



# A Comparison of Scintillations with Forecasts in the GNSS bands at Jicamarca, Peru

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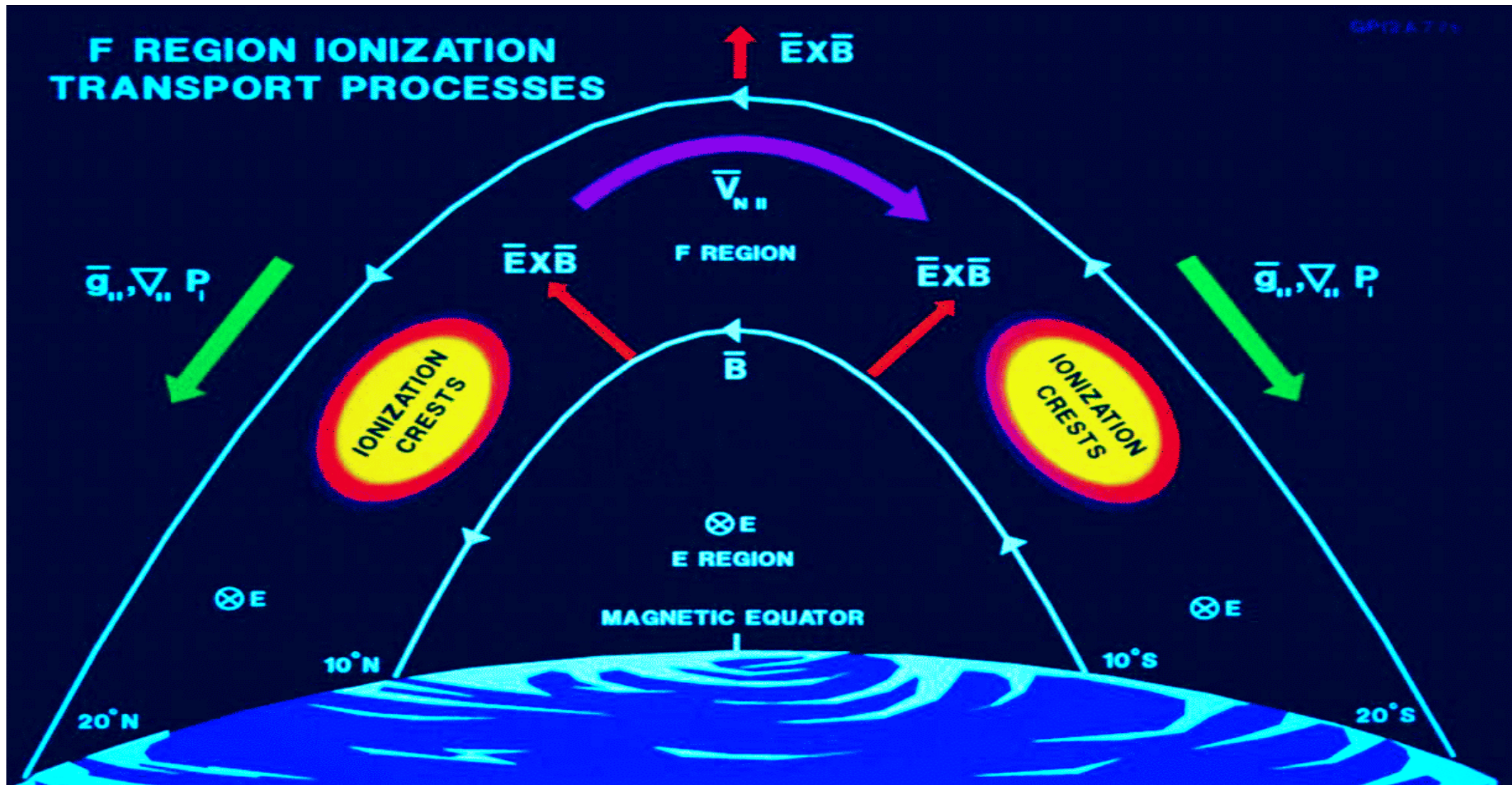
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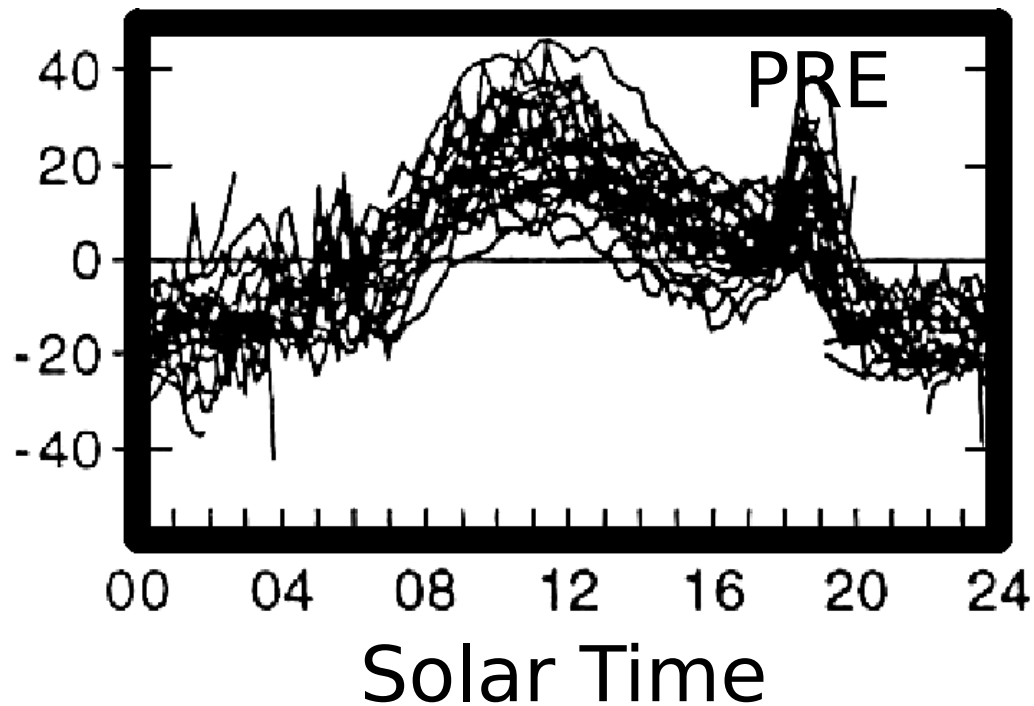
# IONOSPHERIC



# TRANSPORT



$E \times B$   
m/s



THRESHOLD:  
 $PRE > 20 \text{ m/s}$  🥲

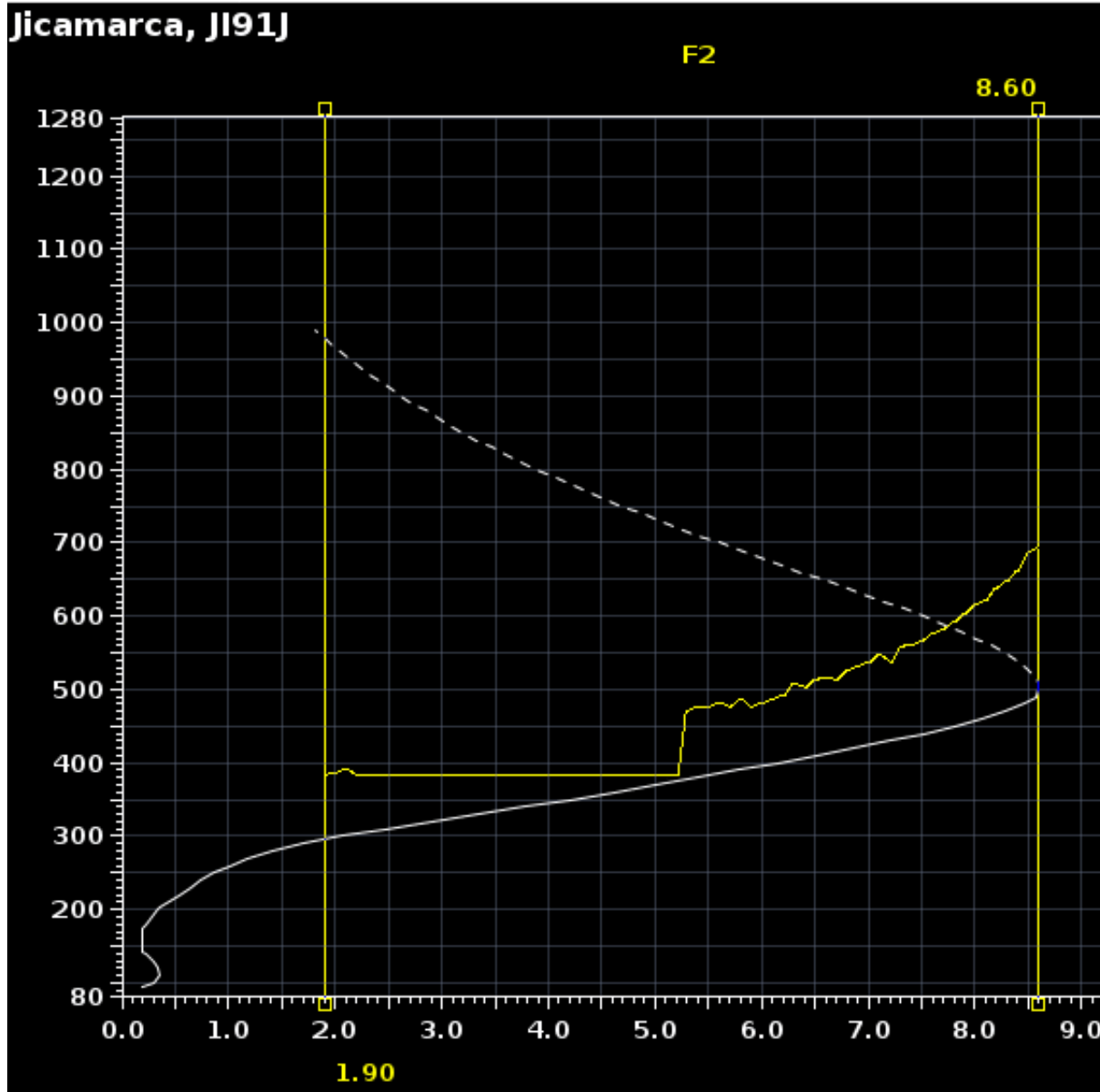
JRO 50 MHz array



E x B vs h' F

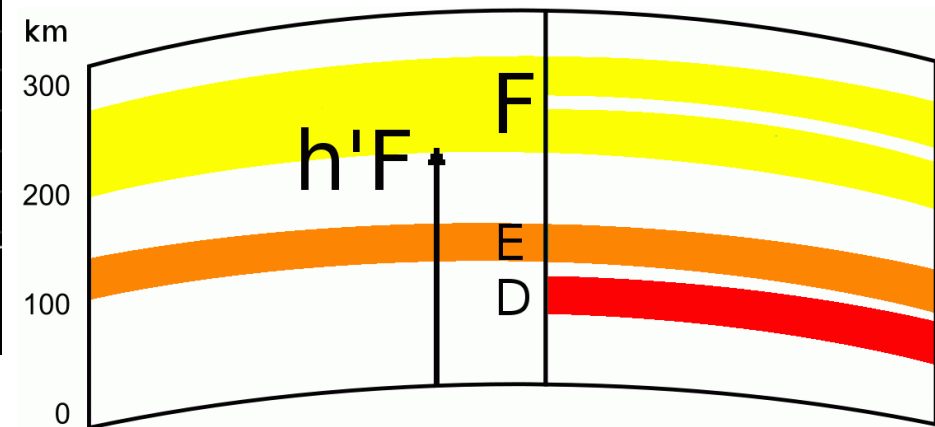


at 19:30 L.T.



IONOGRAM  
JICAMARCA  
2014-MAR-15  
19:30 (0030z)

$h'F = 382 \text{ km}$



# THRESHOLD



# OF h'F

$$\begin{aligned} h'F_{\text{thr}}(19:30\text{LT}) &= 1.08 F10.7 + 200.3 \\ &= 1.08 \times 157 + 200.3 = \underline{370} \end{aligned}$$

SCINTILLATION FORECAST:

measured h'F is HIGHER: LIKELY

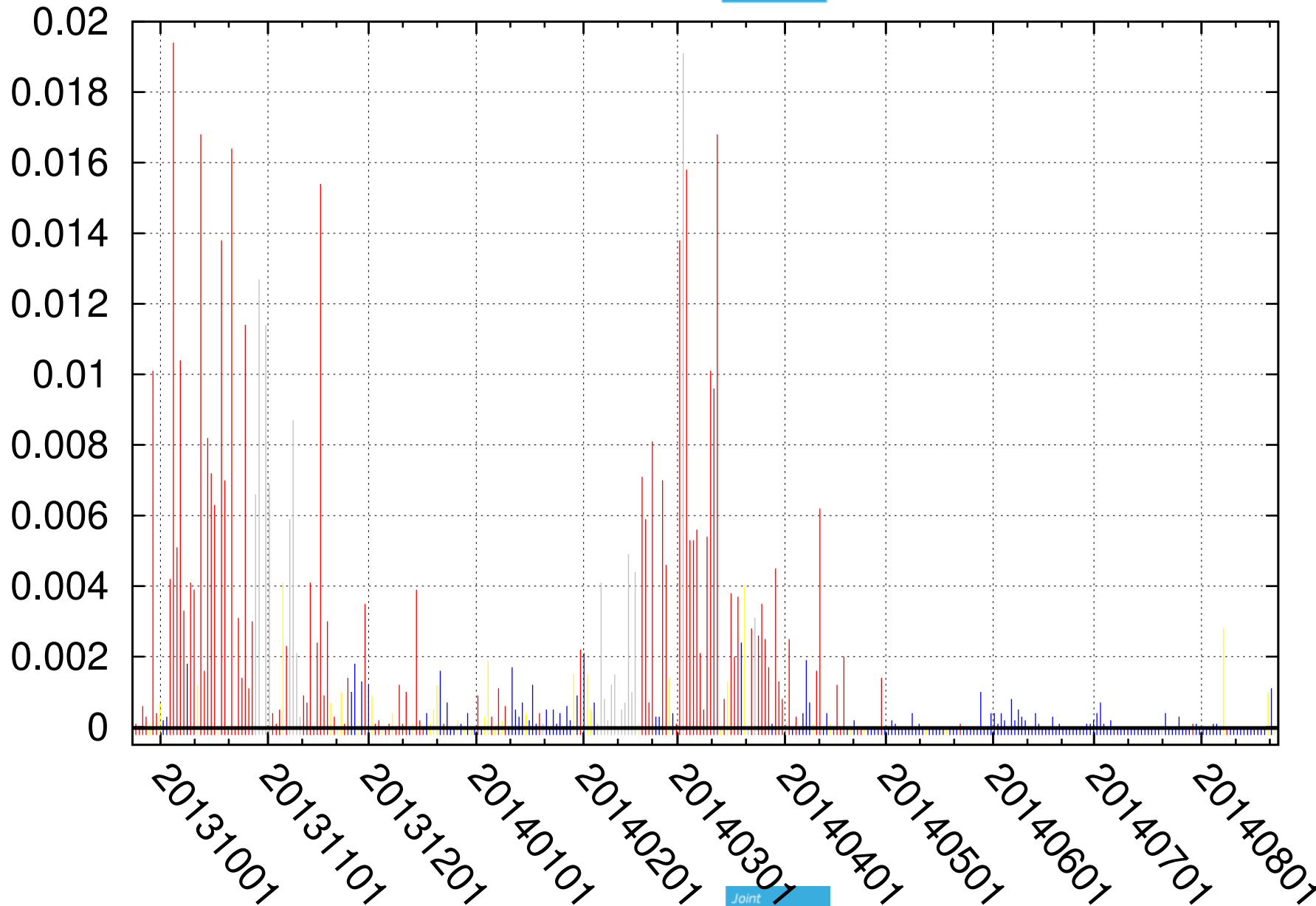
measured h'F is LOWER: UNLIKELY

meas. h'F is near threshold  
(+/- 10 km): POSSIBLE

# SCINTILLATION



# FORECAST



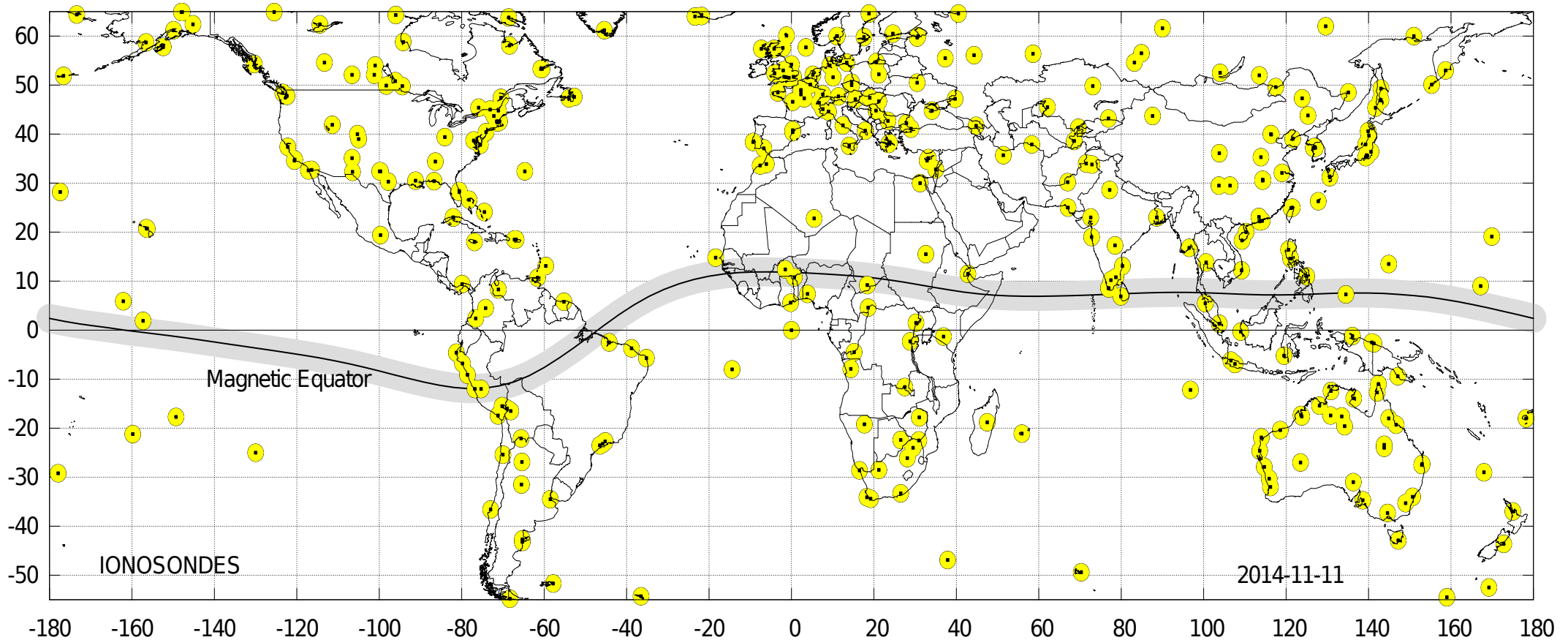
red:  
yes  
blue:  
no  
yellow:  
maybe  
grey:  
no  
data

# TRY OUT



# YOURSELF

<http://www.ngdc.noaa.gov/stp/iono/FIRST.html>



# THANKS FOR YOUR ATTENTION

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