

SPECIAL FEATURE

TIME PIPS AS AN AID TO ID'ING TP'S

by Nick Hall-Patch
with the able assistance of
Daisuke Kawaguchi and Mike Hardester

For those who missed the original time pips article in DX Monitor last September, a short introduction is in order. TP stations are often difficult to identify, even for an experienced DX'er. Noise, hets, and long fades often characterize reception of stations from the other side of the Pacific. Verbal ID's can be buried in the interference and there is the problem that oriental languages are unfamiliar to most North Americans. However, many TP's use time "pips" at the top of the hour which can be used as an aid to identifying these stations. Pips are one or more short (1/2 to 3 seconds) tones, which often cut through the crud when not much else in the way of audio is coming in. Following is a list of these different pips:

Legend

- very sharp, shorter than 1/2 second
- 1/2 second
- multiples of 1/2 second with - equalling 1/2 second. This equals 1 second.

Dots and dashes on the same line are the same musical pitch. A dash raised above the rest of the line is higher in pitch. If it's known how much higher, I will note its musical intonation. These are Art Peterson's classifications.

A. Constant pitch and duration

1. Japanese and Taiwanese commercial stations.
Daisuke Kawaguchi reports that almost all Japanese and Taiwanese commercial stations use a single pip on the hour. He says that few Japanese commercial stations use call-letter ID's on the hour, but have slogans or no ID at all. These pips are generally 2 to 3 seconds long and different stations seem to use different pitches. Of the three stations I've heard on tape, all let the pip fade away rather than finish the pip sharply as FEN below does.
2. Far Eastern Network (AFRTS Japan)

(key of Bb)
3. Radio New Zealand, ABC Australia, USSR Home Service (?)

(R. New Zealand's pips are in the key of B, ABC Australia noted in the key of B on 4JK-570 and 4RK-840, but 3LO-770 uses the key of G. USSR is supposed to use the key of B, but I've never heard it.)
4. Radio Malaysia
..... (key of B)
5. Radio Malaysia-Sarawak and R. Singapura
..... (key of C)

(note that R. Malaysia and R. Singapura would use their time pips on our half hour as their time zone is stepped off by 1/2 hour.)

B. Variable pitch, constant duration

1. North Korea (KCBS and Radio Pyongyang)
----- (F to E)
2. Vietnam (this is from 1968. May be obsolete.)
----- (D to F)
3. People's Republic of China (not on 1040)
----- (G to G an octave above)
(this series takes 11 seconds to complete)

C. Variable pitch and duration

1. KBS-South Korea, NHK 1&2-Japan, BCC-Taiwan
----- (A to A an octave above)

Unfortunately, three separate government services in East Asia use this same series of pips, and it is possible that one could hear the pips and not be certain which country on that frequency broadcast them. Both NHK 1&2 and KBS give call letters in English just before the pips. This might help if your reception is reasonably good.

2. MBC-South Korea
----- (B to B an octave above)

These pips have also been heard on the South Korean private outlet on 840 kHz which is not MBC.

These pips could be extremely useful in ID'ing a TP that would otherwise remain a complete mystery. If you have a musical ear and a reasonable tape recorder, you can tape the pips, then compare their pitch with notes on a well-tuned guitar or piano. The pitch you hear may not be exactly as indicated above, due to tape speed variations, oddities in the received signal, or plain inaccuracy on my part. For example, I believe R. New Zealand uses 500 or 1000 cycle tone in their pips, which is not exactly a B on a piano. However, the spacing and relative pitch of the pips might well be enough for an ID.

Some questions remain and I'd appreciate any help which can be offered. The pitch differences in pips between 3LO-770 and 4RK-840 may be due to them being in different divisions of the ABC network. 4RK is ABC3 while 3LO is ABC1. Can any DU members assist here? Also, has anyone heard Vietnam, and does it use the pips indicated here or any pips at all? Finally, has anyone heard the USSR Home Service use pips recently? I haven't, nor have I seen any mention in DXWW of them.

Last season was very good for TP's with loggings of Thailand and Malaysia and tentatives of Indonesia. If you're a newcomer to TP DX'ing, perhaps this article will help you log some really distant DX (even nearby TP's are a long way away). If you're an oldtimer, please let the rest of us know some ID'ing tricks you use for TP's, or point out errors or omissions in this article. Above all, report what you hear to DXWW, especially your mysteries. Anybody logged Rangoon yet??

TP TIME PIPS UPDATER 11/78

Although this has been a lousy season for TP's, for me at least, there are a couple of additions to the TP time pips list which appeared in DX Monitor of Sept. 3/77:

RRI Indonesia (heard on 5987 SW)

----- (these are B notes)

China (Heilongjiang provincial service; 615, 880 etc.)

----- (A to Ab; different pitch from 1st and 2nd program)

....and from Mike Hardester:

China (Fujian front/People's Liberation Army; 558, 612, 882, 890, 1450, 1470, & 2340)

----- (F to C; sequence is nearly 10 seconds long)

73, Nick Hall-Patch

TIME PIPS REVISITED - AGAIN

by Bruce Portzer (instead of Nick Hall-Patch)

I recently came across two books published by the Defense Mapping Agency: Radio Navigation Aids: Atlantic & Mediterranean Area, and Radio Navigation Aids: Pacific & Indian Oceans. Both books were published in mid-1978.

In addition to lists of radiobeacons, instructions on what to do during a nuclear war, and other fascinating information, the books have lists of stations carrying time signals. Most of the stations listed are of the WWV/CHU variety, but a few are medium wave broadcasting stations and networks.

The following is a summary of the information they listed for the BGB stations. I'm not sure how up-to-date it is, so treat it like you would any other unconfirmed listings. The books were published before the new frequency plan went into effect, so I corrected (?) the listings where appropriate. All times shown are GMT/UTC.

Argentina. LRA-870 has a time signal on the hour and half hour 1100-0400 and at 2330. Beginning 5 seconds before the hour the station has one pip every second, followed by a dash on the hour. The signal on the half hour is 2 pips at :29:58, 2 pips at :29:59, and a dash at :30. Between 2329:45 and 2329:55 there are 11 additional pips, one per second, in addition to the regular pips. The pips are broadcast one hour earlier during the summer.

Germany (West). A time signal is sent at 0400, 0500, 0600, 0700, 0800, 1100, 1300, 1500, 1600, 1800, 2100, 2300, & 2400 on 702, 972, 828, 1593 (and maybe a couple others) kHz. The signal consists of pips at :50, :55, :58, :59, & :60 seconds.

Great Britain. The BBC time signal normally consists of 5 pips 100 ms long, one per second, followed by a 500 ms pip at the top of the hour. However, in the event the powers that be declare a leap second should be inserted or removed, then the sequence marking 0000 on the first day of the appropriate month will have 7 or 5 pips, respectively. The time signal is broadcast on the BBC networks at the following times:
 Radio One (1053/1089 kHz): 0700, 0800(not Sat/Sun), 1400(Sat only), 1800(Sun only), 1930(Sat only), 2000(not Sun), 2200, one hour earlier with Summer Time in effect.
 Radio Two (693/909 kHz): 0700, 1000(Sat/Sun only), 1200(Sat/Sun only), 1400, 1800 (Sun only), 1930 (Sat only), 2000(not Sat/Sun), 2200.
 Radio Three (1215 kHz): 0700 (not Sat/Sun), 0800 (not Sun), 0900, 1000 (not Sun), 1100 (not Sat/Sun), 1200(not Sun), 1300, 1400(not Sat/Sun), 1500(not Sun), 1600(not Sat/Sun), 1700, 1800, 1900, 2100(Sun only), 2130(not Sat/Sun), 2300(not Sat/Sun).
 European Service: 0400, 0500, 0600, 0700, 1030, 1300, 1600, 1700, 1900, 1930, 2000, 2100, 2300.
 Hong Kong. RTHK-567 (and maybe 783) has six dots, one per second, the sixth marking the top of the hour. The pips are aired hourly 0000-1500, 1700, and 2100-2400.
 Italy. RAI has a time signal at 0400, 0700, 1200, & 1400 on 657 kHz; 1600, 1900, & 2200 on 900 kHz; and 1600, 1900, & 2200 on 846 kHz. The signal consists of a pip each second from :59:54 to :59:58, silence at :59:59, and a pip marking the top of the hour.
 Malaysia. Sarawak-846 has BBC-type pips at 0400, 1000, 1200, 1300, 1400, and 2200.
 Brunei. "BBC System" pips are aired on 891 & 1242 at 0200, 0445, 0930, 1200, 1400, & 2300; and on 972 & 1098 at 0245, 0430, 0830, 0915, 1045, 1315, and 2300.
 New Zealand. Pips are aired at 0030, 0200, 0400, 0600, 0630, 0700, 0900, 1300, 1400, 1300, 1500, 1600, 1700, 1800, 1900, 2000, 2100, 2258, 2259, & 2300 on what I suspect is the entire National Program network (only the YA & YZ stations are listed). There are 6 pips in the sequence. The first five are 150 ms long, the sixth is 300 ms long and marks the top of the hour.
 Poland. Warsaw-227 has a six pip sequence (one per second) at the top of the hour 0400-1000, 1200-1900, & 2300 weekdays, 0400-1000 & 1200-1500 Saturdays, and 0500, 1000, 1400, 1600, 1900, 2000, 2100, & 2300 Sundays. Other stations in Poland have the sequence at 0600, 1200, 1400, 1500, 1600, 1800, 2000, and 2300(except Sat) weekdays; and 0500, 1000, 1400, 1600, 1900, 2000, 2100, 2300 Sundays. The broadcasts are aired one hour earlier during the summer.
 Singapore. Radio Singapore has "BBC System" pips at 0030, 0430, 0930, and 1200 on 990 kHz; 0530, 0600, 0900, 1100, 1200, 1300, 1430, 2300, 2345 on 792 kHz; and 0600, 1130, 1330, 2330 on 630 kHz.

Obviously the above listings do not include all the time pip sequences known to man. Those broadcast by the Australian Broadcasting Commission, NHK, and other organizations were not included. However, the above information may prove useful to someone, somewhere, someday (maybe, hi).

May 19, 1979.

