

A Transatlantic DXers Guide to Sunrise & Sunset Times

by Mark Connally

The purpose of this article is to provide a handy reference to sunset and sunrise times relevant to the reception of Trans-Atlantic signals. Medium-wave TA paths are most likely to be viable when the entire path is in darkness; therefore, the sunset time on the western hemisphere end of the path and the sunrise time on the eastern hemisphere end set the approximate beginning and ending times, respectively, of TA DX reception. The actual times of fade-in & fade-out are determined by sunset at the most westerly ionospheric skip point and by sunrise at the most easterly ionospheric skip point. Because of this, reception may occur up to an hour before sunset on the western end and also up to an hour after sunrise on the eastern end. This effect is accentuated if the receiving site and transmitting site have salt water in the direction of propagation for the first 10 km. or so of the route. This article does not attempt to predict exact fade-in & fade-out times; such a project would require a complicated propagation study - daily changes due to ionospheric condition variation will occur.

These listings have been adapted for MW TA DX from a more general list published by SPEEDX, an SWL club. Times listed are GMT; they are for the middle of the month (the 15th).

TABLE 1: WESTERN HEMISPHERE SUNSET TIMES--(TA reception begins.)

LOCATION	APPROX. G. C.	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Natal, Brazil	35.1W 5.5S	2030	2026	2022	2018	2014	2011	2012	2015	2020	2023	2027	2030
Rio de J., "	42.7W 22.5S	2128	2113	2055	2035	2019	2010	2013	2027	2045	2105	2122	2132
St. John, NF.	52.7W 47.6N	1949	2032	2120	2213	2257	2323	2314	2236	2146	2055	2006	1939
Surinam	56.5W 3.8N	2140	2143	2145	2149	2151	2152	2152	2150	2147	2144	2141	2140
Barbados	59.8W 13.5N	2137	2146	2157	2208	2218	2223	2221	2213	2203	2151	2141	2136
Falkland Is.	61.0W 50.8S	2359	2310	2216	2117	2027	1957	2008	2051	2147	2245	2340	0011
Halifax, NS	63.6W 44.6N	2048	2122	2205	2252	2332	2355	2346	2318	2228	2142	2058	2034
Bermuda	65.8W 32.3N	2125	2149	2217	2247	2312	2326	2321	2300	2232	2202	2135	2120
Puerto Rico	66.2W 18.5N	2154	2207	2221	2238	2250	2258	2255	2244	2229	2214	2159	2152
Venezuela	67.0W 10.5N	2211	2218	2226	2235	2242	2246	2245	2239	2230	2222	2214	2210
Boston, MA	71.1W 42.4N	2120	2156	2235	2319	2355	0017	0009	2338	2257	2214	2134	2112
Montreal, QU	73.6W 45.5N	2120	2200	2244	2334	0014	0038	0029	2354	2309	2221	2136	2111
New York, NY	74.0W 40.7N	2137	2210	2247	2329	0003	0023	0016	2347	2308	2227	2150	2129
Washington, DC	77.0W 38.5N	2155	2226	2301	2340	0011	0030	0023	2356	2320	2242	2207	2148
Toronto, ON	79.4W 43.6N	2149	2227	2308	2354	0032	0055	0046	0014	2331	2246	2204	2141
Miami, FL	80.2W 25.5N	2239	2257	2317	2339	2357	0008	0004	2349	2328	2306	2246	2235

TABLE 1 (continued): WESTERN HEMISPHERE SUNSET TIMES

LOCATION	APPROX. G. C.	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Costa Rica	84.1W 10.0N	2320	2327	2335	2343	2350	2354	2352	2347	2339	2331	2323	2319
Atlanta, GA	84.2W 33.5N	2237	2302	2330	0002	0028	0043	0038	0016	2346	2315	2246	2231
Chicago, IL	87.6W 41.9N	2228	2303	2342	0025	0100	0121	0114	0043	0003	2321	2242	2220
Houston, TX	95.2W 29.5N	2329	2351	0015	0042	0104	0116	0112	0053	0028	0002	2338	2325
Denver, CO	105.0W 39.4N	2340	0013	0049	0129	0202	0222	0215	0146	0109	0030	2353	2333
Los Angeles, CA	118.3W 34.1N	0051	0117	0146	0219	0245	0301	0255	0233	0202	0131	0101	0046
Seattle, WA	122.2W 47.4N	0027	0110	0158	0251	0335	0401	0352	0314	0224	0133	0044	0017
San Fran., CA	122.4W 37.8N	0058	0128	0202	0239	0310	0326	0321	0255	0220	0144	0110	0052
Vancouver, BC	123.1W 49.2N	0024	0110	0201	0257	0344	0413	0402	0321	0229	0134	0042	0013
Anchorage, Alaska	149.8W 61.2N	0056	0220	0341	0510	0629	0725	0703	0550	0425	0258	0131	0034
Hawaii	157.7W 20.0N	0358	0411	0427	0445	0459	0507	0504	0452	0436	0419	0403	0355

TABLE 2: EASTERN HEMISPHERE SUNRISE TIMES - (TA reception ends)

LOCATION	APPROX. G. C.	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Wulumqi, China	87.6E 43.8N	0138	0101	0019	2333	2255	2232	2240	2313	2356	0041	0124	0147
Delhi, India	77.2E 28.7N	0141	0120	0057	0030	0009	2357	0001	0019	0044	0109	0133	0146
Iran	51.5E 35.7N	0340	0312	0241	0207	0139	0122	0128	0152	0224	0258	0329	0346
Saudi Arabia	46.4E 24.5N	0336	0319	0259	0237	0219	0209	0213	0228	0248	0310	0329	0340
Moscow, USSR	37.6E 55.8N	0551	0449	0344	0233	0132	0053	0107	0202	0309	0418	0526	0606
Kenya	36.8E 1.4S	0331	0332	0333	0334	0335	0335	0335	0334	0333	0332	0331	0331
Israel	35.2E 31.8N	0436	0412	0345	0315	0251	0237	0243	0303	0330	0400	0426	0441
Egypt	31.4E 30.3N	0448	0426	0400	0332	0309	0256	0301	0320	0346	0414	0439	0452
Turkey	30.7E 39.9N	0514	0442	0406	0325	0252	0233	0240	0308	0345	0425	0501	0521
South Africa	28.1E 26.6S	0322	0341	0402	0427	0446	0457	0453	0437	0414	0351	0329	0318
Romania	26.1E 44.4N	0546	0508	0425	0338	0259	0236	0244	0318	0402	0448	0531	0555
Athens, Greece	23.7E 38.0N	0537	0507	0433	0355	0325	0306	0313	0339	0414	0451	0525	0544

