 0450 SS talk (J. Davis). 1230-1250 marimba mx, SS & lang (Lineback, Abraham). 2350 Latin instr, 2355 ID and resumed selection (Courtney). (All except McCoy reported 4835. BH).
 4835 SARAWAK, RMS. 1520 chant-type singing, Malay talk, ID; VG (Szot).
 4835 S. AFRICA, SABC. 0420 farm pgm in EE (Jones). 0430 "Radio Today" (Zilmer). (T) 1635 in poss nx (couldn't tell lang) (Bowlsby). 2035-2100 clas mx, EE (Padula).
 4840 INDIA, AIR, Bombay. 1330-1450 Hindi-type mx & talks; finally PLA buried (H'son).
 4845 BOTSWANA, Gaborone. *0356 cowbell IS, rooster crowing, choral anthem, EE prayer; 0404 mention of Gaborone (Perdue). 0414 Setswana by W, 0430 EE nx after ID (McNeil) then lang, MW; 0500 pips, ID, nx past 0515 (Reeves). 1705-1720 BBC nx, ID, guitar mx, talks by W; difficult copy thru QRM/QRN (Buxton).
 4845 MUARITANIA, Nouakchott. 0700 chants, AA talk; 0730 FF nx; 0800* guitar IS (Behr, McCoy). 2024 AA, 2045 national AA mx past 2100; still audible 2115 but then buried by OC of Kuala Lumpur preparing for *2130 (Padula). 2200 AA talk, chants (Zilmer).
 4850 CHINA, RP. 1524 CC, light CC mx better than PLA's mx (but both are worse than Rolling Stones or even Tchaikovsky). (Szot).
 4850 DOMINICAN REP., R. Clarín. EE ID by W with NY-sounding accent, mentioned AM/FN/two SW freqs. Also sev days 0400-0415* but OC remaining on, Troubles? (Reeves, McNeil). (T) UZBEK SSR, Tashkent. 1310 W talk (Abraham). (Language? BH).
 4855 MOZAMBIQUE, RCM, L.M., A Pgm. 1940-2000 PP, pops, ancts (Padula).
 4855 SUMATRA, RRI, Palembang. 1527 light mx, Indo talk; some Peking splatter; P (Szot).
 4860 ASIATIC RSFSR, QTH unk. 0715 Mayak pgm // 5015; F (Bowlsby). (Chita reactivated?)
 4860 INDIA, AIR, Delhi. 1430 local lang mix others; // 6145 (Willis). (Michael, I didn't understand your ref to 4762 being in the clear. BH).
 4860 VENEZUELA, R. Maracaibo. 0227 talk, Rumbos bells (J. Davis).
 4860 UNID. 1214-1240 MW in odd (Asian?) lang, many clas & C. Asian mx interludes. Could be RR I reported last month but lang sure didn't seem RR dialect (Reeves 2/1).
 4865 AZORES, Ponta Delgada. 2110-2301 PP, pops, ID's; Latin QRM (M. Smith, Cress).
 4865 BRUNEI, Berakas. 1215 talk about Brunei, 1225 ID; F (Buxton). (Lang? BH).
 4865 MOZAMBIQUE, RCM, L.M. Now runs later since recent military disturbances there. Hrs 2030-2100 local lang, Af mx; previously 2000*. Don't think Azores! (Padula).
 4875 BOLIVIA, Cruz del Sur. 0150 clas mx, 0200 ID (A. Miller). 0227 joyous orch mx, SS ancts; 0301 EE ID, freq info, sked, etc.; F (Cress).
 4875 BRAZIL, R. Jornal do Brasil. 0410-0454 pops, PP mix over/under SABC (Reeves).
 4875 S. AFRICA, SABC. 0420-0430 Afkns, relig, clas mx, ID (Earhart, Zilmer, Jones). 1610 "Don't Fence Me In," other pops; G via LP (Henderson, WA). 2050-2100 evening concert (Padula).
 4875 UNID. 0538 EE relig talk, US accent; 0544 relig mx, talks in soft lang (perhaps still EE), then utc. Bolivia? (Reeves). (Why not SABC? BH).
 4880 CHINA, RP. 1513 Mongolian; G tho jammed. // 4815 (Szot).
 4884 (T) CHINA, RP. 1700 IS, "Govorit Pekin," RR pgm (Bowlsby). (Why tentative if you hr'd Peking IS and ID? BH).
 4885 ANGOLA, Voz do Zaire(?)(TBS). 0530 seemed s/on, W and "Angola" right after Colombia s/off; Zaire-type & other Af mx; 0600 NA past 0605; F/P (Perdue 2/3).
 4885 COLOMBIA, Ondas del Meta. 0453* ID's, freq, NA (Jones).
 4885 (T) KENYA, Kisumu. 0430 vernac, local mx w/ drums; 0430 poss ID, then more local mx; P. Kenya on 4915 hr'd same time (Mayer 1/24).
 4885 PERU, R. Huancavelica. 0453 s/off anct after Colombia off, 0455* NA (Reeves).
 4885-6 UNID. 0512 OC, *0527 tam-tam IS, NA; 0531 W in FF on 1/14. Also 0541-0620 W. Af. mx, FF talk. Dahomey missing from 4870 these times; alt freq? (Reeves).
 4886.5 UNID. 2135 LA-sounding mx, lang (PP?) talk; het; P (Wallace).
 4890 SENEGAL, Dakar. 0603-0615+ lang, AA-type chants; strong (Perdue). 0655 mx, 0700 FF nx w/ features; G (Szot). McCarthy, McNeil).
 4890 PAPUA, Pt. Moresby. 1235 EE, NBC nx, 1300 ABC nx, 1402* (Atkins, Moritz, Jones).

- 4890 VENEZUELA, Rdif V. 0022 talk, ID's, LA pops (McNeil). 0300 slogans; G (J. Davis).
- 4895 MOZAMBIQUE, RCM, Beira. 0420 PP talk, drum; hi-side het; P (Wallace). (T) 0425-0455 W in lang., drums, vocals; P (McCarthy 1/26).
- 4900 BURUNDI, R. CORDAC. (T) 0400 FF after YV off; relig chorals mx; F (Perdue 2/2). 0415 Swahili relig pgm, 0430 ID, Af mx to 0459; P (Mayer 1/28). 2/7, 8.
- 4900.5 CHAD, N'djamana. 2115-2131* military NA; also 0444. Better than 4904.5 (Reeves).
- 4904.5 CHAD, N'djamana. 0540 Af mx, AA talk; 0600 FF ID, nx (McNeil). 2023-2115* FF cmtry, Af times (Padula).
- 4907 CAMBODIA, Phnom Penh. 1430-1440 ID, SEA mx, ancts in Khmer; F; RTTY QRM (Buxton).
- 4910 GUINEA, Conakry. 2150; G // 9650. Could this be some reporters' "Zambia"? (Ab'ham).
- 4911 ECUADOR, Em. Gran Colombia. 0205 sev ID's, short mx breaks; het; P mod (Perdue).
- 4911 ZAMBIA, Lusaka. 0350 talk; G; some QRM (Cabral). (Lang? BH). 0405-0415 lang, Af mx, tent RZ ID; Ecuador QRM; P (Lineback). Zambia? 0613-0700 lang, vocals w/ drums; P (McCarthy). (More likely Guinea. BH). 2225 lang, Af mx; P (Zilmer) (Ditto. BH).
- 4915 BRAZIL, Rdif de Macapá. 0830-0842 PP chatter, mx; 0700 EE ID, nx, quotes from Ghanaian papers. ID's all include Accra, not Tema as sometimes reported (Atkins, J. Davis, Cress, Moritz, Szot). (Tema is xmtr QTH. BH). 2230 vernac relig pgm; 2245 ID, nx highlights; 2255 choir mx to 2305* NA (Bowlsby, Zilmer).
- 4915 KENYA, Nairobi. After Brazil 0303*, OC, 0315 mod; 0330 songs, Swahili ads; 0400-0430A nx, then songs past 0500 (Jaar, Reeves). 1530-1610 Swahili, mx (Willis, Henderson, WA).
- 4920 ASIA/TIC RSFSR. QTH unk. 0930 HS under ABC; VG (Willis 1/13).
- 4920 AUSTRALIA, ABC. 1230 EE features, nx, wx, 1402* (McNeil, Marshall).
- 4923 ECUADOR, R. Quito. 0308 nx, ads, "La Voz de la Capital"; Honduras QRM (McCoy).
- 4923.5 MOZAMBIQUE, RCM, L.M: 0300-0420 EE, US pops, ID (Courtney, Jaar, Cabral).
- 4927 SUMATRA, RRI, Jambi. 1552 Moslem chants, low mod; F; CW QRM (Henderson, WA).
- 4930 DOMINICAN REP., R. M11. 1202 ID, singing ads, LA pops; F (A. Miller).
- 4930 ECUADOR, R. Casa de la Cultura. 0312-0414* chorals, Andean mx, gongs before ID's; G but overmodulated (Jones, Mayer).
- 4930 VENEZUELA, LV de la Fe. 0050 talk, relig mx, ID (McCoy). 1145 pops, LA mx (Zilmer).
- 4935 PERU, R. Tropical. 0332-0402* LA mx, ID's, TC's, ads (Tuchscherer, Mayer, Sparks). 1100-1205 mentions of Tropical; C but hets from Surakarta & Colombo (Willis 2/4).
- 4940 ASIA/TIC RSFSR, Yakutsk. 0930 RR HS; X-4800; G (Willis). 1550 piano mx from Moscow; big sig (Henderson, WA). 1645 RR songs, W ancr (Bowlsby).
- 4940 IVORY COAST, Abidjan. 0711 FF nx; VG (Szot). 2230 FF talk; F (Zilmer).
- 4940 UKRAINIAN SSR, Kiev. 0406 clas piano, RR vocals; 0420 Moscow ID; continued in UU till 0530; G/P (Reeves). Atkins).
- 4945 COLOMBIA, R. Colosal. 0500-0545 LA pgms, mailbox; xmtr problems (Reeves, J. Davis, Mongolian, R. Ulan Bator. 1332 IS, into MM; 1400*; mix Kuching & China. Never hr'd RUB on this hard freq before! Also RR or MN xmtr on 4952.5 (Willis 1/30).
- 4950 SARAWAK, RMS. (T) 1435 EE nx, poss ID, 1450 FU (McCoy). 1530 Malay ID by W, then EE comments in mx pgm; 1559 NA, 1600*; VG (Szot). usual LA stuff.
- 4950 VENUEZUELA, R. Coro. 0238-0400* (J. Davis, Moritz), 1030 (Willis), 1107 (Jones).
- 4955 BRAZIL, R. Cultura dos Campos. 0421-0630 on late. PP talks, didn't seem sports; ID's for sev Brazilian stns; local ancr gave Campos ID's, otherwise net (Reeves).
- 4955 COLOMBIA, R. Nac. 0440 SS, nx relay from RN, BBC, RCI, etc. (Jones). 1131 EE lessons (American accent) for SS-spk listeners; G (Hauser 1/27).
- 4959 VENUEZUELA, 0243-0302 LA/US mx, bulletins, ID's (Tuchscherer, J. Davis 4960).
- 4960 ECUADOR, R. Fed. Sucia. 0055 Quechua talk, local mx (Zilmer). 0220 lively LA mx, 0229 ID, then US oldies (Tuchscherer).
- 4965 COLONIA, R. Santa Fe. 0230 SS mx, ID's; F (Ebrecht).
- 4968 SRI LANKA, SLBC. 1655 choir mx, EE ancts (Willis).
- 4970 VENUEZUELA, R. Rumbos. Now hr'd occurs well past listed s/off. 24 hrs (Bowlsby).
- 4972 FR. GUIANA, Cayenne. 2315 FF talk, light mx // 3385 (Wallace).
- 4972.5 CANERON, Yaoundé. 2015-2030 FF play (Padula).
- 4973 (T) ECUADOR, Rdif Tarquí. 1045 mention of Ecuador in slogan; G (J. Davis).
- 4976 UGANDA, Kampala. 2005 Swahili mx, 2010-2015 Af mx (Padula).
- 4980 GHANA, Accra/Ejura. 0705 EE ID; G (J. Davis).
- 4980 SWAZILAND, SNR. 0404 as late as 0600; US pop/rock mx, EE DJ's, ads, jingles (Wallace, Behr, Atkins, Jones, Straus). 1620-1745, ancd // 6155 (Willis, Bowlsby, Tyson).
- 4985 MALACASY REP., Tananarive Net 1. 1825 FF talks, discussion (Tyson). son).
- 4985 SULAWESI, RRI, Ujung Pandang. 2330 chants, Ind ancts past 0000; coming in via "E" mode (daylight; somewhat unusual for mid-Jan.); also *2130 ID, pgm nx (Padula).
- 4990 NIGERIA, Lagos/Sogunle. 0605 EE world, local, sports nx, ads(?), soul mx (McNeil).
- 4995 BRAZIL, RB Central. 0010 PP sports; G (McNeil). 0158 EL mx, ID (Courtney).
- 4995 N. VIET NAM, Hanoi. 1600 M&W in lang; gone 1650 RC; P (Bowlsby).
- 4995 PERU, R. Andina. 0526 ID; WWV QRM (J. Davis).
- 5005 SARAWAK, RMS, Sibu. 1052 Iban talk, string mx (J. Davis). 1410 lang by W // 4895; 6050 not hr'd (Bowlsby).
- 5005 UNID. LA under Siba (1052); only 250-watt R. Jaen listed; P (J. Davis).
- 5005 UNID. Af 2210-2225 Koran reading, W ancr, Af mx. Not Garoua/5010 hr'd 2200* same day (Abraham).
- 5010 CAMEROON, R. Garoua. 0545-0555 EE, Af nx, ID; many items about Cameroon; G (Lineback). 0630 FF, mention Garoua; Af mx; F (McNeil). 2020-2030 play in national lang (Padula). AA talk, 2200* NA; G (Abraham).

- 5010 PERU, R. Eco. 0421-0511 but no "eco" ancts. Let us mourn their pass ng (Reeves).
 5010 SINGAPORE, RS. 1532 EE nx by W; F (Szot).
 5012 COLOMBIA, Em. Surcolombiana. 0515 ID's, LA mx to 0530; is move up from 5012 and prevents ck for Rhodesia s/on (Perdue 1/26). 0620 1D, pops; G (Atkins 5010).
 5015 ASIATIC RSFSR, Vladivostok. 1650 pleasant light orch mx, vocals, frequent ancts; vy strong. // 4485 (G), 4040 (strong; RTTY QRM), 3995 (F) (H. Miller). ser.
 5015 GRENADE, RG. 2230-2325 EE, BBC pgms, sports (Lineback, Cress, Atkins, Zilmer, Hau-
 5015N SOLOMON IS. SIBS. Now testing here X-3995. Tuned 0930, Pidgin ancts; 1000 BBC nx; hr'd past 1100 atop Vlad and // 9545 (Willis 1/29). (T) 0900 mix Vlad in unID lang. Poor freq selection (Hauser 2/10).
 5018 ECUADOR, R. Centinela del Sur. 0320 British rock, pops, ID (Courtney).
 5020 CHINA, Nanchang, Kiangsi (L). 1605 W in CC; P (Bowlby).
 5021 NICAR. Niamey. #0530 NA, flute mx, lang ancts, AF chants. Also 0620-0705+; 0703 ID; 3260 not hr'd (Perdue). 2150 FF nx(?) 2204* clas NA (McNeil 5020).
 5023 UNID, LA w/ SS by W. Universo and Centinela listed (J. Davis). (Time? BH)
 5026 ECUADOR, R. Splendid. 0330 pops, ID; 0432* anthem (Behr).
 5026 UGANDA, Kampala. 1945 AF mx, 1950 Swahili ancts; is Blue Network (Padula).
 5030 VENEZUELA, R. Continente. 0142 ID "R. Reloj Continente"; G (J. Davis).
 5035 UZBEK SSR, Tashkent. 1227 IS, 1230 unID lang; // 6135 (Jaar). (6135 new freq? BH).
 5038 CENTRAL AF, REP. Bangui. 0514-0530 FF & Sango talk, typical string mx w/ chorus harmonizing (Earhart). 2030-2045 Af mx, FF talks; not as strong as in other years (Padula). 2200-2301 FF/vernac, Af mx, vocals (Courtney, McCarthy).
 5040 GUINEA-BISSAU, Bissau. 0620 AF vocals, string accomp, guitar mx; PP ancts w/ bits of ID's; F; still at it 0738 ck. My country #119 (Cress).
 5041 PERU, R. Libertad de Junfn. 0350 local mx, ancts (Abraham). 0425 same (Zilmer).
 5046+ JAVA, RRI, Yogyakarta. 1330-1400 Indo, bird-call IS, ID (L'back). 1630* (Bowlby).
 5047 TOGO, Lomé. 0621 FF conversation, 0631 brief mx, talk till 0635 (Earhart).
 5050 TANZANIA, RT. (T) #0300 chorals, chants, lang talk, Af mx to 0325+ (Perdue). 0320 kids' chorus in Swahili; E on 1/18 (Henderson, MD). 1945-1955 Af songs/rhythms, Swahili ancts; 1955 orch mx (Padula, Tyson).
 5053 MONGOLIA, RUB. Normal 1419* after nx in MM. Occ seems to alternate w/ 5035 for this pgm. Always G on 5035 under Singapore; only bet under RR on 5035 (Willis 1/29).
 5057 ALBANIA, Tirana. 0505 HS, 0515 Alb 1D; vy clear (Jaar). 0604 male chorus w/ some brass mx, talk in Alb(?) (Szot). 0635 Alb nx, 0649 ID "Ju flet Tirana" (Magne).
 5060 ANGOLA, RC de Huambo. 0430 OC, #0457 bird-chirp IS, 0500 chorus, "AP," PP ancts; past 0515 (Cress, A. Miller, Gavaras, Wallace).
 5075 COLOMBIA, R. Sutatenza. 0210-0310 pops, many ID's, promos (Dorbert, Levy).
 5110 UNID, LA ID'ing as "R. Eco" 2340-0500V. Peru from 5010? (Mayer 1/31 ff.).
 5192 ANGOLA, RC do Mexico. 0536 PP nx; P thru QRN-type noise (Henderson, MD).
 5260 SUMATRA, RRI, Sibolga. 1355 ID atop Alma-Ata (Willis).
 5265 UNID, 1105 wk FE stn. Nil listed (Jaar). (Is now PLA freq, Victor. BH).
 5290 ASIATIC RSFSR, Krasnoyarsk. 1220 RR mx, ancts (Willis).
 5310H CUBA, ID as La Voz de Cuba and R. Havana at 0900. Rebeldes harm or spur? (Reeves).
 5338.5 SAO TOME, Em. REG. ST. 0535 pops, 0603 gong, full PP ID, nx; 0608 pop songs, TC's to 0700 FO; VG (Behr 1/20). 2223 mx, songs; 2301* "AP" (A. Miller). 2358 lethargic pgm summary for next day, no discernible ID; off w/ "AP." Show some days but is missing on others -- not sure if irreg skd or propagation (Hauser 1/13).
 5491 JAVA, R. Univ. Gajah Mada. 1158 MSW talk, ID; 1200 college choral mx on 1/22. Indo speeches to 1400 on 1/31; G but overmodulated (Henderson, WA). (Dan, better not bet the family jewels on this one -- because the 2nd harmonic of Sinuju, N. Korea, is on this freq, has choral mx and is often overmodulated, and is here whenever ckd in AM's. Please double-check BH).
 5800 CHINA, Ururuchi, Sinkiang. 1554 Kazakh talk; P (Szot).
 5804.5 YEMEN, Sana'a. 0355-0400 AA talks, chants; VG w/ QRN (Straus).
 5873 HONDURAS, LV de H. 0152 talk; ute QRN (J. Davis).

Our thanks to the following hardy band of dial-twisters: Larry ABRAHAM, Bridgeport, MI (HQ180A); Kevin ATKINS, Shelby, AL (DX150B); Sam BARTO, Watertown, CT (HQ110C); Ernie BEHR, Ottawa, Ont. (SPR4/XCR30); Jeff BOWLSBY, Vancouver, BC (SP600); Darrell BUXTON, U.S.S. Enterprise, Arabian Sea (R390/R4B); Stanley CABRAL, Oakland, CA (R530); Rick CHARNES, Cherry Hill, NJ (HA230); Allan COURTNEY, Lexington, KY (SX190/F88Y); Hadley CRESS, Harrisonburg, VA (R4C/SX190); Bill DAVIS, Laguna Niguel, CA (homebrew/HRO50); Jim DAVIS, Travis AFB, CA (SX99); Bryan DORBERT, Baltimore, MD (S38D); Kenneth EARHART, Allentown, PA (SX190); Jim EBRECHT, Morocco (R390/Zenith T-0); Marlin FIELD, Hillsdale, MI (SX100); Adam GAFIN, Brooklyn, NY (Globe Traveler Pro); Tom GARAVAS, Wayzata, MN (HQ180); Glenn HAUSER, Enid, OK (HQ160); Dan HENDERSON, Laurel, MD (SPR4/HQ180A/SX190) (also WA and CA with the SPR4); Victor JAAR, Quebec, Que. (R530); Jack JONES, Jackson, MS (DX150A); Brian LEVY, Atlanta, GA (DX160); Jerry LINEBACK, St. Joseph, IL (SPR4); Larry MAGNE, Philadelphia, PA (R4B); Mildred MARSHALL, Devils Lake, ND (SX122); Alan MAYER, Park Forest, IL (SPR4/NC173/DX150B); Daniel McCARTHY, Terre Haute, IN (DX160); Bob MCCOY, Lincoln, NE (DX150B); Pitt McNEIL, Washington, DC (DX160); Jim MEEHAN, Berkeley, CA (SX190); Al MILLER, Youngstown, OH (HRD-500); Hubert MILLER, Seattle, WA (ARR15/SX190); John MORITZ, Youngstown, OH; Tom OVERCAMP, Bladensburg, MD (SP600); Bob PADULA, Victoria, Aust. (Marconi CR100); Pat PATTERSON, Decatur, GA (SX99); Neal PERDUE, Millington, TN (2C); Scott REEVES, Laurel, MD (SX190); Jerry SLAFF, Brooklyn, NY (KTR 1665); Myron SMITH, Spencerport, NY (NC188); Bill SPARKS, San Francisco, CA (R390A/R4B/HQ180A); Elliot STRAUS, Asbury Park, NJ (R390); Kevin SZOT, Vacaville, CA (NC183D); John TUCHSCHERER, Neenah, WI (HQ180/HQ100A); Craig TYSON, W. Aust. (9R-59DS); Steve WALLACE, Lewistown, PA (R4B/DX150A); Michael WILLIS, Victoria, Aust. (9RS9DE); Bob ZILMER, Milwaukee, WI (SPR4). Good listening -- CU all next month. 73, Bob (22)

LOG REPORT

Section B

EDITOR:

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Deadline; 12th of month

5900 - 11599 kHz

- 5900mf ISRAEL IBA; *0500 EE, nx, talks, into FF 0515-0530* (Moritz, Earhart, B. Davis); 2000 EE, nx; 2200 FF (Zilmer, Padula-Austl)
- 5905 USSR Yerevan; 2315 RR, classical mx, 50kw list (Magne) / (Magne)
- 5914v CHINA R. Peking; 2235-2255* Mongolian talks, jammers or similar QRM
- 5925 CANADA RCI; 0600 FF, talks by OM (Earhart) / (Moritz)
- 5930 CZECHOSLOVAKIA RP; 0116 EE, contest details (Mc Neil) 0345 EE DX px
- 5940 LITHUANIAN SSR R. Vilnius; 0030-0045 EE, cmntry (M. Smith)
- 5940 CHINA Harbin; *0840 CC/KK Foreign Svc. 1600-1730 Peking HS into Harbin px to 1800 f/o //4925 (B. Davis)
- 5980 SIERRA LEONE SLBC; 0730 EE, OM in political talk, ID, 0814 f/o(Cress)
- 5985 PAPUA/NEW GUINEA Rabaul; 2335 Pidgin, pop mx, ID (Padula-Austl)
- 5985 ARGENTINA R. Splendit; 0440-0535 SS, on late w/march mx (Reeves)
- 5990 RUMANIA R. Bucharest; 2100. EE to Eur (Staff); 0208 EE talk (Moritz); 0149 EE, Rumanian mx, YL w/talks (Jones)
- 5995 MALI R. Mali; 2255 Afr mx before CBC s/on (T. Fields); 0739 Vern talks Afr mx (Gaffin)
- 5995 AUSTRALIA RA; 1245-1300 EE, "Hit Parade" px (McCarty)
- 6000 BRAZIL R. Inconfidencia; 0258* PP, s/off after sports (Jones); *0804 PP, rel px, don't know how long ex *0900 (Reeves); 0820 PP, singing ID (Gaffin)
- 6000 HUNGARY R. Budapest; 0110 EE, nx, mx, cmntry (Staff); 0300 EE, nx (Jones)
- 6005 CANADA CFCX Montreal; 1500; 1900 EE, nx, pop mx (T. Fields, Moritz)
- 6006 COSTA RICA R. Reloj; 1220 SS, talks, mx (T. Fields) / Zilmer)
- 6010 VENEZUELA R. Los Andes; 1130-1216 SS, pop mx, ads, ID's(M. Field, Jones,
- 6012 ECUADOR HCJB; 0515 EE, "Call of the Andes". A spur from 5970 matching 5928. DXers looking for Antarctica are warned to rule this out before making assumptions! (Hauser)
- 6015nf ETHIOPIA ETLF; *1600 Amharic, mixing w/USSR (Willis-Austl)
- 6015 UNID, 0420-0522* Asian talks w/EE ancmnt, seemed rel px (Behr)
- 6015 Cf. Jan LR report of Em Paraguay at 0400 is unlikely; they never run past 0200. This can only be R. Mira (Behr)
- 6015 6025 PARAGUAY Em Paraguay; *0827 SS, mx, ads (Reeves, Cress, Henderson ECNA)
- 6025 PARAGUAY R. Nacional; 2345 SS, instr mx, songs, ID often strong and clear to 0015 or 0025 when Lisbon comes on (Behr) / (Jones)
- 6025 PORTUGAL R. Portugal; PP HS to Eur 0730* (Padula-Austl); 0234 EE, nx
- 6025 UZBEK SSR R. Tashkent; 1220 EE talk (Earhart); *1400 EE cmntry (McCoy)
- 6030 CANADA CFVP Calgary; 0700 nx, mx, ads under AFRTS (Reeves); 0810 EE, light mx barely readable under AFRTS (Henderson ECNA): Much better from WCoast with "Calgary Eye Opener" px at 1415 under Russian(Henderson WCNA)
- 6035 BOLIVIA R. Panamericana; 2345 SS, ID's, ads, mx to 0455*, ex 5978 (Behr); 0218 "Musica Instrumental" px (Jones); 1015 SS, mainly talks(Willis-Austl)
- 6035 CLANDESTINE Vo the Thai People; *1300 in Thai (Willis-Austl)
- 6035 RSFSR Khabarovsk(?) 0802 RR, ID as "Govorit Radiostansia Yunost" followed by RR mx, then nx by YL (Szot)
- 6035 USSR(Unknown site); 1229 RR, YL & OM in talks, mx (Jones)
- 6040 HUNGARY R. Budapest; *0758 ID's, theme into Greek for Eur (Padula-Austl)
- 6045 PERU R. Santa Rosa; 0320-0335 f/o SS, Andean mx, OM & YL talks(T' scherer)
- 6055 BELGIUM RBT; 0045 EE, "Belgium Speaking" (Ebrecht-Morocco, Levy)
- 6055 KUWAIT R. Kuwait; 0410 AA, mx. Poor (Mayer)
- 6060 USSR R. P. & P; IS at 1500 into CC ID, nx till 1509 (Szot)
- 6060 CUBA R. Habana; 0105 EE, nx, mx (T. Smith)
- 6060 ARGENTINA R. Nacional; 0913 SS, nx, "Musica Regional" (McCoy)

6065 USA WYFR; 2110 EE, rel talk (Staff) / (Moritz)
 6065 COLOMBIA R. Super; 0613 SS, LA mx, ID's (Staff); 0800 SS, many ID's
 6065 SPAIN RNE; 0225-0304 EE, nx, mx, cmntry (Jones, T. Smith, Moritz)
 6070 CANADA CFRX Toronto; 1500; 2330 EE, mx, ads (McNeil, Talbot)
 6070 VENEZUELA R. San Sebastian; 0118 SS, ads (McCoy); Fiesta mx to 0700*
 (Sparks); 0635-0655 SS, LA mx, NA at s/off (Gaffin)
 6070-72~~0~~ SWAZILAND TWR; 0330 Zulu, 0400 GG px (Behr); 0400 EE ID (Sparks); 0409
 GG rel px, hymns, EE ID 0430 (Mayer)
 6075 SRI LANKA SLBC; 1301 Hindi px, unid rel station under (Willis-Austi)
 6085 ZAIRE R. Kisangani(listed); 1950-2000* Zairese mx, FF nx (Reeves)
 6087 TAIWAN; 0950 Believe BCC reported here before, YL in slow CC talk (Hauser)
 6090 NIGERIA RTV Kaduna; 0715 first time heard this channel, ID 0715 (Henderson)
 6090 LUXEMBOURG RL; 2350-0200 EE, pops, nx, TC's (Atkins, Dorbert, T. Fields,
 Lineback, Moritz, Ebrecht-Morocco)
 6095 PERU R. Nacional-1080; 0315-0400 SS, ID's, Andean mx, exed by HCJB at
 0400 (Earhart, Behr)
 6095 PHILIPPINES VoA; 2245 EE px, fair (Bowisby)
 6095 GREECE VoA Kavala; 0545-0602 AA talk, nx, EE ID at 0600 into FF (Gaffin)
 6100 MALTA DW; 0110 IS, 0115 EE talk, pop mx (Atkins)
 6100 YUGOSLAVIA R. Belgrade; 2205 EE, nx, mx (Ebrecht-Morocco)
 6115 COLOMBIA LV del Liano; 2110 SS ID, mx, fair (Lineback) / (B. Davis)
 6115 MEXICO XEUDS Hermosillo; *1500-0140* SS, classical mx most of the day
 6115 FINLAND R. Finland; 2100 IS, s/on in Finnish (McCoy)
 6115 CONGO RTVC; 0542 FF, talks, mx (McCoy)
 6120 SWITZERLAND SBC; 0215 beginning of SS px (Jones)
 6120t INDIA AIR, Delhi; 1920-2018 Hindi style chants, OM ancr under R. Moscow,
 lost to DW s/on. Believed ex 6190 listed to 2145* Delhi HS (Reeves)
 6120 VENEZUELA R. Angostura; *0955 SS, NA, march mx, ID's (Jones)
 6125 COLOMBIA R. Continental; 2344 SS, nx and mx (Ravenhorst)
 6130 LAOS Rdifff Nationale Lao; 1200 w/TC, then nx in Lao (Willis-Austi)
 6130 UNID. AA station 1905-1920 OM in talk interspersed w/mx (Mayer)
 6130 GHANA R. Ghana; 2123-2235 EE, nx, rel mx //4915, 9640 (McCoy, Zilmer)
 6130 CANADA CHNX Halifax; 1300; 1630 EE, pop mx, ads (Dorbert, Moritz)
 6135 TAHITI R. Tahiti; 0615-0700* FF/Polynesian, talks, jazz mx(B. Davis, Meehan)
 6135 BORNEO RRI Samarinda; 0000-0100* Jakarta mx (Tyson-Austi)
 6135 POLAND R. Warsaw; 2301 Revolutionary Etude IS hetting Tirana (Hauser)
 6135 ALBANIA R. Peking; 2300 SS, Peking relay has moved here probably ex
 9780 (Hauser)
 6135 CHILE R. Universidad de Concepcion(presumed); 1030 definately Chilean
 w/show mx, nx items, TC for 7:30 (Hauser)
 6135 MALAGASY REP RTV Malagasy; 0200 Malache lang, Afr mx; also noted
 9690 at 0500 and in EE w/nx 1535 on 17840, some mx (T. Fields)
 6135 BRAZIL R. Guacha; 0025 PP, talk, mx, ID (Zilmer); 0900 PP, nx, anmmts(Gaffin)
 6140 AUSTRALIA VLW6 Perth; 1130 EE, sports (T. Fields)
 6140nf RUMANIA R. Bucharest; *2200 GG to Eur ex 5965, //5990, 7225 (Padula-Austi)
 6145 USSR R. Moscow; 2235 OM & YL in CC //6165 QRM DW (Bowisby) / (Bowisby)
 6146t NIGERIA NBC Calabar; 2237 US type mx, OM anc, YL in talks, NA 2305*
 6150 ENGLAND BBC; 0000 EE, World News. Unlisted freq (Zilmer)
 6155 BRAZIL R. Cultura da Bahia; 0045 PP talk (Zilmer)
 6155 AUSTRIA ORF; 0130-0330 EE, talks and mx (Dorbert, Levy, Moritz)
 6165 VATICAN Vatican Radio; 0100 EE, rel px (Zilmer)
 6165 USSR R. Moscow; 2225 YL in lang (KK?), IS 2230 into CC(?) (Bowisby)
 6165 NETH ANTILLES RN; #0529 IS into EE DX Juke Box px, nx (Hauser)
 6175.5 SWAZILAND TWR; 0330 Zulu; 0400 GG px (Behr)
 6175 COSTA RICA TIFC; 0345 EE, rel px (Moritz)
 6175 ENGLAND BBC; 0000 EE, nx (Talbot)
 6180 GUATEMALA R. Nacional; 0000 SS, jazz, lcl pop mx, many ID's, chimes,
 new station. International service (Zilmer)
 6180 CYPRUS BBC; 0515-0530 EE, piano mx, ancmnt saying regular px not available
 due to disturbed conditions between London and relay (Gaffin)
 6180t VENEZUELA R. Turismo; 1155 SS, talks, LA mx, no ID noted (Zilmer)
 6180 ARGENTINA R. Nacional Mendoza; 1030 SS, lcl mx and tangos, ID (Sparks)
 6180 NORWAY R. Norway; 0101 IS, EE/NN ID into NN px (McCoy)
 6185 LIBYA PRB Tripoli; 0650-0725 AA mx, talk that sounded like a drama. Good
 at first, but deteriorated badly by 0725 (Gaffin)

6185 LIBYA LBS El Beida; 2100-2130 AA talk, chants, very rarely heard (Behr)
 6188 ALBANIA(?) R. Peking; 2200-2256* Unid langs, sounded like Guarani and Quechua under heavy QRM. Are these langs listed in any Peking sketch? (Behr)
 6200 ALBANIA R. Tirana; 0130; 0330 EE, nx, cmntry (T. Smith, McCarthy, Luccola)
 6200nf USSR (Asiatic) R. Moscow; 0800-1400 RR HS (Willis-Austl)
 6230 PAKISTAN R. Pakistan; 2120 two OM in lang talks w/occasional EE; 2131 EE ID "This is Radio Voice of Pakistan" 2144* (Cress)
 6235 PAKISTAN R. Pakistan; 2112-2147* EE/lang, rock mx, contest questions, "World Svc of R. Pakistan" ID (Agner, McNeil) (/Bowlsby)
 6236 N. KOREA R. Pyongyang; 1636 OM in KK, some operatic type mx, //6400
 6280 CHINA Urumchi; *1100 in either CC or Uighur (Willis-Austl)
 6345 CHINA R. Peking; 1115-1130 CC, talks, mx (T. Fields) / WCNA)
 6383 N. VIETNAM Tay Bac; 1204; 1235-1245 VV lingo, Icl mx (Mayer, Henderson
Note to Bill Whitacre; Your Mongolia(t) is probably this....See Feb LR 6380
 6550nf CHINA R. Peking; *2130 JJ to Japan. Unlisted by BBCMS (Padula-Austl)
 6560 CHINA R. Peking; 2120 FF to Eur/Afr (Padula-Austl)
 6580 N. KOREA R. Pyongyang; 2127 EE to Eur (Padula-Austl)
 6600 N. KOREA R. Pyongyang; 2300 KK, YL w/ID, TC into Icl songs (Mayer); 2120 HS with KK talks (Padula-Austl) / (Willis-Austl)
 6620 CHINA Hanchow; 1045 CC, reading out National People's Congress membership
 6665 CHINA R. Peking; 1040 CC HS. Unlisted freq (Willis-Austl)
 6735 CHINA R. Peking; 2220 YL w/CC talk, then opera (Mayer)
 6790 CHINA R. Peking; 2115 CC to Taiwan //1100(Padula); *1040 (Willis-Austl)
 6825 CHINA R. Peking; 1554 in Hindi //6520 (Szot)
 6860 CHINA R. Peking; *2230 YL in Quecha talk, not listed in latest BBCMS(Mayer)
 6890 CHINA R. Peking; 2310 OM in CC talk (Mayer)
 6900 TURKEY Turkish State Meteorological Svc; 0059 & 0611 checks thru utility station's open carrier (Reeves); 1420 continuous mx, few anmts in TT(Willis)
 6935 UNID. 2310 SEA station, OM in lang talks (Mayer)
 6955 CHINA R. Peking; 1245-1255 OM in KK talks (Mayer)
 6965 TURKEY Bandirma Meterology Radio; 0601-0609, Icl chants (Reeves)
 6995 CHINA R. Peking; 1610 OM in Swahili reading nx (Szot)
 7015 CHINA(?) Voice of the National United Front of Kampuchea; 1120 OM & YL alternating w/nx items in Khmrc (Hauser)
 7065 ALBANIA R. Tirana; 1608 FF cmntry (Szot); 2126, mx(Ricchezza); 0026* ending EE px into ID and off (Jones)
 7075 EGYPT R. Cairo; 0630 AA HS //9455 (Willis-Austl)
 7080 CHINA R. Peking; IS 1600, OM & YL in Hindi into nx (Szot)
 7100 UNID. 1235-1249 believed to be one of six USSR stations listed this freq OM & YL voices, RR type mx (Earhart)
 7105 MALTA RCJ; 2115-2155 EE, ID as from Malta, then R&R mx (Earhart, McNeil)
 7105 A.ONACO TWR; 0745-0805 EE, "Back to the Bible" rel px (Cress, Dorbert)
 7110 JAVA RRI Yogyakarta; *0955 Icl ID (Padula-Austl); 1136-1245 EE, chimes, pop mx, GG lang lessons (Schwarz, Hauser)
 7120 CHAD Rdif Nationale Tchadienne; 0750 Afr chants, drums (Padula-Austl); 0731 over BBC in Vernaculars, much Afr mx (Willis-Austl)
 7130 MALAWI MBC; 1610-1715* in Chichewa over USSR. Is 100 kw (Willis-Austl)
 7130 ENGLAND BBC; 0042 EE, talk on musical composers (A. Miller)
 7145 POLAND Polish Radio; 0703 polish talks, some mx (Earhart)
 7150 UKRAINIAN SSR R. Kiev; *0030-0055* EE, nx, cmntry, DX px (Ravenhorst, A. Miller, Talbot)
 7150 USSR R. Moscow; 0140 EE, nx and cmntry //7105, 7165, 7205 (Jones) / (Padula)
 7155nf HUNGARY R. Budapest; *0758 Greek Svc here Sun only //6040, 9555, 9585
 7160 SARAWAK R. Kuching; 0925 CC Svc, talks (Padula-Austl)
 7160 USSR R. Moscow; IS 1629, RR ID by YL, OM w/nx (Szot)
 7165 GREECE VoA Kavala; *0158-0229* ID into lang px (McCoy).
 7170 USSR R. Moscow; IS to 1631 OM w/ID in CC into CC px (Szot)
 7170 NEW CALEDONIA R. Noumea; 0635 FF, vocals, many ID's (Cress); 0815 FF, talks, classical mx (Earhart); 0120 FF, s/off 1100* (Willis-Austl)
 7170 MOROCCO VoA Tangier; 0200 end of EE into Hungarian (Dorbert)
 7175 S. VIETNAM VTVN; 0915-0930 VV, songs and anmts (Padula-Austl)
 7180nf ISRAEL IPA; 2215 FF talks //7395 (Zilmer, Padula-Austl)
 7180 MALAYSIA BBC Tebrau; 1817 EE (Bowlsby)
 7180 HUNGARY R. Budapest; 2200-2230 SS to Spain (Padula-Austl)
 7195 ALGERIA RTA; 0745-0755 AA, AA mx and vocals (Earhart)
 7195 JAPAN NHK; 1825 GG, 1830 EE ID, nx (Bowlsby)

- 7192 WEST IRIAN RRI, Jayapura; 0230-0240 Indonesian TC and talk, then r. x px.
Add to sked in WRTH 1975 (Padula-Austl)
- 7195 ALGERIA RTA; 0745-0755 AA, AA mx and vocals (Earhart)
- 7200 USSR Yakutsk; 0725 HS, poor (Bowlsby)
- 7215 IVORY COAST RTI; 0718-0745 FF, talks, Afr mx (Atkins); 0613 FF, Coke ad (McCoy); 0800-0830 FF, anmmts, Afr mx. Seems to s/on 0800 and not 0630 but sked needs recheck (Padula-Austl)
- 7215 UNID. 1300-1350 VV station playing light mx, no IS on hour, programming rather like M. of Vietnam on 7085, so perhaps is the Voice of Patriotic Militia-men's Front returning. Was not China, Hanoi, or USSR (Willis-Austl)
- 7216 BRUNEI R. Brunei: f/i 0155 to about 0220 CC svc (Padula-Austl)
- 7215rf UNID. 1735 OM & YL in SEA lang, pleasant string mx (Bowles*)
- 7220 GREECE HNBL; *1500-1550* replaces 7295 (Willis-Austl)
- 7225nf AUSTRALIA RA; 1110 EE, pop mx (Zilmer)
- 7230 RUMANIA R. Bucharest; *1500 EE Svc (Willis-Austl)
- 7234 JAPAN NHK; 0759 JJ, time tone 0800 and ID (Bowlsby) / (Reeves)
- 7235 NIGERIA ECBS; 0545-0915 c/EE nx on the hour, ads, jingles, rock mx
- 7235 W. GERMANY DW; 2110 SS, mx, off 2114* (Ricchetta)
- 7245 ANGOLA Em Oficial: 2322-0002* PP, pops, anmmts (Bowlsby, Padula-Austl)
- 7245 MAURITANIA RNM; *0801 into Koran readings, AA anmmts 0810, national mx and talks, Sun only svc, when 41mb outlet comes on for daytime px. Audible to about 0900 (Padula-Austl)
- 7250-55v GUINEA Rdif Nationale; 0355-0410 FF, OM in talk followed by Applause (Earhart); 0455 FF talks, Afr mx (Atkins); 0757 drum mx, FF talks (Padula); 0315 FF, ID as "Radio Nationale" FF vocals (McCarthy)
- 7260 USSR R. Moscow; 0331 OM w/freqs, nx by YL (Szot); *0801 JJ //7280(Bowlsby)
- 7265 W. GERMANY Sudwestfunk; 0100 GG, ID, mx, rock mx (A. Miller); 0500-0515 GG, folk mx, IS (Schwarz)
- 7265 PAKISTAN R. Pakistan, Karachi; *0130 ID and into px in national lang, seems to be a NF as unlisted in sked I have. Listed ITU 0130-0430 (Padula-Austl)
- 7270 SOUTH AFRICA Radio RSA; 0310; 0415-0430 EE, talks, "Good Morning to Africa" px (Szot, Staff, Atkins, Marshall, Zilmer)
- 7270 GREECE VoA Kavala; 1801 RR talk then QRMed (Bowlsby) / Tobin)
- 7275 NIGERIA VoN; 0645-0730 EE, nx, cmntry, pops (Schwarz, Atkins, T. Field*,
- 7276 CHINA Kweiyang; 1011 CC programming (Willis-Austl)
- 7280 GREECE VoA Kavala; 0430-0445 EE, "Breakfast Show" (Dorbert)
- 7280 LIBERIA VoA Monrovia (Listed); 0327 EE px (Szot)
- 7280 USSR R. Moscow; 0803 RR anthem into JJ px //7260 (Bowlsby)
- 7285 POLAND R. Warsaw; 2245 EE, cmntry (Ebrecht-Morocco)
- 7300nf YEMEN ARAB REP R. Sanaa; 1500 now here in Arabic //5840 (Willis-Austl)
- 7320nf ENGLAND BBC; *1500 Polish px, ex 7325 (Willis-Austl)
- 7325 ENGLAND BBC; 0034; 2302 EE, talks, nx, cmntry (A. Miller, Mc Neil)
- 7345 CZECHOSLOVAKIA R. Prague; 0145 EE, "World Monitor" px (Tobin, Boccola)
- 7355 LITHUANIAN SSR R. Vilnius; 2239; 0031-0059 EE, nx, cmntry (McCarthy, A. Miller, Ravenhorst, Talbot)
- 7390nf ISRAEL IBA; here one day only for Soviet px only, returning to 7395 for EE & FF 1/18 RR 1915-1955* (Magne) / (Atkins, Buccola)
- 7395 ISRAEL IBA; 2000-2054* EE, nx, folk songs (McCoy, Staff, Zilmer, Tobin,
- 7415 ISRAEL IBA; *1715-1755* lang, pips, ex 7440 (Magne)
- 7440rf ISRAEL IBA; here again one day only 1/19, ex 7390, 7395; RR *1800 but un-jammed until 1810, apparently this shifting about is to elude Soviet jammers (apparently partially successful) (Magne) / (Willis-Austl)
- 7670 BULGARIA R. Sofia; 0700; 1500-1600 HS in Bulgaria, mostly classical mx
- 7863 THAILAND Thai Meteorological Station; 1245-1330* EE/Thai wx infro, anmmts, pop mx, ID (Schwarz)
- 8007.5nf CHINA R. Peking; 1400-1500 (Willis-Austl)
- 8404 CLANDESTINE Voice of the Free South; 1330 in AA //5345 (Willis-Austl)
- 9009 ISRAEL IBA; 2230-2245* Talks in lang (Zilmer)
- 9022 IRAN R. Iran; 0600-0800; 1600 HS in Farsi, Icl mx (Mayer, Padula, Willis); Voice of Iran; 2000-2030* EE, nx, Icl mx, pop mx (Ebrecht-Morocco, Dorbert, Moritz, Tobin, A. Miller, Lovett, McNeil)
- 9340 N. KOREA R. Pyongyang; 2246-2251 KK talks, mx and off (Wockner)
- 9360 SPAIN RNE; 2254 SS, YL in talks, ID, mx (Wockner)
- 9380 KAZAKH SSR R. Alma Ata; 0150 RR, OM in tal s, Icl mx (A. Miller)
- 9410 ENGLAND BBC; 2045-2115 EE, classical mx (Marshall) / (Padula-Austl)
- 9425 CLANDESTINE VoThai People; *0300 theme mx into Thai tal sbj YL

- 9445 CANADA; Is the correct freq for all the LR-B Feb reports except mine, which was 9455 apparently a spur (Hauser)
- 9460 CHINA R. Pe'ing; 0128 ON in SS // 11650 (Bowlsby)
- 9475 EGYPT R. Cairo; 0200-0230 EE px to NoAmer(Ebrecht, Moritz)
- 9480 CANADA; Cf Feb LR is not via COTC. McFarland tells me all their present out-of-band freqs are Sackville. This one was replaced in late Nov by 9445, so Robin's logging is questionable unless old (Hauser)
- 9480 ALBANIA R. Tirana; 1830 EE, OM & YL w/nx (Buccola)
- 9480 USSR Chita; *0230-0530-0630 f/o CC px, weak QRM Peking (B. Davis)
- 9495 ISRAEL IBA; 2220 Hebrew HS, talks, mx (Zilmer)
- 9500 ALBANIA T. Tirana; 1115; 1850-1900* EE, cmtry (Ebrecht, Moritz)/ Meehan)
- 9505 DOMINICAN REP RTV Dominicana; *2200 w/piano IS, NA, SS ID (McNeil,
- 9510 PERU R. America; 0100 SS, ID, QRM BBC (Meehan)
- 9510 TAIWAN VoFC; *0400 into CC px (Willis-Austl) / (Bowlsby)
- 9510 RWANDA DW Kigali; 1710 end Swahili into EE 1715, not listed WRTH-75
- 9515 MEXICO LV de la Amer Latina; 1525 SS, ads, talks, ID (Magne)
- 9520 NEW ZEALAND NZBC; 0640 EE, "Arthur Cushing's DX World" (T. Fields)
- 9520 CHILE R. El Morro; 0700 SS talks, Andean mx, mixing w/NZCB (T. Fields)
- 9520 FRANCE ORTF; 1720 FF, OM & YL in talks, light orch mx //11940(Bowlsby)
- 9525 LEBANON R. Lebanon; 0255-0300 EE, station info into SS 0300 (A. Miller)
- 9525 ITALY RAI; *1830 li to CeAmer (Moritz) / Schwarz)
- 9525 SOUTH AFRICA Radio RSA; 2100-2134 EE, nx, talks (Marshall, Buccola)
- 9525nf FRANCE ORTF; *0600 into FF px, seems to replace 9620 (Willis-Austl)
- 9529t JORDAN R. Jordan; 1530-1610 EE, non-stop pops, hets 9530, YL w/ID as "This is R. Jordan broadcasting from Amman." Only Eur px listed in EE at this time and only on MW per BBC MS so presume this is expansion (Magne)
- 9530 LIBERIA VoA Monrovia; 2050 RR (Bowlsby)
- 9540 USSR Petrovavlovsk-Kamchatsk; 1735 Mayak px //9450 (Bowlsby)
- 9540 UZBEK SSR R. Tashkent; 1218-1228 EE, talks by OM into lang 1230 (Urdu per WRTH) (Earhart)
- 9545 AUSTRALIA RA; 2035 EE, features, pop mx, ID (McNeil)
- 9545 GHANA R. Ghana; 2140-2200 EE, tourist talk (Dorbert, Bowlsby) / (Willis)
- 9545 SOLOMON ISLANDS SIBC; 0954 EE, anced this freq // to new 5015, under VoA
- 9545 SOUTH AFRICA Radio RSA; 2040 FF //11900, ID 2046 (Bowlsby)
- 9550 LEBANON R. Lebanon; 0230 EE, nx and rms (Moritz)
- 9550 CHILE VoChile; 0037-0045 EE, nx, ID's (Atkins) / (Padula-Austl)
- 9550 TANZANIA Dar-es-Salaam; *0700-0800 Swahili anmts, nx, talks, national mx
- 9550 CUBA R. Habana; 1202 still on in SS following 1100-1200 Creole px; presumably in error, as not sked (Hauser)
- 9555nf HUNGARY R. Budapest; *0800 Sun svc in Greek //9585, 6040, 7155 (Padula)
- 9555 LIBERIA ELWA; 1810 IS to 1815 YL w/ID. Lang unknown (Bowlsby)
- 9560 JORDAN R. Jordan; 1700-1730* talk about CIA, mx. Weak (Bowlsby) Lang?
- 9560 SOUTH AFRICA SABC; 0645 Afrikaans, pops and anmts (Padula-Austl)
- 9562 PERU R. Nac de Peru; 1115 SS, mx, talks, many ID's (Zilmer)
- 9565-67v CHILE VoChile; 0040; 0238 EE, nx and talks, ID's (Lovett, Schwarz, Buccola, Zilmer, A. Miller); 0105 SS (Earhart)
- 9570 SPAIN RNE; *1000 in SS, QRM TWR Bonaire(Willis-Austl); 1225 SS, px is one hour earlier than published sked (Earhart)
- 9570 CHILE R. Portales; 1130; 0204 SS, talks, ads (Zilmer, Lovett)
- 9570 QATAR QBC; 0430-0500 AA, mx, anmts by OM, ID (Buxton)
- 9575nf YEMEN ARAB REP; R. Sanaa; 0400-0430 AA, chants, anmts ex 9585 (Padula)
- 9575 ITALY RAI; 2237 II, YL & OM in talks, classical mx (A. Miller); 0105-0120* EE, nx, closing anmts (Atkins); *1830 OM & YL in II (Bowlsby)
- 9575 USSR R. Moscow; IS 1800 into lang; 1830 EE (Bowlsby)
- 9576 EL SALVADORE R. Comercial(listed); 1405-1442 definite Mex/CA mx and SS DJ cycling in and out just above RAI/AIR 9575 (Reeves)
- 9580 AUSTRALIA RA; 1130-1215 EE, nx, "World of Music" px (McCarthy)
- 9580-80.3v NICARAGUA R. Mar; 1230 SS, ID sounded R. Mar (T. Fields); 1258 SS, OM gave ID then lost to QRM Moscow (Earhart); 1530-1540 SS, US pops, "Music for all of Nicaragua" px (Magne)
- 9585 JAPAN NHK; 0200-0230; 0300-0330 EE, Gen Svc (Padula-Austl); 1200 EE, nx DX tips (Moritz); 1805 end of EE px, ID (Bowlsby)
- 9585nf FRANCE ORTF; 0500-0530 FF variety show (Padula-Austl)
- 9590 ROMANIA R. Bucharest; 1515-1530 EE, youth px (Atkins)
- 9590 USSR (Far East?) 1822 Mayak px //9540, 9450 (Bowlsby)
- 9590nf NORWAY R. Norway; EE "Norway This Week" px (Zilmer)

- 9593t BRAZIL R. Cultura da Bahia(list 9595); 0855 PP talk, hetting 9595 (Hauser)
 9595 JAPAN NSB; 2322 JJ, classical mx, JJ anmts (Hauser); 0040-0500 JJ
 (Willis-Austl)
 9605 VATICAN Vatican Radio; 0100 EE rel talk (McNeil, Dorbert) / Jones)
 9605 CZECHOSLOVAKIA R. Prague; *1430 EE, Asian Svc w/nx review (Zilmer,
 9605 JAPAN NHK; 1839 ending EE nx, ID (Bowlsby)
 9612 ETHIOPIA R. Ethiopia; 1251 Amharic, here for Sun beast (Willis-Austl)
 9615 MOROCCO RTVM; 1840-2000 f/o AA, chants, talks, orch mx (Bowlsby)
 9615 VATICAN Vatican Radio; 2220 EE, talk on Christian doctrine (Raventhal)
 9620 YUGOSLAVIA R. Belgrade; 2211-2215 EE, talk on skiing (Mayer, Tobin)
 9625 CANADA RCI; 2030 EE, Max Ferguson Show (Marshall)
 9625 INDIA AIR; 0200-0215* National langs (Padula-Austl)
 9625 VATICAN Vatican Radio; 0105 EE, rel px (Moritz)
 9630 SIERRA LEONE SLBC; *0745 relaying DW, EE anmt saying this relay was test
 then into mx and possibly FF px (Willis-Austl); 2005-2014 EE, US rock and
 roll w/ID between each song as test transmission, not DW at this time(Mayer);
 Not n ted 2000-2055 period any more since Jan 9, but DW noted using this
 freq via Sierra Leone's facilities 2055 IS onwards; Cf Feb LR Sierra Leone tx
 is 250kw not 300 kw (Magne)
 9630 ISRAEL IBA; 2000-2030 EE, nx about Israel (Lineback, Zilmer)
 9630nf FRANCE ORTF; *1700 EE to Afr, new svc (Willis-Austl) / (Padula-Austl)
 9640 S. KOREA KBC; 0130-0200 JJ svc into KK 0200; JJ svc is new and unlisted
 9645 COSTA RICA TIFC; 0315-0340 EE, rel px (Atkins, Levy)
 9645 VENEZUELA R. Bandeirantes; 0915 SS, lcl mx (T. Fields)
 9650 GUINEA Rdifff Nationale; 0734 FF, Afr pop mx, anmts past 0900 (Padula-Austl)
 9655 W. GERMANY DW; ending GG 1750* w/IS //9590 (Bowlsby)
 9655 JAPAN NHK Yamata; f/i 0105 JJ talks and modern mx (Padula-Austl)
 9655 UNID. 2005 YL&OM in talks in lang to 2030, then GG. Could be Syria, but
 doesn't coincide with sched (Bowlsby)
 9655 CANADA RCI; 0314 EE, talks and mx (T. Smith) / (Slaff, Moritz)
 9660 VENEZUELA R. Rumbos; 1140 SS, ads (Willis-Austl), 0500 SS, ads, many ID's
 9665nf FRANCE ORTF; *1800-1808 FF, OM&YL in talks, short mx selections. Not
 listed 1974 WRTH (Earhart)
 9665nf USSR R. Moscow; 1230 AA, //1755 over RM CC svc (Willis-Austl)
 9675 PERU R. Del Pacifico; 1300 SS, many ads, ID as 640 kcs and 102 mcs FM;
 SAH, then mixing w/RM IS (Hauser) I give up! What's SAH? - MRL
 9680 CANADA; Cf. Feb LR at 1800 is listed as 9690 , and in any event it's Malta,
 not Canada (Hauser)
 9680 SOUTH AFRICA SABC; 0710-0745 EE svc, pops, anmts (Padula-Austl)
 9680 AUSTRALIA VLH/R9 Melbourne; 0820 EE, classical mx (Meehan)
 9690 ARGENTINA RAE; *0300-0335; 0556-0610 EE, cultural px, folk mx, talks
 (Dorbert, Jones, Levy, Moritz, Buccola)
 9690 RUMANIA R. Bucharest; 1315-1325* EE, "Listener's Club" px (Zilmer)
 9695 AUSTRALIA RA; 0901 Indonesian, nx by OM, mx, mixed chorus (Earhart)
 9700 BULGARIA R. Sofia; 1940-2000*; 000-0055; 0400-0430 EE, nx, cmntry,
 features (Buccola, T. Fields, Staff)
 9700.7 BULGARIA R. Sofia; 2108 FF, hetting AFRTS 9700, WRTH-75 says this xmntry
 and the so-called NA svc are actually beamed due west (Hauser)
 9705 INDIA AIR; 1240-1250* Tibetan(?) YL in talk, no mx (Earhart)
 9705t BRAZIL R. Maua; 0230-0237 PP, talks, Brasilian mx, no ID (Earhart)
 9710 SOUTH AFRICA SABC; 0530; 0730; 1445 EE, nx, wx, ads (Tobin, Padula, Z'mer)
 9715 KUWAIT R. Kuwait; 1835-1845 EE talks on mid-east (Schwarz)
 9715 CONGO RTVC; 2157 FF, "LV du Rev Congolais" ID (McCoy)
 9730 BURMA Rangoon; 0240 Burmese songs (Padula-Austl)
 9730 BELGIUM RTB; 2255 EE, "Belgium Speaking" (Zilmer)
 9745 IRAQ R. Baghdad; *1928-2018* EE, nx, talks, AA mx; 2020 GG; 2110 FF
 (Bowlsby, Ricchezza, Moritz, McNeil, Talbot, Tobin, Slaff)
 9750 TAHITI R. Tahiti; 0350 Tahitian talk // 15170, 11825 (Hauser)
 9750 VENEZUELA R. Occidente; 2000 SS, usual LA format, many ID's (Charnes)
 9760 JAPAN NSB; f/i 0120 daytime freq, JJ talks and cultural px (Padula-Austl)
 9765 USSR R. Moscow; HS fm 1100-1500 plus. Believed from Leningrad (Willis)
 9770 HAITI 4VEH; 1155-1346 EE, rel px, nx, wx (Moritz, Zilmer, A. Miller, Buccola)
 9770t SAUDI ARABIA BSKSA Riyadh; 1924 AA, drama, AA talks by OM, chants
 9770 AUSTRALIA RA; 1500 EE, nx (Zilmer) / (Bowlsby)
 9780 ALBANIA R. Tirana; 0000 EE, nx by YL (Buccola)
 9805 Egypt R. Cairo; 2200 EE, nx .cmntry (Buccola)

9810 CLANDESTINE Mother of Vietnam; 0315-0320 VV talks (Padula-Austl)
 9815 ISRAEL IBA; 2235 talks in lang (Zilmer)
 9833 HUNGARY R. Budapest; 2245-2255; 0105-0130* EE "Calling DXers" px
 (Zilmer, Dorbert)
 9840 AZERBAINAN SSR R. Baku; 1420 in Iranian (Willis-Austl)
 9840 N. VIETNAM; HS px now here (not // 10068) w/VV talks, mx 2330-2350,
 probably HS-2 Unlisted WRTB-74; also noted 1000-1100 (Padula-Austl)
 9912 INDIA AIR; 2147; 0100 EE, 1cl nx, press review (T. Fields, McNeil)
 9952nf N. VIETNAM Hanoi; 0300-0330 HS-1 noted here //10068. Unlisted (Padula)
 9982 CLANDESTINE VoNUFK; *2355 w/long musical ceremony into Thai talks
 and mx 0000 //10079, 10018 (Padula-Austl) / (Padula-Austl)
 9991nf N. VIETNAM Hanoi; 0300-0400 HS-1 //10068, 9952, but different px to 9840
 10041 N. VIETNAM Hanoi; now here w/rearranged px sequence including SS in
 overseas svc // 12035 throughout. Partial monitored sked includes: 2130 KK;
 2300 CC; 2330 Thai; 0000 Malay; 0030 Indonesian; 0100 EE; 0130 EE; 0200 SS;
 0230 FF; 0300 SS; 0330 CC; 0400 CC; 0430 FF; 0500 FF (Padula-Austl)
 10068 N. VIETNAM Hanoi; 2200-0500 f/o HS w/VV talks, mx (Padula-Austl)
 10079 CLANDESTINE VoNUFK; *2358-0230 f/o in Thai; *0400 Thai // 9991,
 10018 (Padula-Austl)
 10110 CLANDESTINE REI; 2000-2010 SS, nx, slight jammer (Mayer)
 10112 CLANDESTINE REI; 2230-2330; 0600-0700 SS, political talks (Padula-Austl)
 10118 CLANDESTINE VoNUFK; *2358-0200 f/o (or s/off) Thai; *0400, gone by
 0500 (Padula-Austl)
 10225 CLANDESTINE R. Liberation; *2200-0030* HS in VV (Padula-Austl)
 10530 KAZAKH SSR; R. Alma Ata; 1342 RR talks, mx (A. Miller)
 10530 MONGOLIA Ulan Bator Radio; *0820-0848* Mongolian, YL&OM talks,
 classical mx, ID at either s/off or half hour. SHOULD BE AUDIBLE IN USA
 (Willis-Austl) Is a recent NF (Padula-Austl)
 11040 CHINA R. Peking; 0050 HS-2 CC talks, mx (Padula-Austl)
 11505 CHINA R. Peking; 0740 HS-1, CC rev songs (Padula-Austl)
 11535 N. KOREA R. Pyongyang; 0740 KK, martial mx and talks (Padula-Austl)

Forty nine reporters this month for the expanded "B" section.....
 Mike AGNER, Waldwick, NJ (SX110)... Kevin ATKINS, Shelby AL (DX150B)... Ernie
 BEHR, Ottawa, Ont., Canada (R4B/XCR30)... Jeff BOWLSBY, Vancouver, B.C., Canada
 (SP-600)... Gary BUCCOLA, Dixon, IL (NC-105)... Darrell R. BUXTON, Aboard the
 USS Enterprise in the Arabian Sea (R4B/R390)... Rick CHARNES, Cherry Hill, NJ
 (HA-230)... Hadley D. CRESS, Harrisonburg, VA (SX190/R4C)... Bill DAVIS, Laguna
 Niguel, CA (Homebrew)... Brian K. DORBERT, Baltimore, MD (S-38D)... Kenneth A.
 EARHART, Allentown, PA (DX150A/SX190)... James W. EBRECHT, USN, Morocco,
 (R390/Zenith Transoceanic).... Marlin A. FIELD, Benton Harbor, MI (SX100)... Tony
 FIELDS, Portage, MI (DX150A/TRS-26/S-38E)... Adam GAFFIN, Brooklyn, NY (Globe
 Traveler Pro)... Glenn HAUSER, Enid, OK (HQ 160)... Dan HENDERSON, Laurel, MD
 (ECNA), State of Washington (WCNA)... Jack R. JONES, Jackson, MS (DX150A)... Brian
 E. LEVY, Atlanta, GA (DX160)... Jerry A. LINEBACK, St. Joseph, IL (SPR4)... Brandon
 LOVETT, Coldwater, OH (DX150A)... D.C. McCARTHY, Terre Haute, IN (DX-60/WR600W)
 Bob MCCOY, Lincoln, NE (DX150B)... Pitt McNEIL, Washington, DC (DX160)... Lawrence
 W. MAGNE, Philadelphia, PA (R4B)... Mildred MARSHALL, Devil's Lake, ND (SX122)...
 Alan MAYER, Park Forest, IL (SB-310/DX150B/NC-173)... Jim MEEHAN, Berkeley, CA
 (SX190)... Albert A. MILLER, Youngstown, OH (HRO-500)... John MORITZ, Youngstown,
 OH (DX160)... Bob PADULA, Surrey Hills, Victoria, Australia (CR-100)... Greg RAVEN-
 HORST, Clarks Grove, MN (R4C)... Scott REEVES, Laurel, MD (SX190)... Ed RICCHEZZA,
 Philadelphia, PA (SW4A)... Kari SCHWARZ, Ft. Wayne, IN (DX150B)... Jerald SLAFFE,
 Brooklyn, NY (KTR-1665)... Myron SMITH, Spencerport, NY (NC-188)... Todd SMITH,
 Wilton, CT (GR-64)... Bill SPARKS, San Francisco, CA, (R390A)... Kevin M. SZOT,
 Vacaville, CA (NC-183D/CRM-R6A)... Larry TALBOT, Menomonee Falls, WI (SB-313)
 John TUCHSCHERER, Neenah, WI (HQ100A)... Craig TYSON, Wembley, Western
 Australia, Australia (9R59DS)... Bill WHITACRE, Lansing, MI (R4B/SX-96)... Michael
 WILLIS, Hampton, Victoria, Australia (9R59DE)... Rex WOCKNER, Watska, IL (SX28)
 Robert ZILMER, Milwaukee, WI (SPR4)

LOG REPORT - C 3-75

Frequencies 11600 kHz up

Reports to: Jerry A. Lineback

P. O. Box 325

St. Joseph, IL 61873

Next deadline: 15 March 1975

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- 11600 CHINA RP; 0930 EE, nx, mx, cmntry, excellent (Fields)
 11643 ISRAEL IBA; *1800-1815* Ladino (Jewish Spanish), nx, Israeli mx, minor jammer
 QRM at 1815, //9495, fair with only 20 kW (Magne)
 11672 PAKISTAN R Pakistan; 1539-1557 f/o, EE annts by OM, no ID, US pops and local
 vocals, poor (Schwarz 2-1)
 11685 SAUDI ARABIA BSKSA Riyadh; *0458 IDs, theme, anthem, into Koran, Turkish px,
 was NF some time ago, but unheard till now, improved propagation, (Padula-A 1-26)
 11698.9-11700 DOM REP R Clarin; 1729-1800, 2256, 2352, 0100-0400, SS, nice mx, ads, many
 IDs, freqs given, good (J. Davis, Meehan, Cole, Slaff, Gaffin)
 11700 UNID 1152-1210 Asian lang, AA like mx, then talk in AA or similar, short US style
 mx, poor (Earhart 1-26). RBI sched in AA, USSR or IBA other possibilities.
 11705 FRANCE Radio France International (RFI); 1700 EE, Paris calling Africa, fair
 (Zilmer 1-26). Reports of the imminent demise of shortwave radio broadcasting in
 France have apparently been exaggerated. Note the several EE/FF programs to
 Africa and the FF HS relays noted in this LR. A new program sched for the African
 service shows continuous programming from 0400-2200 daily on several freqs. 11705
 sched 1700-2200 to West Africa.
 11705NF USSR RM; 1130-1230 EE to the UK, //11830, 11745, (Willis-Australia 1-11)
 11710 ARGENTINA RAE; 2300-2305 EE, nx, cmntry, mx, px called Argentine Chronicle, fair-
 good (Ebrecht-Morocco, Buccola 1-24)
 11710 FRANCE RFI; 1705-1725 EE, Paris Calling Africa, FF at 1725, //15300, good
 (Gaffin 1-24). Sched says 11705, 11710 used 0600-0800 only by sched.
 11710 NEW CALEDONIA ORTF Noumea; from 0655, FF pops and vocals, fair //7170 slightly
 better, (Cress 2-5). //7170 would indicate Noumea, RFI sched to west Africa
 on 11710 0600-0800 in FF.
 11720 BRAZIL R Nac; *1600-1620 EE, nx, mx request px, good (Dorbert)
 11720NF INDONESIA JAVA RRI Jakarta; *2200-0100* Indon HS, Sundays runs through till
 evening, 0800*, ex 11770, (Padula-Australia 1-26)
 11720 CHINA RP; unlisted relay of the CC HS at 0200 on 1-8, //11695, 11945, & 15450,
 good (Willis-Australia); CC foreign service *0100-0400 f/o, often strong at s/on,
 (B. Davis)
 11725 CUBA RHC; 0100 EE, nx, cmntry, fair (Ebrecht-Morocco)
 11730 MALAGASY REP RN; *2000-2120* EE to Europe, DX Jukebox, His & Hers Show, Dutch
 by Radio, Holland calling Africa, nx, cmntry, US pops, good (Ravenhorst, Dorbert,
 Hauser, Moritz 2-6, Slaff 12-31)
 11740 USA OAS Bethany; #2345 EE/SS/PP/FF, Argentine mx, many IDs for Voice of OAS, EE
 2345-0000, poor (Buccola 1-14)
 11740 SEYCHELLES IS FEBA; EE ID at 1659 into Farei till 0730, lang and Afro type vocals
 to 1800 EE ID, amnt of freq change to 11860, but not hrld, poor to fair signal but
 readable modulation, Vatican under, (Krause 1-18, Cress 1-12)
 11745 GREENLAND Grönlands Radio; *1500-1515 f/o, short IS, OM in Danish, fade and
 flutter with QRM from HCJB and RHC, poor, (Schwarz 1-1). Good catch OM.
 11765 AUSTRALIA RA; 0700 EE to Europe, IDs, nx, f/o 0720, 50 kw, (Slaff 1-1)
 11765 BRAZIL R Tupi; 0007, 0228 PP, ads, Brazilian pops, tlks, fast fade and het,
 (Earhart 1-23, Miller 2-6)
 11765 USSR RPP; *1330-1350 EE, MW w/nx, ID, good (Dorbert)
 11770 MEXICO R Mex; ID at 0144, serious orch mx, strong signal, (Cress 2-5)
 11770 NIGERIA VoN; 2000 EE, You and Your Health, mx, fair (Moritz 2-7). Sched says EE
 to 1930 per WRTW. 2-1)
 11775 USA WINB; 2115 EE, rel px ended and ID and freq given, then mx, excellent (Buccola)/
 11780 NEW ZEALAND RNZ; 0520-0752 EE, IS, ID, Anthem, 0530 nx, //9540 (under VoA) Arthur
 Cushen's DX World, mx, features, fair-excellent (Hauser 2-5, Dorbert, Moritz 1-29,
 Talbot)
 11780 BRAZIL R Nac; 2100-2230 EE, various programs of nx, cmntry and lots of music
 programs including Carnival mx, and Brazilian pops, PP at 2210 one day, good
 reception reported, back from 9605, (McCarthy 1-25, Slaff 1-12, Zilmer 2-4,
 Lineback 1-18, Krause 1-31, Buccola 1-26, Schwarz 1-8, Padula-Australia 1-11,
 Moritz 2-5, Earhart 1-23). Most popular station of the month.
 11785 BRAZIL R Guiba; 0115-0200 PP, light mx, fair-good (Gaffin 1-26)
 11790NF NETH ANT TWK; 0315 SS, mostly talk by man, fair (Earhart 1-23)
 11790 INDONESIA JAVA RRI Jakarta; *2330-0130*, some days, weekends, runs later with
 0200* v/to 0300*, Indon in overseas service starts at 0100 and is not a relay
 of the HS, but a separate px, (Padula-Australia 1-26)
 11790 VATICAN VR; 1503 IS, 1505 Sitar mx opening EE to India and SEA, then into Tamil;
 fair (Hauser 1-20)
 11795 GERMANY (FR) DW; 1749 GG, ID, IS, and off, fair (Miller 1-19)
 11800 CANARY IS RNE; 2246-2314 SS, poor, QRM, (McCarthy 1-20)

- 11805NF POLAND R Warsaw; 1600-1605, nx by YW, poor (Mayer 1-26). If this is the right freq, should have been QRMing Sahara.
- 11805 SPANISH SAHARA R Sahara; 1555-1608 SS, pops till 1600 then local ID and RNE nx relay, local ID at 1605 and more nx till sed by WYFR carrier at 1608, fair, (Mayer 1-26). Good catch OM.
- 11810 INDIA AIR; 1404-1430, 1445, EE, nx, play previews, local mx, ID, poor-good, (Schwarz 1-18, Jones 2-8)
- 11810 CHILE VoChile; 1232-1254 EE, nx, cmtry, poor (Zilmer 1-25)
- 11810 ALGERIA RTVA; 2250-2305 AA, North African songs, nx at 2300, fair (Earhart 1-7)
- 11815 NETH ANT TWR; 0030 EE mx, 0056-0130 EE "Radio Today", good (Ebrecht-Morocco, Ravenhorst)
- 11820 ASCENSION IS BBC; 2030-2058 EE, to West Africa, mx, spts, (Marshall 1-22)
- 11825NF HOLLAND RN Lopik; 1025 EE, blocked at 1030 by BBC, (Willis-Australia 1-6)
- 11830 ETHIOPIA ETLF; 1845-1850, 1945 EE/Hausa to W Africa, EE ID, mx, tlk, 2012-2015 EE rel tlk, ID, good (Earhart 1-23, Magne 1-25, Lineback 1-25)
- 11830 CLAND, believe the Voice of Malayan Revolution; 0200 Unashed CC px, to past 0330, // RP outlet on 15415, not //15789, (Willis-Australia 1-8)
- 11835 HAITI R 4VEH; 1210-1220 EE, bulletin board, mx, rel tlk, 1730 rel px, request mx, 2230-2330 SS, 2245-0145 SS, rel px, mx, fair-good (Cole, Dorbert, Marshall 1-16, Buccola 1-26)
- 11835 SUDAN R Omdurman; 1815-1830 AA, tlk by man, children singing, //9505 poor, fair (Earhart 1-28)
- 11840WF ETHIOPIA ETLF; 1948-2010 EE, nx, "You and your Health", good (Krause 1-24). Note program of same name heard another day on 11770 and noted as Nigeria, neather ETLF or VoN listed here. It would be best to indicate if ID heard or not.
- 11840t AUSTRALIA RA; 1130 EE nx, mx, excellent (Fields)
- 11850a GERMANY (FR) DW; 1715? EE to Africa, mx, tlk, poor (Loburger 2-9)
- 11850 UNID; 1300* AA, not Zambia, African songs, 0400-0500 all music and jammed by unusual jammer, //9525 which appears again 1400-1700, believe mid-east location, (Willis-Australia 1-12, 1-24)
- 11855NF PHILIPPINES FEBC; 0100* EE, replaces 15385, *2300, (Willis-Australia 1-7)
- 11855NF ROMANIA RB; *1430 in possible Farsi under VoA-Kavala, fair (Willis-Australia 1-9)
- 11864-5v ZAIRE R Lubumbashi; 2336 tlk by OM, fair (J. Davis 1-26, 1-27)
- 11865NF AUSTRIA ORF; 0745 GG, recent NF, good (Willis-Australia 1-11)
- 11865NF CANADA RCI; 1802-1817 EE to Africa, //Sac 15325 faint, 9445 strong, //Malta 9620 faint, and 6110 not heard, this freq fair with QRN, (Earhart 2-4)
- 11867 BRAZIL RC Pernambuco; 0219 PP, excited tlk by OM, (not futebol), fair (Miller 1-29)
- 11880 MEXICO R Seis; 1444 SS, Musica Tropical, good (Jones 2-8)
- 11880 TURKEY VoT; 1845-1900 TT, TT songs by man with strings. *2200-2215 EE, 2305-2325 EE, nx, cmtry, classical, TT, and US type mx, poor-good (Krause 1-25, Dorbert, Earhart 1-24, Moritz 1-12)
- 11885 AUSTRALIA RA Brisbane; 0756 EE 10kw to P/NG, pops, still on at 0945, (Hauser 2-10)
- 11885NF ETHIOPIA ETLF; *0600 FF, new service, (Willis-Australia 1-23)
- 11900WNF NEW ZEALAND RNZ; 1900-2130 EE to Australia, ex 11780, should revert to normal time on 1 March and this px would be 2000-2230, (Padula-Australia 1-11)
- 11900 SOUTH AFRICA R RSA; 2230-2300 South African Panorama in EE, excellent (Moritz 1-22); 2100 EE to NA, good (Ebrecht-Morocco)
- 11900WF? TANZANIA RT; 1555 AA, tlk, mixed Afro/AA mx, excellent (Fields). Not listed, NF?
- 11905 USSR unknown far east site; *0130-0330* RR, px 1, Siberian version, Irkoutsk heard under this one w/EE px 1, (B. Davis)
- 11905 THAILAND RT; EE to 1145 then seemingly Malay, mix w/Taipei, sched seems variable, unusual to hear here (Willis-Australia 1-11)
- 11915 ECUADOR HCJB; 0230-0300 DX party line, 0030 EE radio play, 0315 EE rel mx & tlk, fair-excellent (Loburger 2-12, Moritz 1-27, Ebrecht-Morocco)
- 11920 IVORY COAST RTVI 1900, 1923-2000 EE, YW ancr, Mood music for Saturday night, ID as external service of Radio Ivory Coast, strong, nx in EE at 1925, QRM from RNE, VoA, (Zilmer 2-8, Ravenhorst, Gaffin 1-27); 2108-2215 FF Jazz songs from the 1940's, good (McCarthy 1-15) 1-23)
- 11925 BRAZIL R Bandeirantes; 0250-0305 PP, tlk, Brazilian pops, poor but clear (Earhart/S KOREA RK; 1208-1217 EE, tlk on Korean History by OM, Asian flute mx, possible ID covered by RTTY at 1217, poor (Schwartz 1-22)
- 11930 CUBA RHC; 0210 EE VoVietnam px, (Loburger 2-11 fair)
- 11930 SWEDEN RS; 1600 EE, px to mid-east, poor (Zilmer 2-4)
- 11935 FRANCE RFI; *1700-1757* EE to Africa, over VoA, //11705, 15120, 15165, 15300, 17755, fair (Magne 1-26) //9630, 11940, 5955, 7285, 21620 and 9520 also listed, this freq directed to Angola-Zaire region.
- 11935 PORTUGAL RF; 0223-0230 tlks, mx, good (Moritz 1-1). Lang?
- 11940 FRANCE RFI; 1745-1803 EE Paris Calling Africa, Tlks, mx, //11935, fair (Earhart 1-24). This freq directed to Mauritania-Mali region.
- 11940 KUWAIT RK; 1330-1355 AA, heard well after Romania s/off, sports event?, Koran recitation, hets building up made listening poor (Earhart 1-8)
- 11945 CHINA RF; 0005 EE, YW ancr, nx, excellent (Buccola 1-27)
- 11950 BRAZIL R Min da Educacao; 0100-0130 PP, ID, piano solo, fair (Gaffin 1-27)
- 11950 LIBERIA ELWA; 2000 Lang/EE, Afro rel mx, tlk in lang, 2015 ID into EE Back to 31 Bible px, fair to poor (Miller 1-25, Cole 1-16)

- 11950 USSR RP&P; 1308-1320 PP?, tlk by woman, RR ballads by man, fair (Earhart 1-26)
 11955 MALAGASY REP RN; *1830 AA, Koran reading, good (J. Davis 1-11). NF?
 11965 RWANDA DW Kigali; 1756 GG, IS, ID, QRM from possible Angola, fair (Miller 1-19)
 11965 BRAZIL R Record; 0235 PP, no ID but mentions of Sao Paulo, poor (Earhart 1-23)
 11970 ECUADOR HCJB; 0200-0228* SS, mixed w/RA Shepparton, strange reception since little
 heard this band this time here, replaced 11965, (Padula-Australia 1-19)
 11990 CZECHOSLOVAKIA RP; 1552-1625 EE px to Africa and Asia, mx, tlk, gave EE sched,
 poor, (Loburger 2-9)
 12000 USSR RM; Mayak px 1735-1800 then foreign service from 1800, poor (Magne 2-2)
 12005 EGYPT R Cairo; 1135 AA, mx, W, good (Magne)
 12005 CLAND VoNUFK; *2358 Thai to 0300*, (Padula 1-25)
 12012h COSTA RICA R Reloj; 2152-2200 SS live sports, 0747 SS romantic mx, 2x6006, better
 than fund, fair to good (Mayer 1-26, Hauser 2-4)
 12035 N VIETNAM VoV; here consistently ex 15012, monitored 2130 KK, 2200 KK, 2300 CC
 2330 Thai, 0000 Malay, 0030 Indon, 0100 EE, 0200 SS, 0230 FF, 0300 SS, 0330 CC,
 0400 CC, 0430 FF, //10041, also noted *0900 KK, (Padula-Australia 1-25, 1-26).
 Note SS transmissions.
 12055 CHINA RP; 0930-1030 Malay, new time ex 1000-1030, also EE to NA 0100-0200,
 (Padula-Australia 1-25, 1-26)
 12070 USSR Vladivostok; 0800, ID as Govorit Leningrad on a Saturday, but is from
 Vlad, //12050, 12020 all well hrld, px for RR seamen, (Padula-Australia 1-25)
 12112 CHINA RP; 2350-2355* Indon svce, recent NF, (Padula-Australia 1-26)
 12120 CHINA RP HS px 1; f/i 0730 strong to 0800*, runs regularly later than 0800* noted
 by BBC MS, (Padula-Australia 1-25)
 12142 CLAND R España Ind; 0635 SS political px, via long path (Padula-Australia 1-25)
 13700 CHINA China Press Agency; 1205 emphatic CC by YW, few anmts, (Willis-Australia
 1-25, 1-26)
 13845 CHINA China Press Agency; 1209 // 13700, good level, tlks, (Willis-Australia 1-28)
 14860 USSR RM HS; on this odd frequency at 0930 in RR, (Willis-Australia 1-22)
 15060 CHINA RP; YL with tlk in CC at 2352, change to EE at 0000, nx, ID, (Brookwell)
 15084 IRAN R Tehran; 1838-1852 Farsi, dramatic play, excellent (Ravenhorst)
 15100 ISRAEL IBA; 2015 EE tlk, poor (Fields)
 15105 ASCENSION IS BBC; 1644-1731 EE, sports, fair (McCarthy 1-25)
 15105 JAPAN NHK; 0008 EE nx, weak (Fields)
 15110 MEXICO R Seis; 1740, 1830-1845, 2130, 2200, 2300-0020 SS, mx, IDs, ads, strong,
 one ID sounded like R Pen (phonetically), (Fields, Slaff, Earhart 1-24, Moritz
 2-4, Brookwell, Dorbert)
 15115 ECUADOR HCJB; 1900 EE rel px, excellent (Fields)
 15120 UNID; 1135-1155* AA tlks, AA mx, off w/mx, NF?, nothing listed looks likely,
 poor (Magne)
 15120 NIGERIA VoN; *1800EE, ID, poor under RTI, (Mayer 1-18)
 15120 FRANCE RFI; 1700-1755 EE, Paris Calling Africa, mx, nx, cmntry about Africa and
 other items, //15300 E, 11705 F, this one good, but some QRM reported, (Zilmer,
 Cole, McCarthy, Lineback 1-25); 1625-1900 FF, mx, play, excellent (Ravenhorst)
 This one beamed to extreme east Africa 1600-1900.
 15123 CHINA RP; 0400-0455 RR, drifting to avoid jammer, //15263, 15367, 15411, (Willis-
 Australia 1-25)
 15130 USSR RM; 1635 RR, man tlking, female ancr 1644, off 1645, fair (Earhart 1-18)
 15135NF EGYPT R Cairo; *1200 AA for Sudan, //1915, (Willis-Australia 1-30)
 15140 SWITZERLAND SBC; 1315 EE, nx, Dateline Tuesday, very good (Moritz 2-4)
 15145 BRAZIL R Jornal do Comercio; 1930 PF, rapid tlk, fair (Zilmer 1-26)
 15145NF SAUDI ARABIA BSKSA; 0800 under R Liberty, sched *0700-0900* in AA, (Willis-A 1-31)
 15150 CHILE Lvd Chile; 2232 EE, nx, cmntry, 0505 SS address, fair (Zilmer 2-1,
 Willis-Australia 1-10)
 15155 SOUTH AFRICA R RSA; IS to *2000 FF, nx, good (Talbot); *0928 ex 0828 in
 Afrikaans under RTI, Sunday only svce, (Willis-Australia 2-2)
 15165 DENMARK RD; 1557 EE/Danish s/on w/organ, excellent (Moritz 2-5)
 15165NF FRANCE RFI; 1713 EE, African mx, Paris Calling Africa, fair (Zilmer 2-4)
 Directed to west Africa 1700-1800, Sierra Leone, Liberia.
 15170 TAHITI R Tahiti; 1615-1700 FF, FF and island mx, 1900-1907 EE nx, wx, into FF
 by 1910, fair to good and 73° with calm seas (dream on fellows) (Ravenhorst,
 Magne, Fields, Cress)
 15180 ENGLAND BBC; 1415-1425 AA, AA mx, songs, fair (Earhart 1-8)
 15185 FINLAND RF; 1415-1430 EE, DX special, (McCarthy 12-31)
 15185 MALAGASY REP RN; 1805-1820* DD, tlks, some mx, not on sched, fair (Earhart 1-24)
 15195a JAPAN NHK; 0000 EE nx, Week in Review, poor-fair (Loburger 2-10)
 15230 AUSTRALIA VLH15; 0140 EE, nx, poor (Fields)
 15240NF ISRAEL IBA; *1400 possible Yiddish, (Willis-Australia 1-10) Fields)
 15245 ZAIRE Kinshasa LvdZaire; 1847, 1945 FF, tlk, mx, nx, fair-excellent (Ravenhorst,
 15270 JAPAN NHK; *2345 EE, nx, cmntry, IDs, good-fair (Ravenhorst, Buccola 2-4)
 15275NF GERMANY (FR) DM; *1400 AA, replaces 15245, (Willis-Australia 1-10)
 15280NF NEW ZEALAND RN2; 0200-0500 EE, replaces 17770, //15110, (Willis-Australia 1-31)
 15280 USA VoA and KGEI continue to conflict here at 2130-2200, VoA RR, KGEI in SS,
 (Hauser 1-20)
 15285NF CUBA RHC; 2245 SS px into EE, excellent (Fields)

- 15290 ARGENTINA R El Mundo; 0000 SS, tlk, mx, poor (Zilmer 2-6)
- 15295 FRANCE RFI; 1715-1730 EE, Paris calling Africa, tlks on Rhodesia, W ancr, good (Dorbert, Ebrecht-Morocco). This freq not listed, var. from 15300??
- 15300 FRANCE RFI; *1700-1757* EE, Paris Calling Africa, good (Jones 1-18, Cress 1-25, Magne 1-25, Zilmer 2-2). Listed to Cameroun-Zaire.
- 15305 ECUADOR HCJB; 1942 EE, DX Partyline, excellent (Ravenhorst)
- 15305 SWITZERLAND SBC; 1538 EE, DX px, LP echo, (Hauser 1-11)
- 15320 ETHIOPIA ETLF; 1543 Malagasy, tlks, rel mx, s/off 1555 EE, fair (Miller 1-25)
- 15340 PORTUGAL RP; 1714 PP, ON tlks, IS, freqs given, Accordion mx, plays, good (Miller)
- 15350 NETH ANT TWR; 0207 SS, rel tlk by OM, fair (Miller 1-29)
- 15350 LUXEMBOURG R Lux.: 1718 FF, local pops, kids shout and clap, nx at 1730, good (Miller 1-25)
- 15370 CUBA RHC; 2034 SS, testing or on wrong freq, sudden off, nx, (Hauser 2-7)
- 15390 VENEZUELA R Nac; 2200-2255 EE, then into SS, nx at 2230, SS mx, features, poor to strong (Ravenhorst, Loberger 2-7, Zilmer 1-27)
- 15415NF CHINA RF; unlisted HS in CC here //11830, 0155-0235, drifts to 15420, (Willis-Australia 1-6)
- 15415 HOLLAND RN; 1400 EE, nx, anced //6045 and test on 5955 (not hrld), fair (Zilmer 2-8)
- 15415 BRAZIL R C de Ribeirao Preto; 0000 PP, tlk, mx, electronic tones between records, fair (Zilmer 2-6)
- 15425 AUSTRALIA VLW15 Perth; 2230 EE, weather by OM, fair (J. Davis 1-25)
- 15425 GREECE EIRT; 1258 IS per WRTH, 1259 NA, 1300 6 pip TC, anmt in Greek, IS again and then nx of Cyprus, beamed to Spain and Portugal, over DW, fair (Hauser 2-8); *1300-1350* Greek, under DW, (Willis-Australia 1-10)
- 15425 SRI LANKA SLBC; 1500 EE, extended nx, poor (Moritz 2-5)
- 15435 CHINA RF; *0400-0455* CC, //15395, unsched (Willis-Australia 1-10)
- 15440 USA WYFR; 1710-1800 EE, rel px to no. Europe, (Marshall 1-26)
- 15440 PHILIPPINES FEBC; 0010 EE, EE/Mandarin lang lesson, poor (Zilmer 2-4)
- 15445 BRAZIL R Nac; 0015 PP, tlk, mx, some EE mx, fair (Zilmer 2-6)
- 15485v CLAND (ROMANIA) R España Ind; 1350 SS, jammers, poor (Magne 2-8)
- 15789 CLAND VoMalayan Revolution; 0200-0300+ CC, not // to 11830, seemed own px, perhaps was relaying Peking, (Willis-Australia 1-7)
- 16105 CHINA China Press Agency; 1150 CC, YW ancr, (Willis-Australia 1-22)
- 17387 INDIA AIR Delhi; *1000-1111* EE, wierd freq, but anced for many months, first time hrld here, (Willis-Australia 1-19)
- 17695 ENGLAND BBC; 1500 EE, African Theater, fair (Zilmer 1-26)
- 17710 SWEDEN RS; 1400 EE, nx, panorama, good (Moritz 2-4)
- 17720 TAIWAN VoFC; 0255-0329 EE, CC lang lesson, nx, CC folk mx, good (Krause 2-1)
- 17720 FRANCE RFI; 1700 EE Paris calling Africa, weak (Buccola 1-25). This freq listed as being off at 1700, to west Africa.
- 17725 EGYPT R Cairo; 1538, YW anmts in EE, SS, and Lang. tlk, poor (Brookwell)
- 17730 USA VoA (Greenville list); 2305 NF for "Servicio de Correspondales" in SS, ex 17740, (Hauser 2-3)
- 17730 MALAGASY REP RTM; 1545-1600* EE, cmntry, US mx, ID, NA, IS at 1600, excellent since France vacated, (no name)
- 17740 FRANCE RFI; 1550-1615 FF px to Africa, //17720, 17755NF, 17860NF, 15300, 15360, 15155, 15130, 1745, 11845, good (Magne 1-18). This one to Afars Issas.
- 17755NF FRANCE RFI; 1718 EE, Paris calling Africa w/African nx, fair (Zilmer 2-4)
This one to east Africa.
- 17774.5NF INDONESIA IRIAN JAYA RRI Jayapura; drifting from 17780, Indon mx, IDs at 0530, 0600 on 1-23 (Willis-Australia)
- 17775NF FRANCE RFI; *1515-1545* program "Cooperation Radiophonique", FF to Africa, //17720, M-Sa only, EE hrld at 1532-1537, good (Magne 1-18). This one to east Africa, but listed as Sunday only.
- 17775 AUSTRIA ORF; 1455* fair (Magne 1-19)
- 17780 SOUTH AFRICA R RSA; 0630 EE, tlk, mx, fair (//15220 excellent), (Fields)
- 17795 CHINA RF; 0955* Indon svce, additional freq, (Willis-Australia 1-6)
- 17795 NORWAY RN; 1400 EE, Norway this week, fair (Zilmer 1-26)
- ~~17810~~ PHILIPPINES FEBC; 0102 EE, ID, science px, fair (Meehan 2-1)
- 17820 AUSTRALIA RA; 0130 EE mx px, poor (Fields)
- ~~17830~~ ASCENSION IS VoA relay; 1145 SS, fair, only station on band at time, (Hauser 1-13)
- 17840 ASCENSION IS BBC; 1600 EE, nx, cmntry, fair (Talbot)
- 17845 UNID; 1625 lang, oriental singing and harange in lang by YW, poor (Brookwell 1-6)
- 17845 PAKISTAN R Pakistan; 1325-1335 Urdu, tlk by W, one musical number, poor (Earhart 1-26)
- 17860 FRANCE RFI; France Inter HS relay, ID at France Inter on MW, sports, tlks, in FF, fair (Magne 1-26). Time not given, France Inter type px sched this freq to Afars Issas 0700-1100.
- 17865NF ROMANIA RB; *1200-1225* EE to S Asia, ex 17840, (Willis-Australia 1-28)
- 17885 CUBA RHC; 2038 EE, Latin American Songs mx px to Europe, fair (Meehan 1-25)
- 17890NF USSR Radio Station Pacific Ocean (Vladivostok); //17705, 15375, 15390, 17815, *0700 RR, (Willis-Australia)
- 17890 UNID; 1800-1820 EE, EE lang lessons by YW&OM, poor (Miller 2-8)
- 21415 PORTUGAL RP; 1805-1830 EE, tlk px, excellent (Fields) Sure its not 21495
- 21445 MOROCCO VOA relay; 1800 EE px, (Fields). Is this PTP? (33)

- 21495 PORTUGAL RP; 1850 FF, tlks and choral folk mx by children, FF not on sched this time, fair (Earhart 2-5)
- 21535 SOUTH AFRICA R RSA; 1143 EE interview, 1325 pops, 1400-1408 EE nx, some mx, // 15220, often only station on band in early hours of the day, fading bad at times, fair to poor (Cress 2-3, Earhart 1-8, Hauser 1-13)
- 21545 GHANA RG; 1621 AA, YW tlk, fading is problem, poor (Brookwell)
- 21620 FRANCE RFI; 1605 FF, tlks, fair (Hauser 1-15). This to east central and south Africa.
- 21700 PORTUGAL RP; 1818-1850 PP, M&W tlk, occ mx, no ID, mentions of Portugal, classical mx, not //21495, fair (Earhart 2-5)

Many thanks and a tip-o-the-hat to the following reporters: Larry BROOKWELL, Chapala, Jal., Mexico, R4B; Gary BUCCOLA, Dixon IL, National NC105; J. COLE, Denver CO, SW4A; Hadley CRESS, Harrisonburg VA, R4C; Bill DAVIS, Laguna Niguel CA, homebrew; Jim DAVIS, Travis AFB CA, SX 99; Bryan K. DORBERT, Baltimore MD, S38D; Kenneth EARHART, Allentown PA, SX190; Jim EBRECHT, USN Morocco, Collins R 390, Zenith T/O; Tony FIELDS, Portage MI, DX150A; Adam GAFFIN, Brooklyn NY; Glenn HAUSER, Enid OK, HQ160; Jack R. JONES, Jackson MS, DX150A; Greg KRAUSE, Chief River Falls, WI, DX160; Jerry LINEBACK, St. Joseph IL, SPR-4; Victor C. Loberger, West Bend WI, Lafayette HV-600A; Dan McCARTHY, Terre Haute IN, DX160; Larry MAGNE, Philadelphia PA, R4B; Mildred MARSHALL, Devil's Lake ND, SX122; Alan MAYER, Park Forest IL, SPR-4; Jim MEEHAN, Berkeley CA; A. A. MILLER, Jr., Youngstown OH, HRO500; John MORITZ, Jr., Youngstown OH, DX160; Be PADULA, Surrey Hills VI, Australia, Marconi CR100; Greg RAVENHORST, Clarks Grove MN, R4C; Karl SCHWARZ, Ft. Wayne IN, DX150B; Jerry SLAFF, Brooklyn NY, KTR-1665; Larry TALBOT, Monomonee Falls WI, SB 313; Michael WILLIS, Hampton VI, Australia, Trio 9R-590E; Robert ZILMER, Milwaukee WI, SPR-4.

A few notes are in order this month. In the credit list we include the model of receiver used. Some reporters give a long list of assorted receivers, others none. It would be helpful if reporters would list one receiver that they consider their primary receiver. Others might be listed if a significant number of reports were made using the second receiver. If I listed all the junk I have that can receive shortwave, it would take a whole line.

Many receiver notations are made in cryptic model numbers. This is confusing for novice DXers and for me too. I suggest that all receivers be listed by brand name as well as by model number. For example, Drake SPR-4; Realistic DX160, etc. Next month I will try listing brand names for all. Regarding portables, I suggest that most can be referred to simply as Panasonic portable, etc. The type of receiver is important in evaluating reception reports.

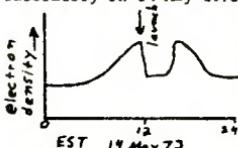
There will be a couple of people whose reports will not appear this month even though they mail their reports in time. The mail took 10 days in one case. We are sorry about that and the reports will appear next month. This problem cannot be helped (by us) but I have a few words for those who mail or the 14th and expect the mail to be here on the 15th. Rotsa ruck baby! The deadline date is the last date reports can arrive here. I start putting this thing together on the 16th. 95% of the letters mailed by the 13th will get here in time. Sometim's those mailed on the 13th will make it, but dont push your luck. We really do want your reports and they are much better when fresh.

Announcements are appearing on WWV regarding an evaluation of user interest in services offered by the NBS over WWV. They are studying various possibilities for cost cutting reductions (typical government response, millions for guns but something useful, forget it). I suggest we all write for this form and show them that their time and frequency standards and propagation information are used by many private citizens.

The following article appeared in SCIENCE recently. Mendillo, Hawkins and Klobuchar, A large-scale hole in the ionosphere caused by the launch of Skylab: Science V. 187, no. 4174, p. 343-345, 31 January 1975.

Observations of ionospheric electron density during the launch of the Skylab space laboratory on 14 May 1973 showed a temporary and dramatic drop in electron density in the vicinity of the launch path. The drop in electron density resulted from the vast amounts of exhaust from the second stage-booster rockets that were fueled with hydrogen burning in an oxygen environment. The exhaust was composed of 70% water vapor and 30% unused hydrogen. The volume of exhaust was 537 pounds per second per engine (5). Therefore, more than a ton per second total was eliminated into the F region of the ionosphere. The presence of the exhaust vapors in the F regions resulted in the recombination of free electrons with the additional hydrogen and water vapor to produce H and OH neutral molecules. This large scale pollution of the F regions would affect radio signals in the following manner. Since this happened during daylight, a HF signal, say a 25 meter signal from Africa, might be on a path such that the radiowave was reflecting from the ionosphere near the point where the rocket penetrated the ionosphere. The sudden drop in electron density might cause the signal to pass out into space without reflecting, resulting in a sudden and temporary shortwave fade out. The effects lasted about 3 hours and occurred in an area several hundred kilometers wide. Most rockets do not spend as long a time in the ionosphere as the Skylab launch did, so effects are more limited during most launches.

73 till next month. Jerry A. Lineback

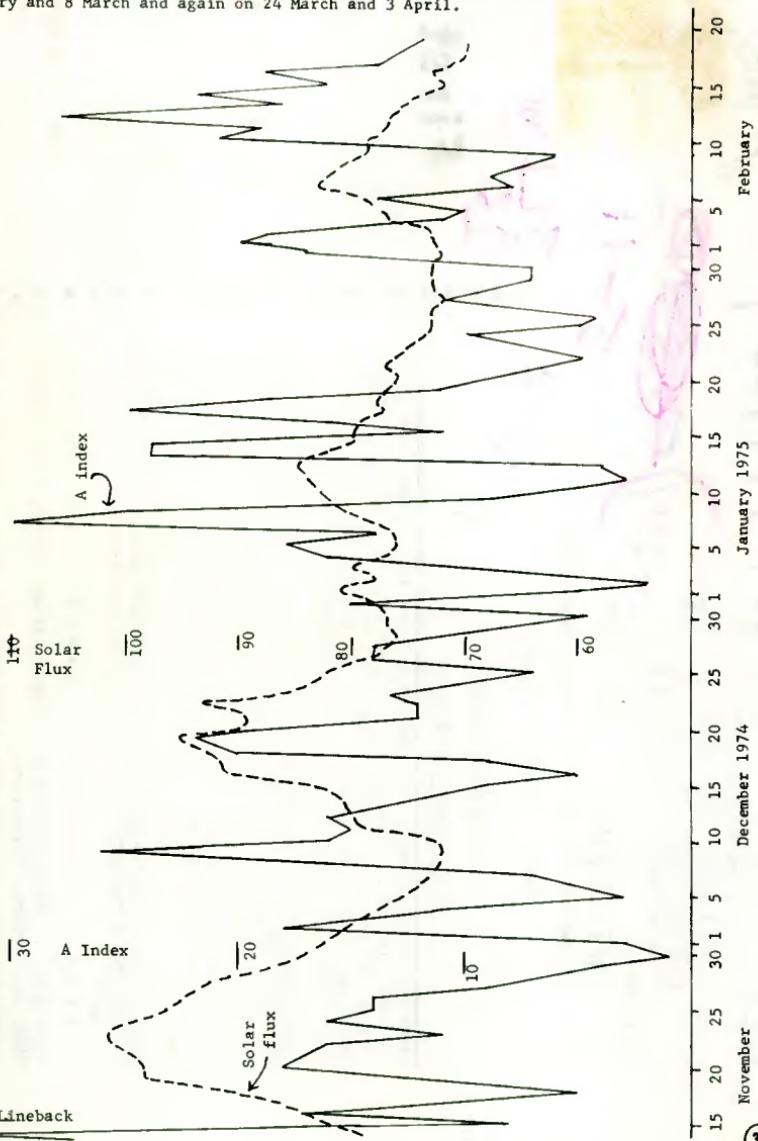


Executive editor Dan Ferguson should receive a large share of the credit for making FRENDEX a leading DX bulletin. I think all members of NASWA might show their appreciation by dropping Dan a card or letter thanking him for his efforts and for the personal sacrifices he has made in the last two years or so to keep FRENDEX up to the high standards we have come to expect.

The solar flux peak on 6 February was again a new low for the present cycle. It reached only 83 after a low of 72-73 attained during the period of 24 January to 2 February. Lows of 70 were reached on 18 and 19 February. The peak to peak period was 25 days and the next two peaks may be expected about 2 March and again about 29 March.

Geomagnetic activity was quiet between 20 and 30 January and 6 to 9 February. Moderate peaks in activity occurred on 1 February and again 10 to 16 February (peaking on 12 February). Moderately active geomagnetic conditions might be expected a few days before and a few days after the next peaks in solar activity. Predicted dates are 25 February and 8 March and again on 24 March and 3 April.

This graph shows the solar flux and geomagnetic activity (A index) for the past few months. Note the decline in solar activity.



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