

Their Time Is Your Time

A multi-million-dollar effort by many nations of the world converts your shortwave receiver into an electronic Timex!

Regularly as clockwork, the shortwave time stations split the hours into tiny fragments with their incessant electronic pulses. No music, no personalities, no entertainment, not even a newscast to break the monotony. Their programming is a bomb—a *time bomb*!

On the whole, their ticks, tones, and tech data are of interest mostly to scientific sorts who rely on their specialized services. Still, these "clock radios" offer some interesting DX to shortwave listeners.

Mention standard time stations, and most SWLs figure you're talking about the 46-year-old WWV, the National Bureau of Standards' operation at Ft. Collins, Colorado. For, truth to tell, WWV has been ticking away since 1923 (originally from Greenbelt, Maryland) on 2.5, 5, 10, 15, 20, and 25 MHz. And the more hip also know its Hawaiian counterpart, WWVH, at Puunene on Maui Island, which joined in on 5, 10, and 15 MHz in 1948. Still others are familiar with Canada's CHU, widely heard on 3.330, 7.335, and 14.670 MHz.

(turn page)

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But there are scores of other shortwave time stations operating around the globe. They are run by astronomical observatories, private and government labs, and military commands.

Little-Known DX. There are several reasons why many SWLs don't realize the DX potential of these services. Some share the standard frequencies with WWV and WWVH, which usually dominate the channels. Others have mini-skeds, transmitting just a few minutes each week. Then, too, some use off-beat wavelengths, which makes them tough to tune unless you know when and where to listen.

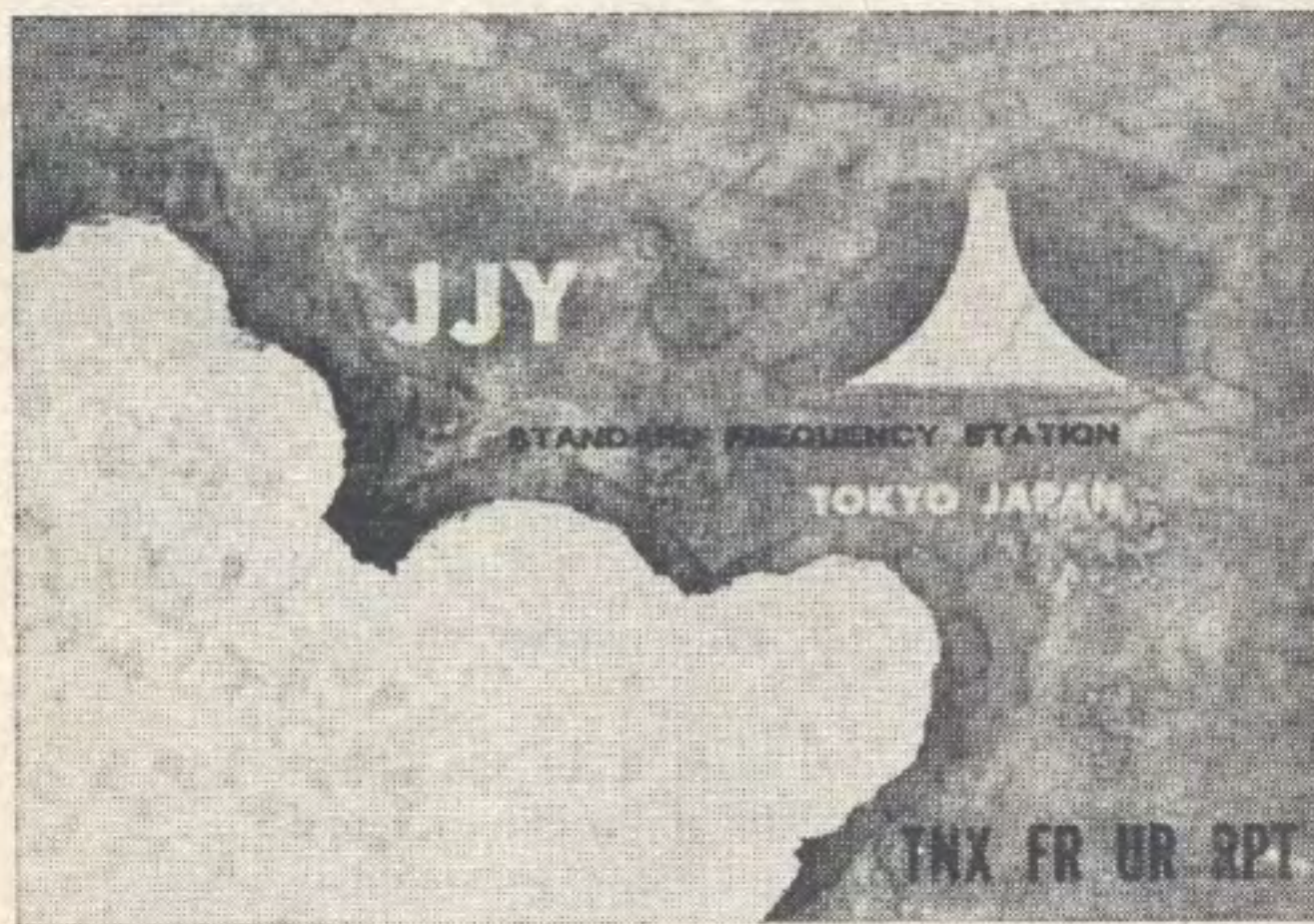
But when conditions are right, the foreign time-tickers can be logged during the WWV/WWVH silent periods—quarter to and quarter past the hour, respectively—or during brief pauses in their voice announcements. Sometimes, unexpectedly, alien tick-

ing can be heard right through the U.S. time stations.

Some identify only in International Morse Code, causing problems for SWLs who can't read CW. Way to get around this is to tape the signals, then play them back at half-speed to decipher the individual di-dah combinations.

Three On Five. For openers, stake out 5 MHz during the early evening hours, when WWV will no doubt be pounding in. However, during the voice announcement just before each quarter hour, you may hear a CW signal in the background, tapping out the call ZUO three times. This station, one of the most frequently heard overseas standard time services, belongs to South Africa's Republic Observatory in Johannesburg. Its transmitter at Olifantsfontein sometimes puts in a surprisingly good signal for just 4 kW.

A few hours later, between 0645 and 0700 GMT, the same 5-MHz frequency has been offering the electronic time signals of IBF, the Istituto Elettrotecnico Nazionale station at Turin, Italy. At times it manages



Putting together a QSL collection can be interesting when cards are grouped by topics—stamp collectors do this. A topical collection of time stations on six continents and Oceania set up in a nice display. For once it will be possible to show your friends the interesting world of shortwave listening. The chart at the top of the facing page tells you what will be needed in effort to get a complete set. Some of the nicer QSLs are shown on these pages — JJY-Japan, IBF-Italy, CHU-Canada, VNG-Australia. Get yours today!

ISTITUTO ELETTROTECNICO NAZIONALE "GALILEO FERRARIS" - TORINO

STAZIONE PER SEGNALI DI TEMPO E FREQUENZA CAMPIONE

IBF STANDARD TIME AND FREQUENCY STATION

Si conferma, ringraziando, il rapporto di ricezione
This is to confirm, with thanks, your reception report
di **IBF**
del January 21, 1963
on
alle 7 tempo universale.
at 7 universal time.

LA DIREZIONE
DIRECTION

CHU DOMINION OBSERVATORY
OTTAWA CANADA

THANK YOU FOR YOUR
REPORT OF THE DOMINION
OBSERVATORY'S VOICE
TIME SIGNAL ON:
3330 kc.
7335 kc. ✓
14670 kc.

STANDARD TIME STATIONS AROUND THE WORLD

Country	Station	Address	Frequency (MHz)	When to Tune (GMT)
ARGENTINA	LOL	Observatorio Naval, Buenos Aires, Avenida Costanera Sur 2099	5.000	0000-0100
AUSTRALIA	VNG	Australian Post Office, Postmaster General's Dept., 57 Bourke St., Melbourne 3000	7.515	1200-1300
BRAZIL	PPE	Observatorio Nacional, Rua Gen. Bruce 586, Rio de Janeiro, GB ZC-08	8.721	0025-0030
CANAL ZONE	NBA	U.S. Naval Observatory, Balboa	5.870	0155-0200
CEYLON	4PB	Colombo Radio, Colombo	8.742	1325-1330
CHILE	CCV	Instituto Hidrografico, Casilla 324, Valparaiso	8.205	0055-0100
CHINA	XSG	Zikawei Observatory, Shanghai	8.333	0855-0905
CZECHOSLOVAKIA	OMA	Standard Frequency Station, Budecska 6, Praha 2, Vinohrady	3.170	Evenings
ENGLAND	MSF	National Physical Lab, Teddington, Middlesex	5.000	Evenings
GERMANY, EAST	DIZ	German Geodetic Institute, DDR15, Potsdam	4.525	Evenings
GUAM	NPN	U.S. Naval Observatory	5.448.5	1155-1200
ITALY	IBF	Instituto Elettrotecnico Nazionale, Corso Massimo d'Azeglio 42, Torino	5.000	0645-0700
JAPAN	JJY	Radio Research Laboratories, Koganei, Tokyo	15.000	2200-2300
PERU	OBC	Comunicaciones Navales Radio, Callao	12.307	0055-0100
SOUTH AFRICA	ZUO	Republic Observatory, Johannesburg	5.000	0200-0400

to bull its way through the WWV transmissions, identifying both by CW and voice—in Italian, naturally.

Also noted on 5 MHz from time to time is LOL, the Argentine Naval Observatory station at Buenos Aires. It's identified by its thrice-repeated Morse call letters. Unfortunately, while the station's staff claims it wants reception reports, DXers complain that QSLs are few and far between.

Most of the stations, though, are good verifiers. One of the best—with a sharp QSL to boot—is Japan's JJY. Recently, this service of Radio Research Laboratories in Tokyo has been heard through WWV on 15 MHz during our late afternoons.

Off-Beat Frequencies. If you don't want to fight the QRM on the standard frequencies, switch to the time stations that use the far-out frequencies. For example, there's the German Geodetic Institute's DIZ in the East Berlin suburb of Potsdam. (Its 5-kW transmitter, on 4.525 MHz, is actually located in nearby Nauen.) No identifications here, but on this frequency it is unmistakable, particularly during the later afternoon and around midnight in the U.S.

Halfway around the world is VNG, the time station of the Australian post office in Melbourne. It identifies by voice—and in English, happily enough—on the hour only.

(Continued on page 109)





Just about everyone has heard the "tock, tock, tock" of WWV—the big U.S. time station. Tune 'em in and send a report today.

Their Time Is Your Time

Continued from page 51

As with most Down Under stations, listeners will find our early morning hours best. Generally, its 10-kW transmitters on 5.425 and 7.515 MHz are audible after 1200 GMT. Before that, your best bet is 12.005 MHz.

Our list shows a broad cross section of some of the standard time stations now on the air. Some are sure bets; others will really try your skill, patience, and—you guessed it—luck. With the time services you can never be sure what will pop up next. But whatever it is, you're in for a good time! ■