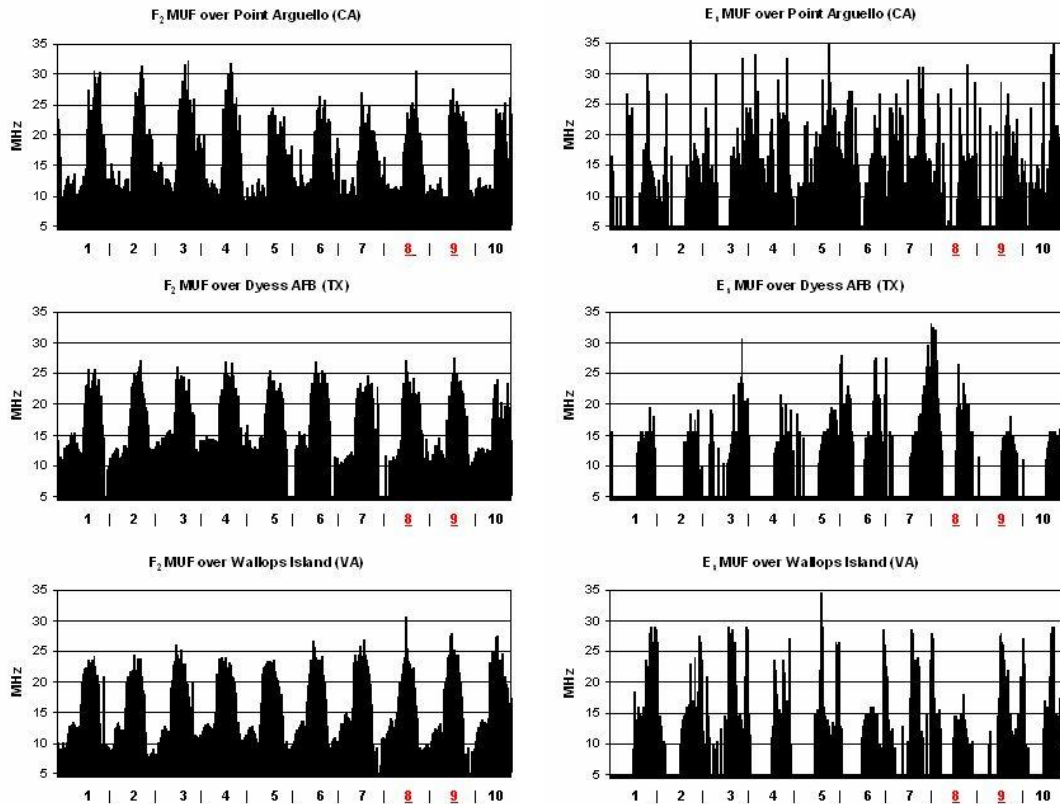


Tough Fun in the 2007 ARRL 10m Contest

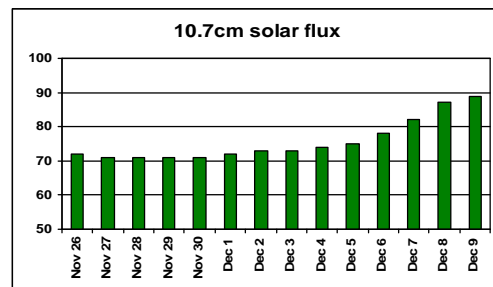
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Last December's ARRL 10m Contest offered some interesting propagation. Many US stations (especially those in the south) made a surprising number of QSOs although we're at solar minimum. K5TR with WM5R at the mic (SO PH HP in TX) claimed 1709 Qs/52 mults. K1TO (SO CW HP in FL) claimed 894 Qs/62 mults. Both had their best hours at the beginning of the contest (Friday evening) and again to a lesser extent Saturday evening. These great openings were likely due to sporadic E (E_s), as E_s can occur in the early evening hours in December. A look at ionosonde data from December 1-10 confirms this.



The three plots on the left are the F_2 MUF at west coast (top), southwest (middle), and east coast (bottom) ionosondes. The three plots on the right are the E_s MUF for the same ionosondes. As expected from the scores, the southwest had the best E_s opening at the beginning of the contest (contest dates are in red).

Did the fact that Sunspot Region 978 rotated into view on December 6 help F_2 propagation? The 10.7cm solar flux headed the right way (see the plot on the right). But nothing jumps out from the F_2 ionosonde data to suggest the extra EUV (extreme ultraviolet radiation) helped. Regardless, the F_2 MUF was high enough in all three areas to likely provide some F_2 scatter propagation during the afternoon hours.



In addition to E_s and F_2 scatter, ground wave played an important part for close-in QSOs. That's what's neat about the 10m Contest at solar minimum – you have to use many different propagation modes. I made 190 Qs (75% on CW) in 35 states, 2 VE provinces, and 5 DX stations. It was a lot of work, but it was fun.