

# *Dxers Unlimited weekend edition for Sunday 11 September 2016*

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By Arnie Coro  
Radio amateur CO2KK

Hola amigos radioaficionados all around the world now enjoying like I am , the much better propagation conditions prevailing thanks to the proximity of the autumn equinox...

Yes, as we approach the northern hemisphere autumn equinox, despite the fact that solar activity is low, nevertheless we are happy to see better conditions on all bands from 160 meters to 10 meters... I am Arnie Coro, radio amateur CO2KK your host here at the weekend edition of Dxers Unlimited, and now I will read part of a propagation report that says:

Compared to the last reporting week, the week from September 1 to 7 showed an average daily sunspot numbers that was down, but the solar flux increased, and geomagnetic indices were much more active.

Average daily sunspot number declined from 60.1 to 46.4, while average solar flux went from 87.9 to 95.1. Average planetary A index increased from 8 to 26.6, while average mid-latitude A index rose from 6.9 to 18.1. The daily planetary A index on September 1-4 was 36, 39, 40 and 28.

It looks like an echo of the solar wind which caused this activity is expected on September 28 through October 1, when the predicted planetary A index is 35, 38, 40 and 25.

Predicted solar flux will be 92, 90, and 85 on September 11-13, 80 on September 14-16, 108 on September 17-19, then 110, 105 and 110 on September 20-22, 112 on September 23-24, 108 on September 25, 105 on September 26-27, 100 on September 28, 95 on September 29 through October 1, 98 on October 2-4, 95 on October 5-6, 90 on October 7-8, 95 on October 9, 100 on October 10-11, 105 on October 12, and 108 on October 13-16. After October 16 flux values meander from 105 to 112.

So , here is my advice, enjoy the favorable HF propagation conditions for the next four weeks ....

Item two: I wrote an article for the Cuban National Amateur Radio Federation web site titled " Propagation Windows and how you can enjoy them " It centered on a short term propagation forecast that showed high probabilities of nice nation wide good 40 meters band conditions from about 4 pm to 8 pm local time.... The article was read by many Cuban radio amateurs and it sparked a lot of activity during the afternoon hours during the past several days. Two of the popular 40 meters band SSB round tables received a substantial increase of check ins.... indicating that the propagation prediction was quite accurate. Now I will be giving the finishing touches to another article about DX windows that will be available from Cuba and the rest of the Caribbean during the equinoctial season....

Item three: 10 meters band operators, please pay attention to what follows.... the 10 meters band beacons will tell you about band openings that go unnoticed because the lack of amateur radio activity ... In other words, the automatic beacons that are on the air 24 hours a day will tell you to start calling CQ DX even if the 10 meters band shows no stations on the air... The Trans Equatorial Propagation Season is now in full swing and this means that DX on 10 and 6 meters is possible.

Item four: Testing the new generation of LED lamps that are now made here in Cuba to replace the classic 20 or 18 Watts fluorescent lamps... The LED lamps use a switched mode power supply of the auto volt type to feed the five chains of LED lamps that are spaced uniformly along the length of the replacement lamp that fits into the same sockets as the fluorescent tubes... So far my measurements are very encouraging.... seems like very good engineering went into the design of the switched mode power supply that converts the AC line voltage from 85 to 250 volts into the 12 volts direct current used by the LED lamps. Each fluorescent lamp replaced by the new LED fixture saves about half of the electricity used by the classic lamp and produces more light output, plus the fact that the estimated lifetime of the LED assembly is many times longer than the fluorescent 20 or 18 Watts lamps... When installing the new LED lamps you simply remove the starter , and that's it, but if you wish you can also remove the ballast reactor too....

Stay tuned for more radio hobby related information coming from rainy La Habana , Cuba where a low pressure system moving very close North of us is producing much needed rain ...

Back in a few seconds amigos

Si, sure, this is your favorite radio hobby program, the one and only providing coverage of the ninety two different ways you and I enjoy playing with our radios... Here is now more information about a recent scientific research paper that demonstrated the world wide increase in radio frequency noise detected within the frequency range from one hundred kiloHertz to ten megaHertz... The authors compiled actual noise measurements made using time proven technologies and came to the conclusion that the AM medium wave broadcast band reception conditions all around the world have deteriorated significantly especially in urban areas, and even in rural areas the presence of so many electronic devices that use the switched mode power supplies have spoiled the reception of AM stations quite significantly. As a matter of

fact, the authors of the well documented research simulated under laboratory conditions how the presence of broadband noise makes reception of even the most powerful local AM stations quite difficult.

Another related study, shows that within the frequency range from 10 megaHertz to 100 megaHertz reception has also become more difficult in high density of population urban areas.... Low cost devices like cell phone battery chargers and similar gadgets are the culprits to blame for the ever increasing radio frequency broad band noise levels that are making reception of signals so difficult...

Several recent field intensity measurements I made in my residential neighborhood show that TV sets, computers and the cell phone chargers seem to be the main contributors to the extraordinary high noise levels that the spectrum analyzer show within the frequency range from 500 kiloHertz to one hundred and ten megaHertz.... Now let me add that turning off the AC power system by switching off all the circuit breakers that feed my home, showed only a very slight decrease in the noise levels, indicating that nearby homes are also an important source of the broadband noise that makes AM broadcast band and short wave reception so difficult .

Item five of the weekend edition of Dxers Unlimited... a recent announcement made by one of the world's radio receivers manufacturers seems to be the good news everyone has been waiting for... A new DRM capable receiver that has a multi mode decoder capable of AM, FM and DRM reception and that may be sold at a price equivalent to the present days portable high quality AM, FM and short wave receivers... This may be the breakthrough we are all waiting for, so that DRM and DRM plus and DRM 30 digital radio technologies can finally start to enter the worldwide market place. India seems to be the nation that is most advanced in the creation of a full coverage network of DRM high power transmitters, some of which are now on the air, although the number of radios that can pick up those programs is minimal to say the least.

Now amigos at the end of the show two remainders... we are still well into the thunderstorm season so please disconnect all your external antennas and AC power line cords when you finish listening or operating your ham radio stations...second reminder, it is always important to hear from you... so please take a little time and send me your comments about today's edition of DxersUnlimited to inforhc at enet dot cu, again inforhc at enet dot cu or via air mail to Arnie Coro Radio Havana Cuba, Havana ,Cuba

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<https://www.radiohc.cu/index.php/en/noticias/ciencias/105391-dxers-unlimited-weekend-edition-for-sunday-11-september-2016>



**Radio Habana Cuba**