

SFL to FT5ZM propagation, VOACAP simulations assuming a 3-el Yagi at 55 feet at this end and a 5/8ths-wavelength vertical on their end, with 500 watts Tx power.

Best bands and times for south Florida (in decreasing order of reliability); to FT5ZM:

20m	Short Path: 0200z-0400z
17m	Long Path: 1400z-1600z
15m	Short Path: 1200z-1300z
30m	Short Path: 2200z-0200z
17m	Short Path: 1100z-1400z (and 0300z-0500z in February)

FT5ZM propagation: best times to get a particular band.

In January:

10m	1200-1300z SP, peaking right at 12z (but don't hold your breath; only about 5% reliability)
12m	1200-1300z SP, peaking right at 12z at 40% reliability
15m	1130-1330z SP above 50% reliability, peaking right at 1200z at 70% reliability; 1400-1600z LP above 50%, peaking 1500z at 60%
17m	1400-1530z LP above 70%; 1030-1300z SP above 50% reliability, peaking 1030-1130z above 60%
20m	2300-0500z above 50% reliability, peaking 0200z SP at 80% (best overall band-time combo)
30m	2200-0200z above 50% reliability, peaking 2300-0100z above 60%
Low bands	Common darkness from 2259z-2356z on 26 January, moving to 2302z-0002z on 31 January.

In February:

10m	1200-1300z SP at 20% reliability
12m	1200-1300z SP at 50% reliability
15m	1200-1530z SP above 50% reliability; 1400-1600z LP above 50%, peaking 1500z at 60%
17m	1400z-1600z LP above 50%, peaking 1400-1430z LP above 70% (second-best band-time combo); 0300-0600z above 50%, peaking 0300-0500z SP above 60%; and 1100-1400z SP above 50%
20m	0030-0500z SP above 50%, peaking 0200-0400z SP at 70%; 2300-0500z SP above 50% reliability, peaking 0200z at 80%
30m	2330-0200z above 60% reliability
Low bands	Common darkness from 2303z-0003z on 1 February, moving to 2312z-0018z on 14 February.

The higher bands should be better, later in the DXpedition. Also, the period of common darkness will be longer later in the DXpedition, so the low bands should be better, too. I think this is one of those trans-equatorial cases when the optimum dates for communication are the equinoxes (March and September ~21).

Ed, N4II.