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SUNSET SKIP: A MIDWESTERN PERSPECTIVE

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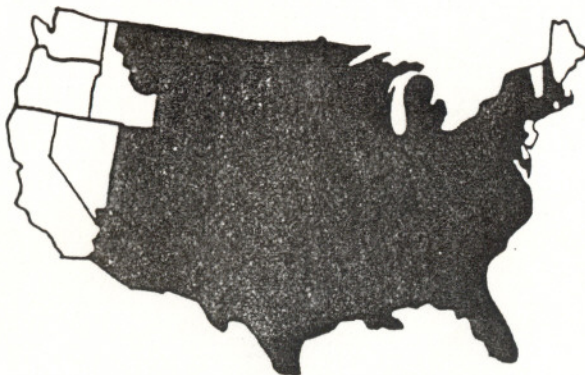
On the East Coast there are a variety of European and African signals to choose from. Stations from Asia and the Pacific can be heard in the West. Different areas of the country are best for different types of DXing. If you live in San Diego or Phoenix, you just aren't going to receive much of interest at sunset. Generally, the east is better than the west, the north better than the south (due to the angle of the sun during the fall and winter months when conditions are best).

Here in the Middle West, Trans-Atlantic signals are not plentiful and stations from the Pacific are very rare. But this is an excellent location for domestic DXing. We are far enough east to hear New England and the Maritimes, and far enough west to receive relatively low-powered stations from the West Coast. We're also in the right location to pick up large numbers of radio stations from such radio-active states as Texas (about 290 stations on ECB), North Carolina (220), Georgia (190), Pennsylvania (190), Tennessee (170), New York (160) and about a dozen other states with over 100 stations.

You've probably already read about how to pick up TAs or TPs, or how to receive signals at sunrise. This article is dedicated to sunset skip DXing (SSS), the mode of propagation that has been least affected by events of the past ten years (more NBF stations, etc.) and offers DXers in the right locations the opportunity to log many interesting stations. It's still possible to log a very good percentage of the stations that were heard at sunset during the fall of 1972, ten years ago. Anyone who has turned the radio on to DX Monday morning knows that this time period cannot make the same claim. (Assuming time periods made such claims.) Stations from 38 states have been heard in the Chicago area at sunset.

One of the main attractions, from a practical standpoint, of this mode of ECH DXing is that you won't have to get up at 4 a.m. to enjoy it. If you get home from school or work in time you can try it any day of the week. If you're on a more restricted schedule you should be able to DX at sunset on the weekend. Conditions change every day, so you won't get tired of DXing sunset for quite a while.

The beginner may enjoy satisfactory results with a good portable receiver and an up-to-date domestic log. The more experienced listener may prefer a communications receiver and loop, sunrise/sunset maps (essential for serious listening) and a good road atlas. Other aids include maps that show the location of stations, such as the Golden West frequency maps or the SRDS Spot Radio publications. If conditions are good to a particular area or even a single city, you may have only a few minutes to check for likely target stations before they are scheduled to sign-off.



The darkened portions of this map represent the 38 states that have been heard during the sunset period in Chicago.

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Although it is possible to hear Canadian stations at sunset, the primary targets for the sunset skip DXer will be the 2000-odd stations in the United States that are licensed for daytime-only operation by the Federal Communications Commission.

The sunrise and sunset times change every day, but to avoid confusion the FCC assigns a single sunrise and sunset time for each month for every city with a radio station. This time is based on the sunrise and sunset times on the 15th of the month, and is rounded off to the nearest 15 minute increment. If the sun sets in a given city at 4:41 p.m. on the 15th of the month, then all daytime-only stations in that city must leave the air at 4:45 p.m. for the entire month.

The sunrise time is determined the same way, but many stations are allowed to sign-on at 4 a.m. local time (Fire Sunrise Authority) if their sunrise occurs after 4 a.m. At the present time, there is no such thing as a "Post Sunset Authority," but from a broadcaster's point of view, it would make as much sense--some daytime-only stations must leave the air as early as 4 p.m. local time in mid-winter.

Since the length of daylight changes almost daily, the sunset time is either getting earlier or later. This means a darkness path exists (on many days) between the station and listener before or after the 15th of the month. From July to December, the second half of the month offers the greatest amount of darkness, while the first half of all the months from January to June are usually better for twilight DXing.

Of course, the actual sunset time of the station will be a factor, but the longest period of darkness in November would be on the 30th, while February 1st would be the best day in that month. Conditions do vary day to day, however, and don't be surprised if there are "good" days during the "bad" half of the month (especially in mid-season) and vice-versa.

In addition to the daytime-only stations, most fulltime stations reduce their power and broadcast with a more restricted antenna pattern after sunset. These stations are generally easier to receive on their day facilities, and can be received just before the switch is made. You'll have to be alert enough to catch an identification a few minutes before the power/antenna change time (which is the same time a daytime station in the same city would sign-off) because the switch is typically made in the middle of a song.

Limited-time stations operate on clear channels and generally leave the air when sunset occurs at the "protected" station. WHEB in Portsmouth, New Hampshire leaves the air at Atlanta (WSB) sunset allowing it to be heard in Chicago under very good conditions. Many of these limited-time stations have been granted fulltime licenses and will operate with directional antennas at night rather than a special operating schedule.

Here's a list of stations heard at sunset on two regional frequencies:

910 kHz	1330 kHz
KLCN Blytheville, AR--Often hrd during the day and well before LSS	WNEA Scottsboro, AL--Regular during the season
KAMD Camden, AR--Fairly rare	WKHR Evansville, IN--Regular pest
KPCF Denver, CO--Occasional, but better at sunrise	WKWC Waterloo, IA--Regular SS & eves
WSUI Iowa City, IA--Occasionally at SS, also at sunrise	KFH Wichita, KS--Regular pest
WCKE Meridian, MS--Hrd at SS and eves	KVOL Lafayette, LA--Occasionally at SS
KEIM Roswell, NM--Hrd once during exc conditions to W. Texas/N.M.	WFTO Fulton, MS--Occasional at SS
KGLD Miami, OK--Regular at SS & eves	WNIX Greenville, MS--Fairly regular
WJCV Johnson City, TN--Hrd before local sunset, but better at sunrise	WDAL Meridian, MS--Regular during the season
WTCY Roanoke, VA--Hrd once well before local sunset	KUKU Willow Springs, MO--Rare at SS
WDCR Sturgeon Bay, WI--Regular days, occasional SS visitor	KMIL Cameron, TX--Fairly rare, hrd only when cx are good to Tex.
	KSWA Graham, TX--Rare even when cx are good to Texas
	KINE Kingsville, TX--Fairly regular when cx are right

The best time for sunset skip DXing is between the fall and spring equinoxes. The months of October, November and December are usually the best months, with the last week of September sometimes producing an unusual opening. After the first of the year, January and February are usually good, with decent conditions turning up occasionally during the first week of March or April. Although conditions are not as good during September and April, the different angle of the sun during these months may produce some interesting DX that is covered during the winter. Unlike sunrise, summer is usually a waste of time for sunset skip DXing. If you've only been DXing a short time, however, it may be possible to receive new stations within a few hundred miles that are difficult during the winter because of increased interference.

The term "sunset skip" can cover a period extending from up to an hour before local sunset (depending on your location) to two hours after sunset when conditions are quite good. Usually, the "normal" time for sunset DX will extend from just before local sunset to 45 minutes to an hour afterwards.

Openings to the east and southeast--before Chicago sunset--can extend from Pennsylvania south to Georgia and are generally limited to the November-December-January mid-season period. These can only be taken advantage of on a few frequencies because stations farther west and closer to the listener are still on the air.

The most common sunset opening is to the mid-south region of Alabama, Mississippi, Arkansas and West Tennessee. Stations from these states (and Louisiana and western Kentucky to a lesser extent) can be heard on many frequencies and may be audible even when conditions are not very good. Texas is in a class by itself when it comes to classifying sunset openings. It may be possible to hear four or five stations on a single channel as the sun moves west, over as many as four sign-off slots in that state.

Openings to the far west (Arizona, Colorado, and New Mexico) may occur fairly often during a good season, and some of these stations can be heard in New England under the right conditions. Check the Albuquerque, Phoenix and Colorado Springs stations on 1580, as these are good "indicator" stations.

A rare opening at sunset is one that reaches into the northwest from Chicago. DX-quality stations from Minnesota and the Dakotas are not heard very often at sunset. The cue for this type of opening is very good reception from the Superior-Duluth region.

The frequencies that are best for sunset skip DXing vary from city to city. The top of the band will be good almost everywhere, with 1560 possibly being the best frequency. The regional channels of 1590 and 1600 are also quite good. Keep an eye on the clear channels in the 1000-1220 range because there are a lot of new stations coming on the air here. Regional frequencies in the 1200-1500 range should be good in most locations. Conditions have to be well above average to produce interesting DX on the low end of the band.

Like sunrise, sunset can be affected by an aurora. Often, this means that all but the strongest signals will be inaudible. But an aurora coupled with good skip to the south and southwest can mean outstanding reception from many low-powered stations. Under these circumstances, many stations can be heard that are not logged even under the best non-auroral conditions. The best time for a good DX-producing aurora at sunset is in the November-December-January period. Auroras that occur in the fringes of the DX season tend to be unproductive.

It pays to keep track of what is being heard and reported in the DX club bulletins. In addition to making a list of stations received by other DXers in your immediate area, keep an eye out for stations received by other DXers farther away. These stations "get out" well and may be logged in your areas as well under the right conditions.

In your first few seasons of sunset skip DXing, you will be able to tune around the band and pick up new stations, but this will become increasingly difficult. You may want to compile a list of target stations by time or by frequency based on reception by others or what you think can be heard. You would be surprised at the effectiveness of such "target lists" and how many seemingly-impossible stations can be logged with persistence.

The appearance of many newly-licensed stations on some of the clear channels (like WEDX-1030 and KFNW-1200) will offer all DXers an opportunity for new stations--for a while. You had better log what's coming on the air now, though, because the next construction permit the FCC issues for that frequency may be just down the street from you!

Besides providing you with the opportunity to hear many new stations, sunset skip DXing can also give you an opportunity to hear many interesting small-town broadcasters with colorful programming. You'll hear live local ads, unrehearsed news, and maybe a quick remote just before the sign-off announcement.

That's something you won't hear on Larry King, Herb Jepko or Talknet...and you won't have to get up at 4 a.m. to hear it.

Here are sample target lists, by frequency and by time:

	Jan	Feb	Mar	Apr	May	Jun
1410 WQZX	2000	1845	1830	1900	1930	1945
WDZQ	1945	1800	1745	1815	1900	1930
1430 KWHZ	1945	1745	1745	1800	1830	1900
1460 WQQZ	1845	1815	1800	1830	1900	1915
1745--WRZX--710	1800--WSZX--690	1815--KXZQ--960				
WQZX-1540	WXQO--810	KJQZ-1080				
WQZX-1570	KFZX-1050	KQWZ-1250				
WQZX-1600	WQYZ-1370	KVKZ-1580				