

## Broadcasting in Bermuda

by Charles A. Taylor

Bermuda has three mediumwave broadcast stations: ZFB1, 960 kHz; ZEM1, 1230 kHz; and ZEM2, 1340 kHz; all 1 kw. AFBI is owned by the Capital Broadcasting Company, and ZEM1 and 2 are owned by the Bermuda Broadcasting Company. Of the three, ZFB1 is the newest, opening on 16 August 1962 on 910 kHz, moving to 960 kHz in September of that year.

The ZFB AM/FM and TV studios are located on North Shore Road near the Barker's Hill Road/Palmetto Road roundabout. The TV and FM transmitter site is on the Ocean View Golf Course in Devonshire parish, about two-fifths of a mile from the ZFB studios, and linked to them via microwave. The ZFB1(AM) transmitter site is on Ireland Island (south), about 1/4 mile up Pender Road from Cut Bridge, and is linked to the ZFB studios by UHF-FM studio-transmitter link. The ZFB1 radiator tower is only 50 feet in height, and is limited to that by government esthetic regulations. Because of the short tower and limited ground system, the ZFB1 signal is noticeably weaker toward the east end (St. George's and the US Naval Air Station) than are the ZEM signals.

The ZEM AM/FM and TV studios are situated upon Fort Hill, Devonshire parish, near the Fort Hill Road and Middle Road junction, and only about a mile south of the ZFB AM/FM and TV. ZEM1 (1230 kHz) and ZEM2 (1340 kHz) are duplexed into a 100-foot tower atop Fort Hill, and adjacent to the studios. The FM and TV radiators are mounted on another, 150-foot, tower also atop Fort Hill. Due to the duplexing arrangement, ZEM1 and 2 generate mixing beats at 1120 and 1450 kHz. These are, however, well suppressed.

Bermuda is ethnically 3/5 a black nation, so a major portion of radio programming is directed to the blacks. Nearly all ZFB1's programming is black-oriented, as is over one-half of ZEM2's programming. Soul music from the U.S. is quite popular, naturally, but so is calypso and reggae since Bermuda — despite its geographic remoteness from the former British West Indies — is ethnically a Caribbean nation. Rock is the other top-seller, with ZEM-FM (89.1 MHz) devoting 100% of its 24-hour schedule to automated Drake rock. ZEM2's rock offering tends to rock of the 1950's and 60's. ZFB-FM is 100% easy listening, 24-hour automated format. U.S. Country/Western is broadcast most of Saturday afternoon on ZEM1.

Both ZEM-FM and ZFB-FM broadcast 100% stereo.

A Portuguese population of Azorean origin is numerically several thousand strong. For this ethnic group, ZEM1 offers 3 and 3/4 hours of Portuguese-language programming per week, and ZFB1 offers 2 1/2 hours per week. This Azorean dialect is quite at variance with standard Luso(Portugal) Portuguese.

Most radio announcers in Bermuda use a basically U.S./Canadian English, while others use a British English. ZEM1 appears to be the only local source of British English. The indigenous English appears to be closer to U.S./Canadian. The Black English is Caribbean, not North American. Note that the letter Z is "Zed" here.

Both ZEM1 and ZEM2 broadcast relays of BBC's Radio Newsreel, as well as the annual Cricket Tests from the BBC.

Bermuda has an exceedingly hilly terrain, which, combined with a thin soil cover over limestone and coral, makes Bermuda's effective ground conductivity one of the lowest in the world. Consequently, except in the immediate vicinity of station radiator towers, signal intensities are marginal and weak pockets of signal are numerous. At my current location, only 2-3/4 miles from ZEM1 and 2's radiator, I can null both stations easily with a Space Magnet. Despite this, all three stations radiate sufficient skywave to make reception in North America potentially easy. When, in the 1960s, ZEM1 operated on 1235 kHz, it was readily audible in Indianapolis, Indiana (and occasionally in California, bp). Likewise, ZFB1 was easily logged and taped, and subsequently verified, in November of 1967 during one of WERC's then-extant silent periods on 960 kHz.

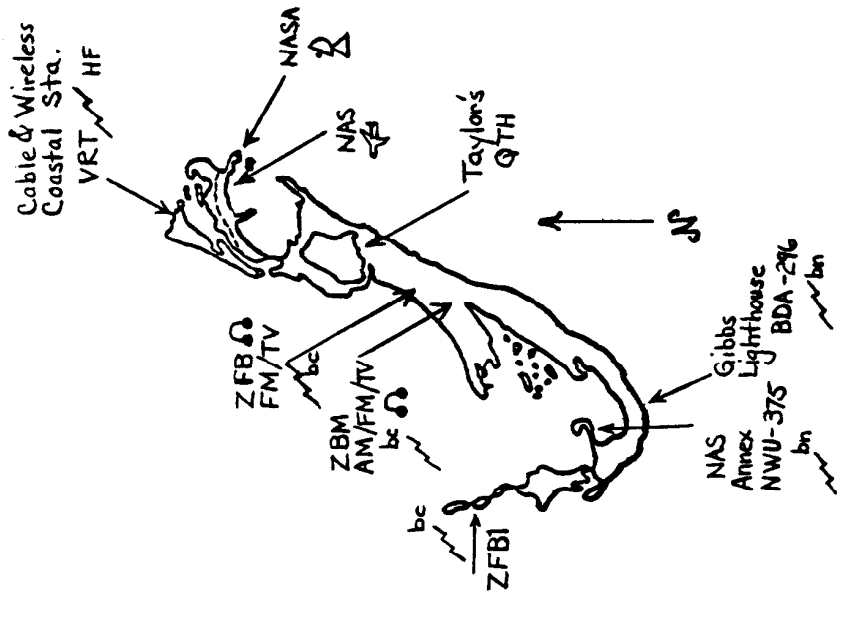
A pirate AFRTS station is reported to have operated in the middle 1970s from the U.S. Naval Air Station Annex, in Southampton parish. Official sources say that Bermuda's Telecommunications Department will not authorize an AFRTS station to be operated here.

At the present time ZFB1 (960) and ZEM2 (1340) are operating on a 24 hour schedule, both in parallel with their respective FMs. The Drake-rock format is heard on ZEM2 at this time, with the ID, "Serving the islands of Bermuda, this is ZEM-89 and ZEM2, 1340." It is fitting to note that ZEM-FM (89.1) has been heard twice by casual DXers back in Indianapolis.

ZFB1's all-night schedule is a somewhat sporadic thing, and in any event ZFB1 appears to be silent every Sunday morning. That an all-night schedule has any economic value at all is doubtful to be, Bermuda has nearly no nightlife. ABM1(1230) habitually leaves its carrier on after sign-off. Although not energy-conservative, this keeps the transmitter free of condensation induced by Bermuda's high relative humidity. This is likely a factor in consideration of ZEM2's and ZFB1's all-night schedule.

The three mediumwave stations maintain good technical and programming standards, better than those of most British-associated Caribbean country broadcasting services. ZEM1 and 2's second harmonics are inaudible here, and ZFB1's second harmonic is weak. None of the three have been observed to vary in frequency more than 5 Hz from exact center. Distortion of modulation is likewise quite low, usually inaudible.

Cable & Wireless  
Coastal Sta.



Legend:

transmitter

studio

bc - broadcast

bn - LF beacon

NAS-US Naval  
Air Sta.

NASA - NASA

Tracking Sta.

BERMUDA

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