

[Click here to open calculator](#)

107.09°W ECHOSTAR 17 →↓  
107.26°W ANIK F1 →↓  
107.30°W ANIK F1R →↓  
109.76°W DIRECTV 1R →↑[incl.00.66° Lat:↑00.66°S]  
109.98°W ECHOSTAR 11 →↓  
**110.10°W DIRECTV 5 (TEMPO 1) →↓**  
110.21°W ECHOSTAR 10 →↓  
111.01°W ANIK F2 →↑  
Satellite position: 111.09°W WILDBLUE-1 →↓

Satellite list generated from two line elements 10.09.2012 07:42 UTC  
**Mon Oct 08 2012 21:07:30 GMT+0200 (Central Europe Daylight Time)**

Theoretical coverage  
For selected satellite

Northern sun outage latitude  
@SatLon=SunLon

Southern sun outage latitude  
@SatLon=SunLon

Sun outage area/footprint based on  
antenna 3dB beamwidth

Boresight sun outage  
(maximum noise)

Boresight latitude belt  
for sun outage

Select an update frequency  
which do not overload the browser

C  ku  User Band(GHz) 12.5 Antenna Size(Meters) 0.46 Antenna Size(Feet) 1.51 Antenna Size(Inches) 18.11

Season  Spring  Fall Year(YYYY) 2012

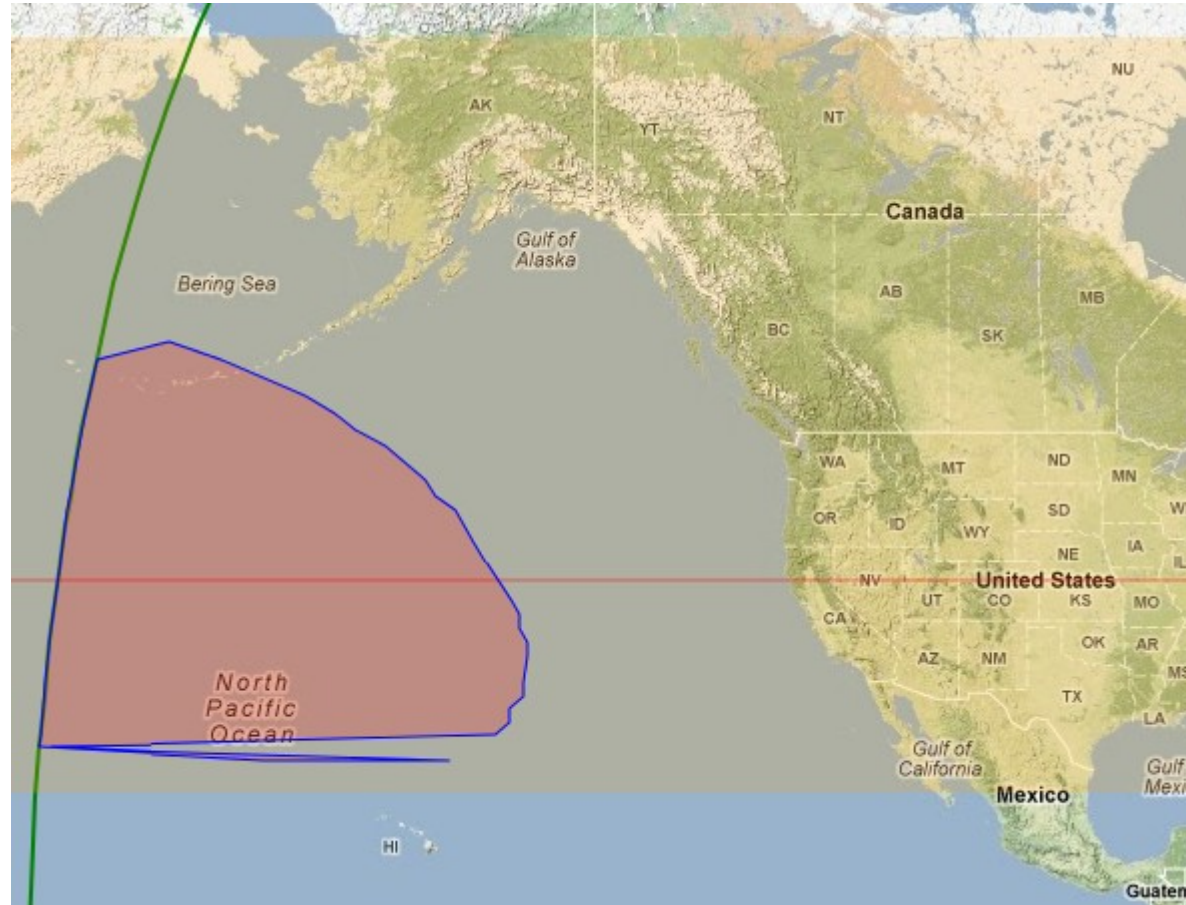
Date: 2012 10 8 21 7 30 Recalc

UTC+2h [Central Europe Daylight Time]

Autoupdate:

Calculate from manually  
set date&time

When the «sun outage footprint» area is red the sun outage status is calculated «brute force» with 1 degree latitude/longitude resolution. This sometimes gives strange results as shown here.



The red «sun outage footprint» will occur when there is no earth location which have sun in the boresight of the receiving antenna. I'm looking for a different method which is faster and more accurate (i.e. not bruteforce). Goal is to load outage status for several satellite positions.

When the «sun outage footprint» is having blue color it means that there exists a point on earth which have sun in boresight of the receiving antenna. This point is marked with a marker. Then «sun outage footprint» can be calculated fast with geometry for drawing satellite footprints.