

440-24

DXing The 1984 Solar Eclipse

Gerry Thomas

The solar eclipse of May 30, 1984 kind of snuck up on me. I didn't learn until the day before that Pensacola, Florida would experience 96% totality and that another eclipse wasn't due here until 2017. Furthermore, it wasn't until the morning of the eclipse that I definitely decided to sacrifice a half day of work (in the interest of DX science, of course) to see what the effects of an eclipse-weakened D-layer of the ionosphere would be on BCB DX. As a result of these 11th hour events, my hastily devised monitoring plan was, I'm sure, far from optimal. Nonetheless, it did result in some interesting listening and loggings.

Having never before DXed an eclipse, I didn't really know what to expect. I assumed that, since the darkness path was moving from west to east, stations from the west might begin appearing via skywave some time before the eclipse began in Pensacola. As it turned out, skywave reception wasn't definitely noticeable until the eclipse had begun in Pensacola and no unequivocal westerly bias was noted at that time. There did seem to be a slight easterly "opening" after the eclipse had peaked here and had begun receding, however. The strongest signals throughout the eclipse, though, seemed to originate from locations along the 100% totality path (i.e., New Orleans, southern Alabama, Atlanta); but this is a subjective observation.

About an hour before the scheduled beginning of the eclipse in Pensacola (9:45 a.m. CDT), I ran down the dial and selected frequencies to monitor which either had no discernable signals on them or which had weak to poor signal levels. It turned out that on that morning 40 channels fit the bill (a receiver with a multi-channel memory would have come in handy in this instance) but I will report on only a fraction of those. The monitoring equipment included an ICOM R-70 and a Yaesu FRG-7, each connected to its own loop and longwire antenna.

8:41 a.m. (one hour before eclipse onset)

The following frequencies showed no signs of signals or carriers and were checked throughout the eclipse:

530	834	1130
555	890	1210
650	1000	
655	1070	
700	1100	

Below are the channels monitored which had low level signals discernable one hour before eclipse onset:

580-WDBO (FL)	1090-UNID
630-UNID	1120-Cuba
750-WSB (GA)	1150-WGEA (AL)
820-Cuba	1530-WAAD (AL)
960-WERC (AL)	1560-WSDL (LA)

9:44 a.m. (eclipse onset)

There seemed (somewhat strangely) to be a slight increase in noise level at this time which continued throughout the eclipse. This may have been a purely local (i.e., line noise) phenomenon; I'm not certain.

About 15 minutes after onset, a few subaudible hets (SAHs) and carriers began to appear and overall signal levels seemed to

increase. Following are the loggings made during this time period (bold type indicates a change from the preceding monitoring window):

530--nil
 555--nil
 580--WDBO + 1 UNID
 630--now 2 UNIDs
 650--nil
 655--weak carrier
 700--weak carrier
 750--WSB still weak
 820--Cuba same
 834--Belize carrier appears
 890--nil
 960--WERC, no change
 1000--nil
 1070--WAPI (AL) appears
 1090--Cuba ID'd
 1100--weak carrier
 1130--fair carrier now
 1150--WGEA still here
 1210--nil
 1530--WAAO + 1 UNID
 1570--WSDL a little stronger

11:00 a.m. (peak of eclipse)

About 30 minutes before the peak of the eclipse, signal levels began increasing dramatically and SAHs were becoming more numerous as multipaths and new stations began interacting. At the peak, the band sounded like sunrise or sunset skip with much QRM and "beating" on most channels.

530--2 carriers SAH'ing
 555--carrier (Costa Rica)
 580--loud WDBO + 1 UNID
 630--KTIB (LA) and WJDB (AL) good
 650--WSM fair
 655--nil
 700--MLW weak
 750--WSB now good
 820--Cuba + weak WAP (TX)
 834--Belize with poor audio
 890--weak EE (WLS7)
 960--WRFC (GA) good w/WERC
 1000--WOPK (FL) + 1 UNID
 1070--WAPI loud
 1090--WSLG (LA) appears atop Cuba
 1100--WAME (OH) poor
 1130--KWCH (LA) good
 1150--WTMP (FL) good + 3 UNIDs
 1210--WGR (GA) fair/good
 1530--WAAO + 3 UNIDs
 1570--3 UNIDs

11:45 a.m. (end of eclipse)

530--2 carriers
 555--carrier gone
 580--WGAC (GA) atop WDBO
 630--KTIB and WJDB still here
 650--WSM remains poor
 655--nil
 700--carrier
 750--no WSB (?)
 820--WAP gone
 834--Belize intermittent
 890--nil
 960--1 weak UNID
 1000--nil
 1070--1 weak UNID

1090--Cuba back, no WSLG
 1100--nil
 1130--QRM madness
 1150--WTMP + 1 UNID
 1210--nil
 1530--WAAO + 1 UNID
 1570--garbled mess

12:15 p.m.

By 30 minutes after the end of the eclipse, conditions were rapidly returning to normal, although some ionospheric action was discernable. I had to get to work so I wasn't able to follow band conditions any longer but it had seemed that the variable critical to eclipse BCB DX was the stage of the eclipse at my location. By far, the most notable band conditions occurred during the peak of the eclipse overhead. Post-eclipse skip to the east definitely lingered much longer and was more noticeable than any pre-onset skip to the west (perhaps de-ionization takes longer than ionization (?)). At any rate, DXing the solar eclipse of 1984 was an enjoyable (though hectic) experience and I hope others of you were able to scan the dial during the phenomenon.
 73's--GT



Western DX Forum

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HCCA—Serving the Broadcast Band DX'er Since 1964

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HEADLINES - 07 AUG, 04 SEP

DENNIS KIBBE, 1017 W. MANHATTAN DR., PHOENIX, AZ 85282

What can you say about the Anniversary and April Fool's issues? What a great way to send the DX season out in style.

April 1st also found us moved into our first home. It really surprised Chris and I that only after a short time looking we found such a nice place. We will certainly enjoy the swimming pool during the hot summer months that are already with us.

All the news is not good though. I'm writing this from my hospital bed. After a car and motorcycle accident in which I broke my left leg in five places. (OUCH!!!)

Luckily, nothing else happened, but it will take six to eight months to learn to walk all over again. (Sorry to hear about the accident, Dennis. Hope all is better real soon. The average motorist is totally incompetent, come to think about it, the average motorist should have flunked their driver's license, hi-RtH.)

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Greetings and felicitations. For those of you whom may not have heard (or to put it more bluntly --- for those of you who didn't read your DXMs, hi). KPRD 1230 (K-Pardner) (which incidentally is listed in the new "J" log as KPRQ) and KZNS 94.3 Barstow (known collectively as the "Country Kouzins") have both gone to that great radio station in the sky. Apparently, they went \$\$\$-rupt. They went dark on Wednesday, 07 March at 6PM PLT. KPRD (previously known as KWTC) had been broadcasting for over 30 years. Eight days later, Thursday 15 March 6PM PLT, sister news-talk station KPRO 1440 Riverside (note similar calls) (and no, it's not listed as KPRD, hi) was also scheduled to go dark. I heard that KPRO was also going off, though I didn't know when until I read it in the paper on 16 March that it has gone dark the previous night. I tuned in 1440 at 9:30AM and noted that the station was still on (though for a moment I didn't know if perhaps I was listening to KUHL Santa Maria, which can also be heard here midday). I happened to tune in just as the news began and the announcer began by saying, "The biggest story of the day is that I'm here to report the biggest news story of the day -- which is that KPRO is still here." He went on to say that as their s/off approached the previous day, a live audience, as well as radio and TV reporters from all over SoCal were gathered around. The GM was to go on the air at 5:50PM to make final closing statements, then the theme from 2001 was to be played, followed by the SSB.

He said, "Now here's what actually happened. . ." and he replayed the en-