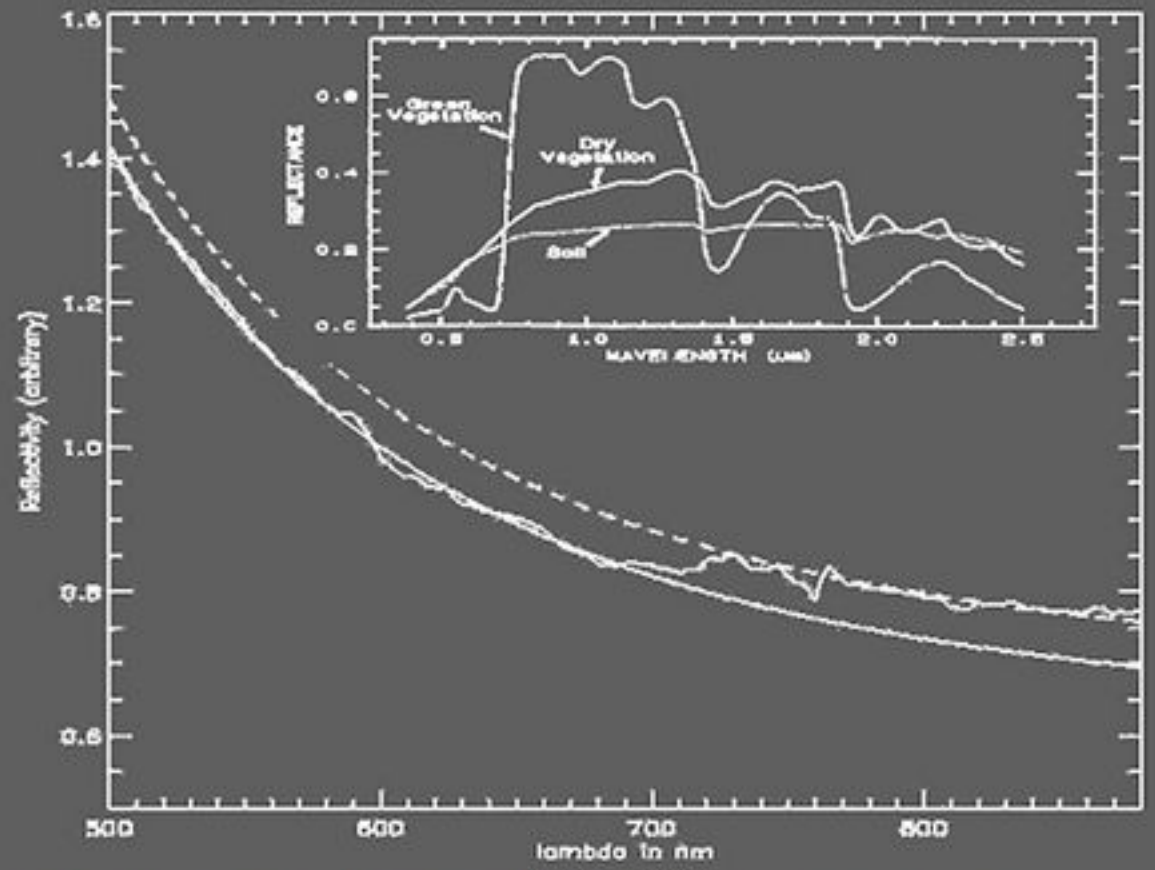
THE PROOF OF THE EXISTENCE OF OUR TECHNOLOGICAL CIVILIZATION BY " THE LISTENING " OF THE LUNAR EARTH-LIGHT.

IN 2002 THE SIGNATURE OF THE GROUND VEGETATION IN THE EARTH-LIGHT WAS DETECTED

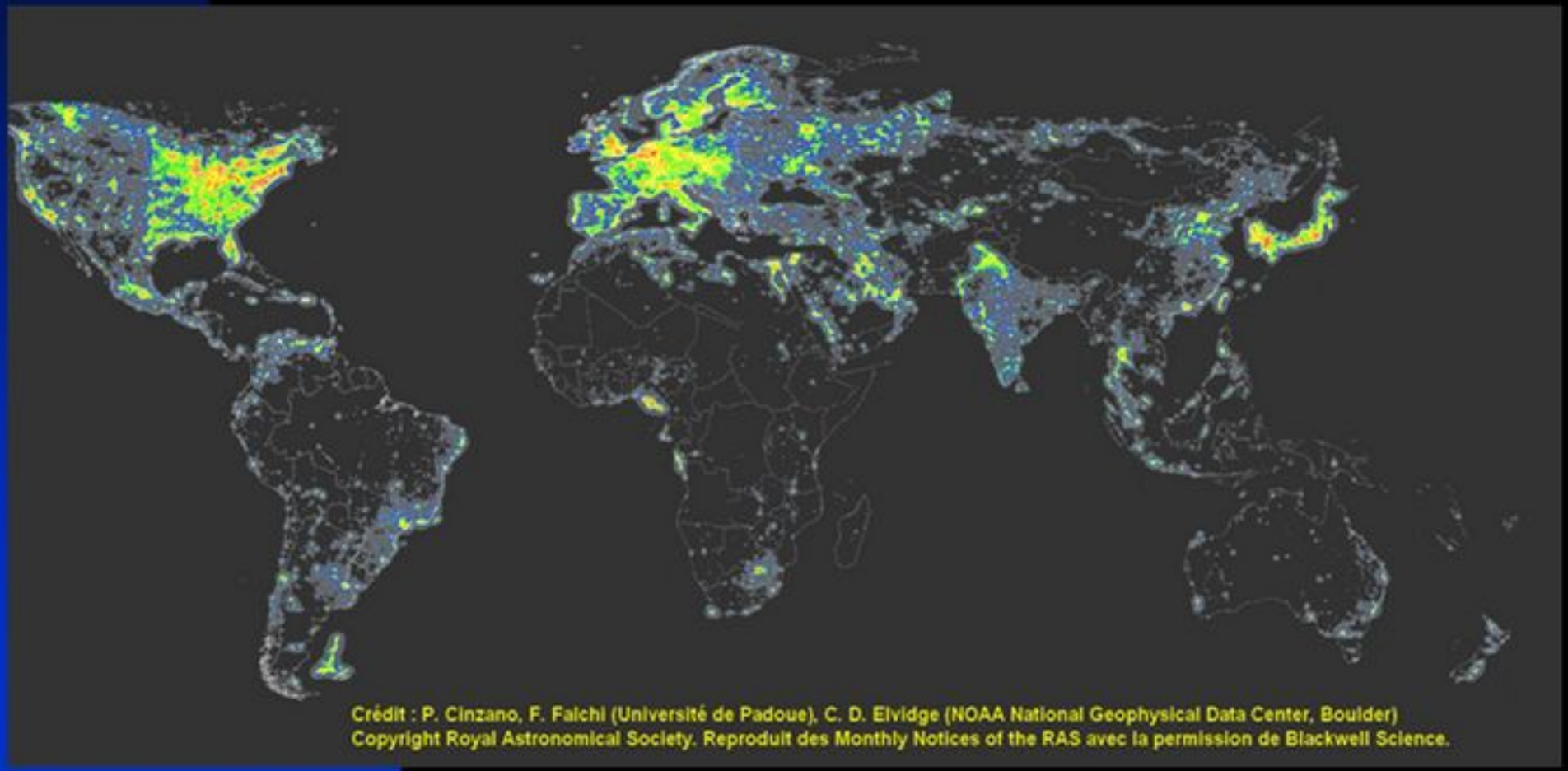
To do it, a team of French astronomers analyzed the spectrum of this light to bring to light the infrared peak of the vegetation.

Why not to analyze the same light to find modulated signals ?



Arnold L., Gillet S., Lardière O., Riaud P., Schneider J.: 2002, ``A test for the search for life on extrasolar planets: Looking for the terrestrial vegetation signature in the Earthshine spectrum"

THE NIGHT LIGHT POLLUTION OF THE EARTH IS WELL KNOWN AND MAPPED TODAY



Crédit : P. Cinzano, F. Falchi (Université de Padoue), C. D. Elvidge (NOAA National Geophysical Data Center, Boulder)
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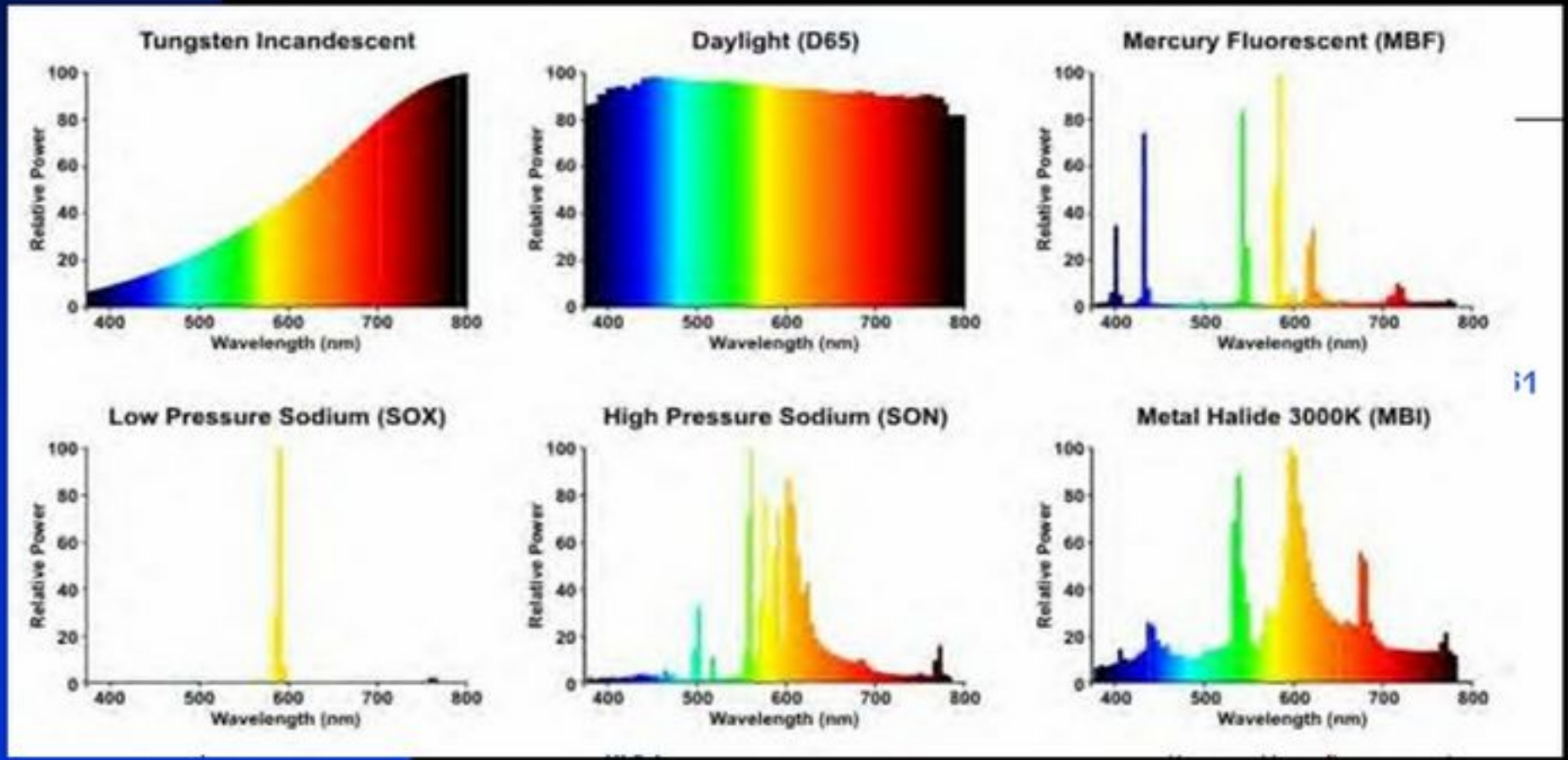
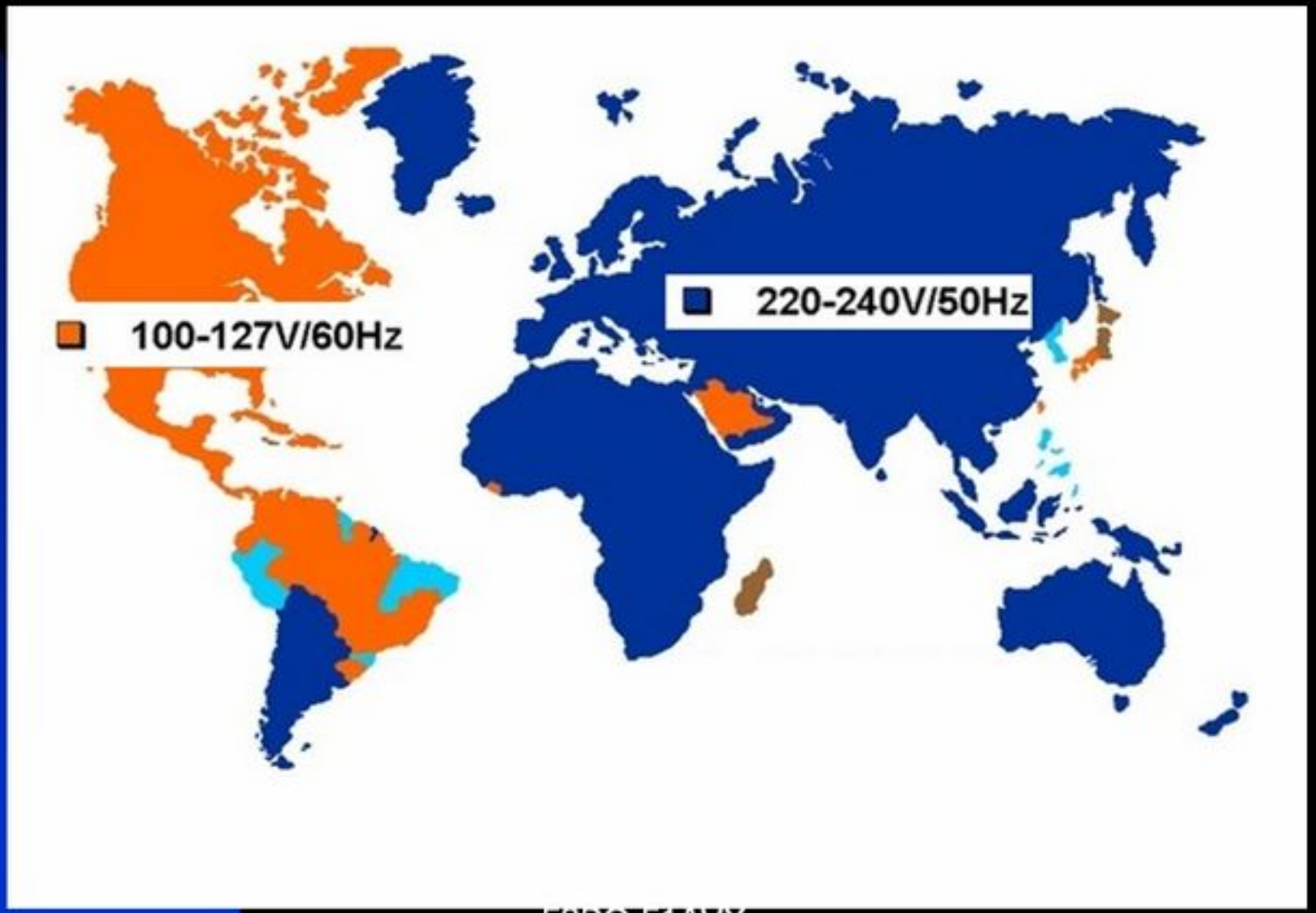
THIS LIGHT POLLUTION RESULTS ESPECIALLY FROM CITIES LAMPS WITH SODIUM OR MERCURY DISCHARGE.



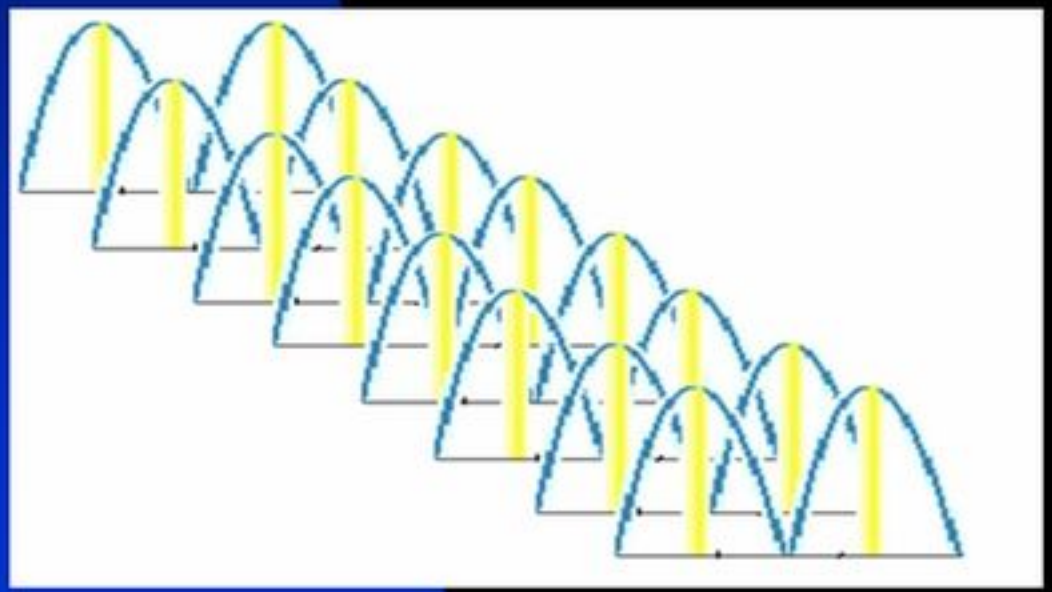
THERE ARE IN THE WORLD TWO KINDS OF ELECTRICITY NETWORKS

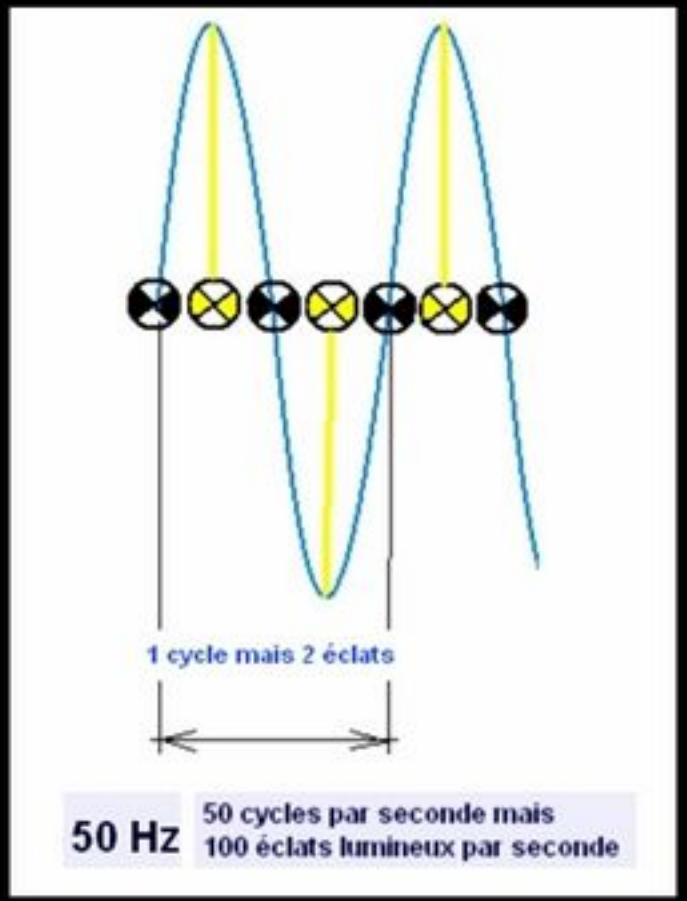


THE LIGHT EMITTED BY A LAMP IS MODULATED In 2 x F

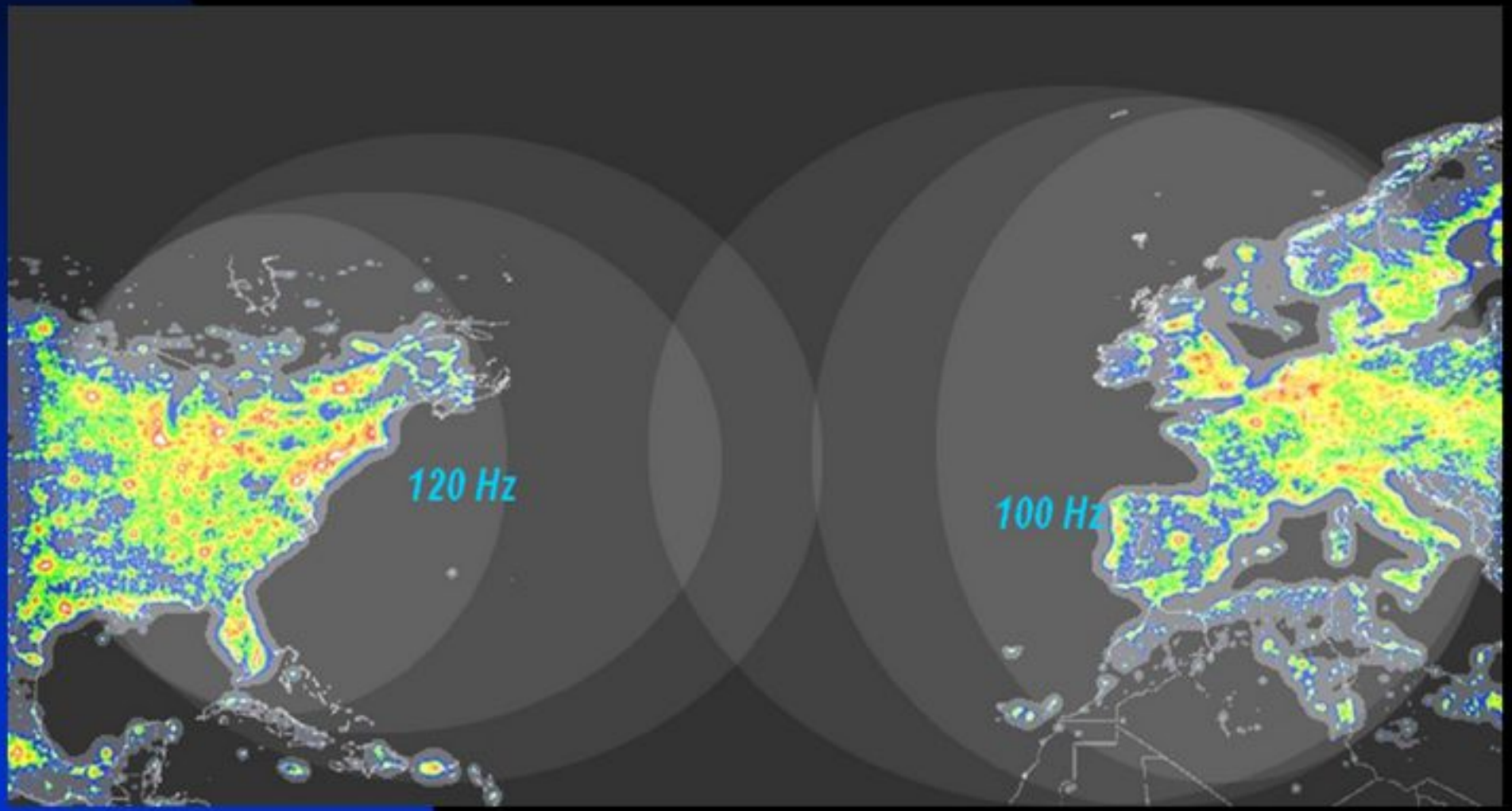
The three-phase networks create multiple radiation sources with T/3 phase offset. Their superimposing gives a supplementary harmonic modulation.

One detect in particular 6 x F



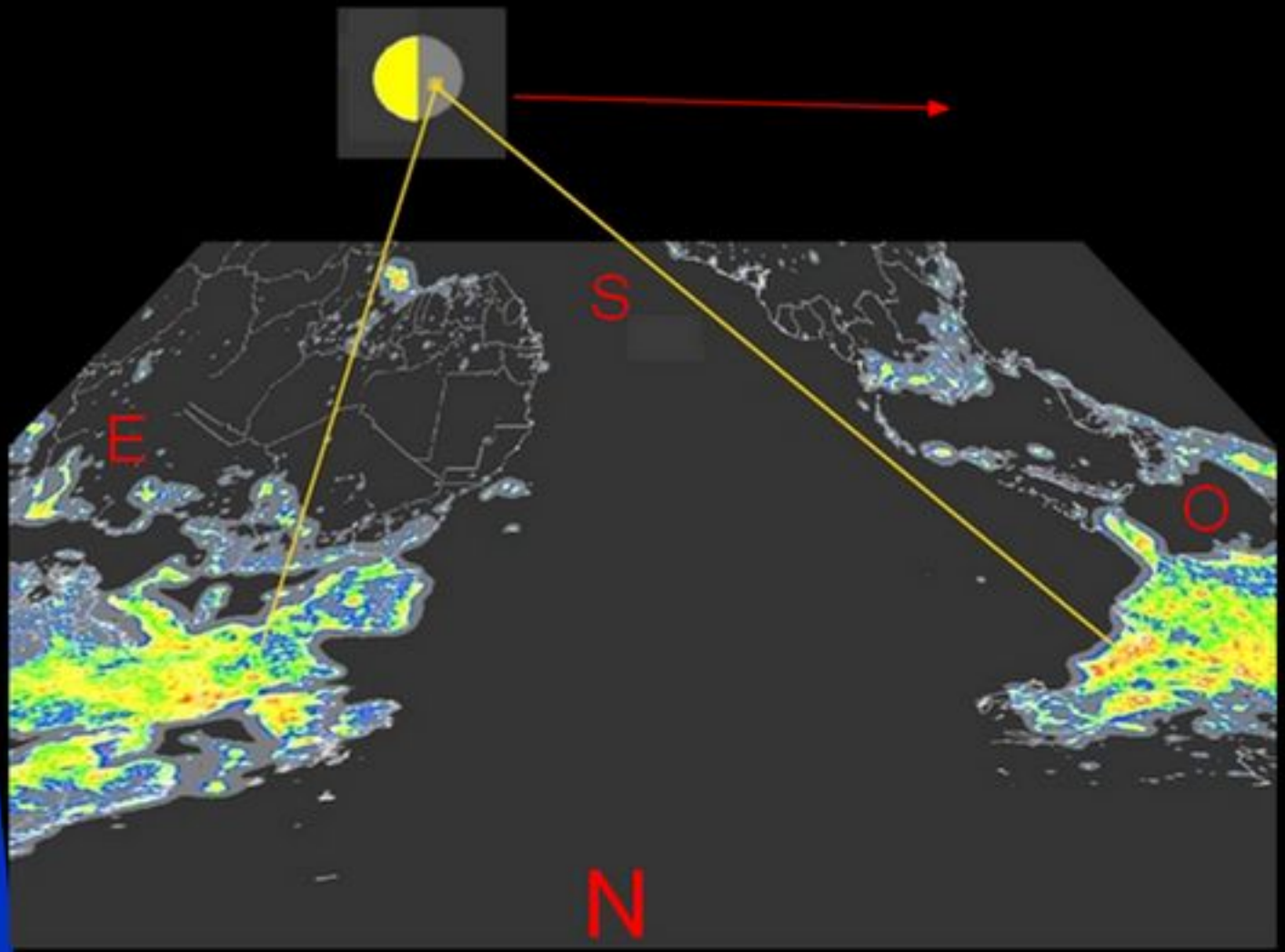


ACCORDING TO THE CONTINENT OF ORIGIN, THE RADIATION THUS CONTAINS 100 and 300 Hz OR 120 and 360 Hz.



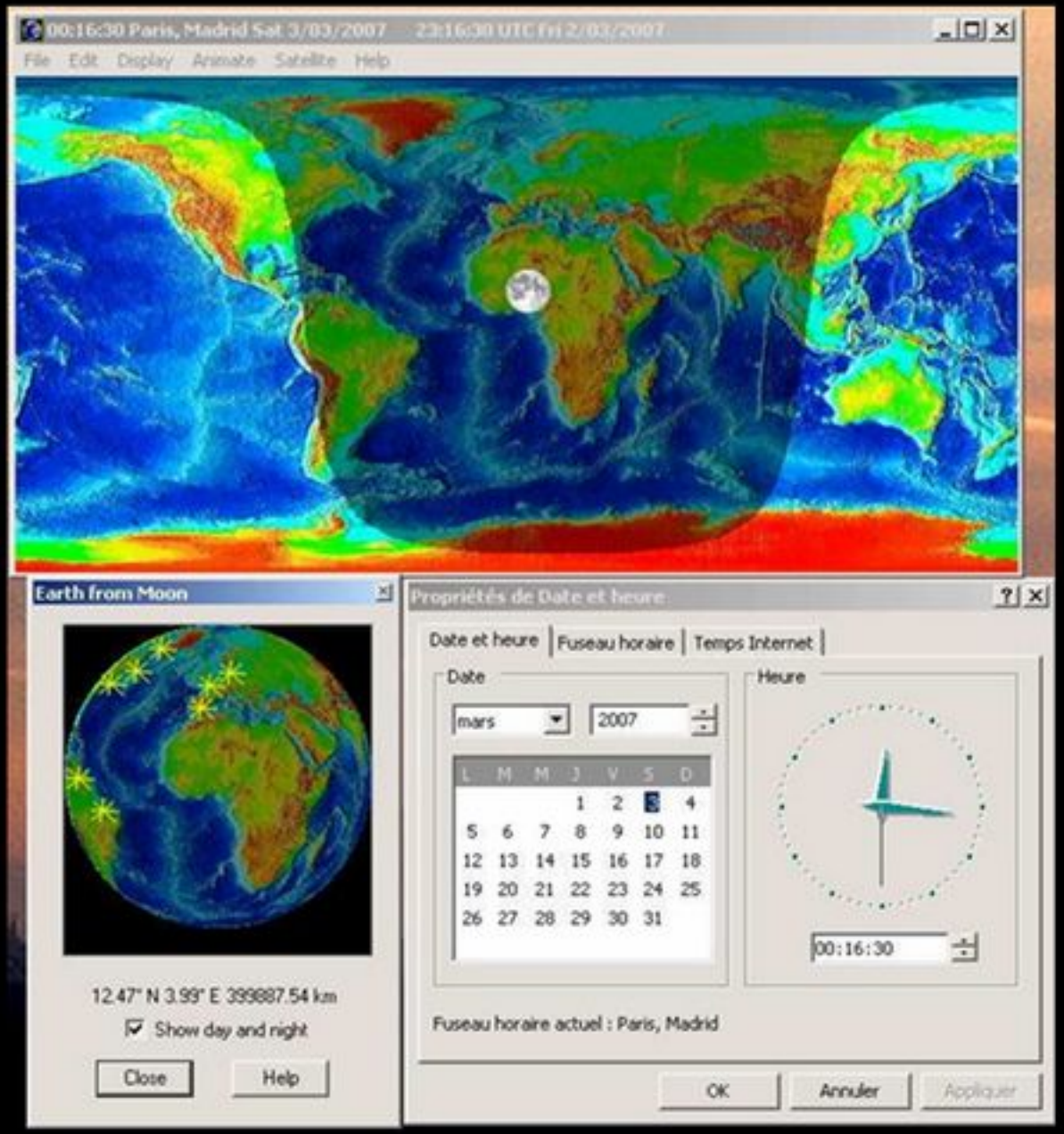
DETECTION PRINCIPLE.

We try to find 120 Hz or 360 Hz in the light reflected by the moon …



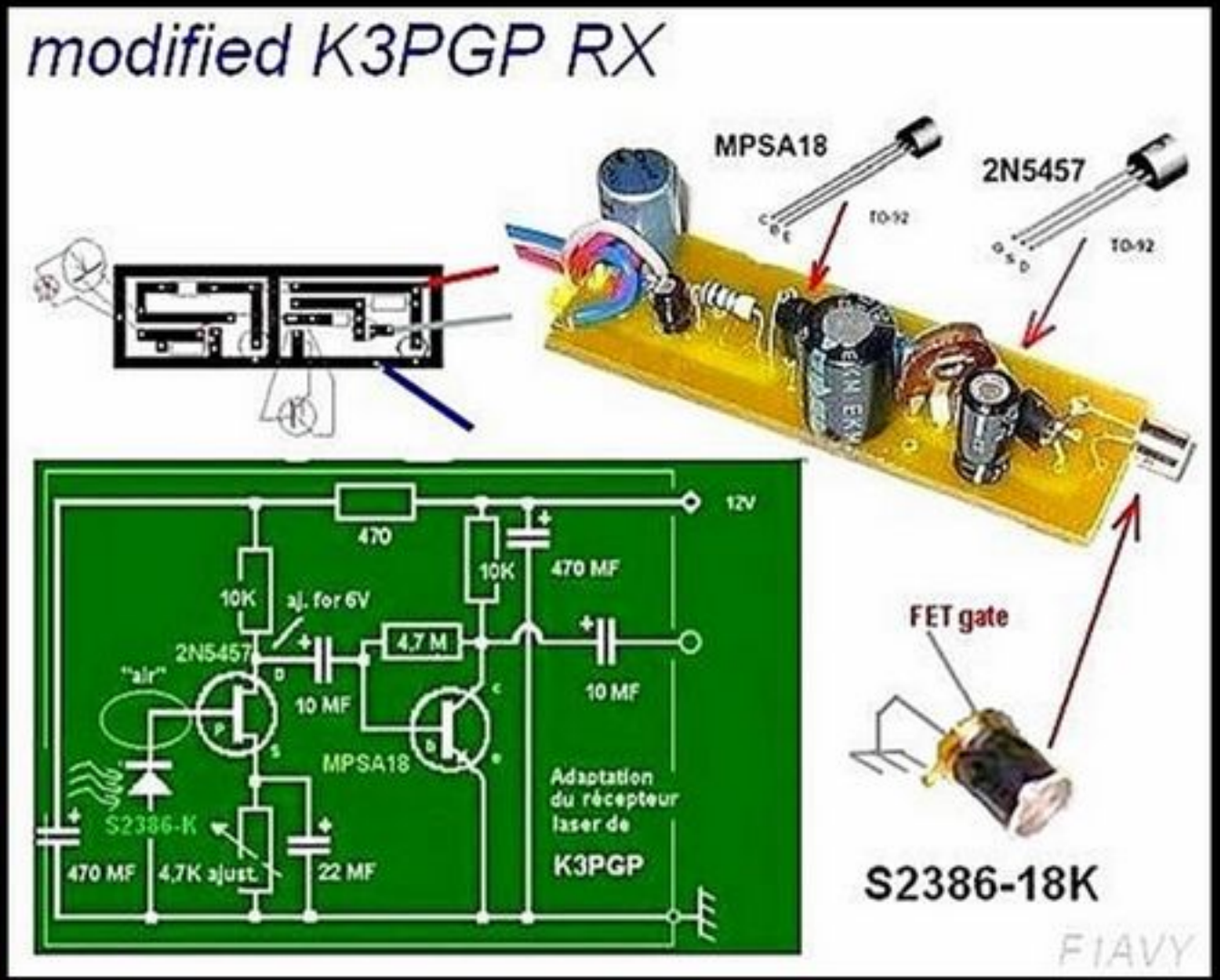
THE AVAILABLE TOOLS :

The program " home planet " allows to see the earth from the moon with the visible regions and their illumination at a given moment.



THE JOHN YUREK K3PGP'S PHOTO ELECTROMETER

John built an extremely simple and sensitive photo receiver.



THE OPTICAL SYSTEM

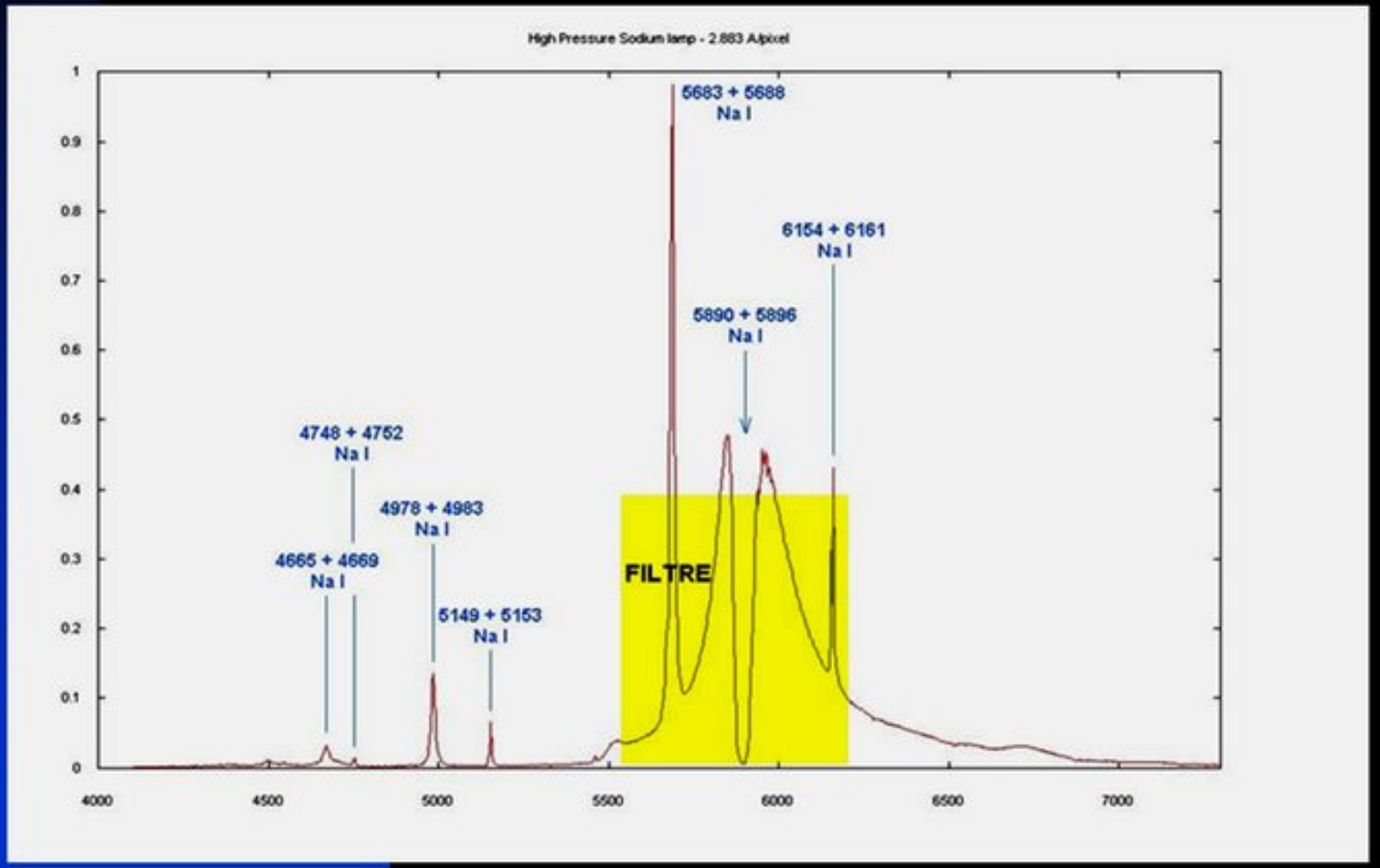
This receiver associated with a very narrow filter centered around the lines of the sodium and with an optical system of concentration can receive extraordinarily weak signals :

Less than 10-15 W / Hz with the photodiode HAMAMATSU 2386-18K

THE FILTER CENTERED ON THE SODIUM DOUBLE LINES REJECTS THE SOLAR SPECTRUM MAIN PART.

Bandwidth lower than 100 nm

THE SNR IS SO VERY IMPROVED



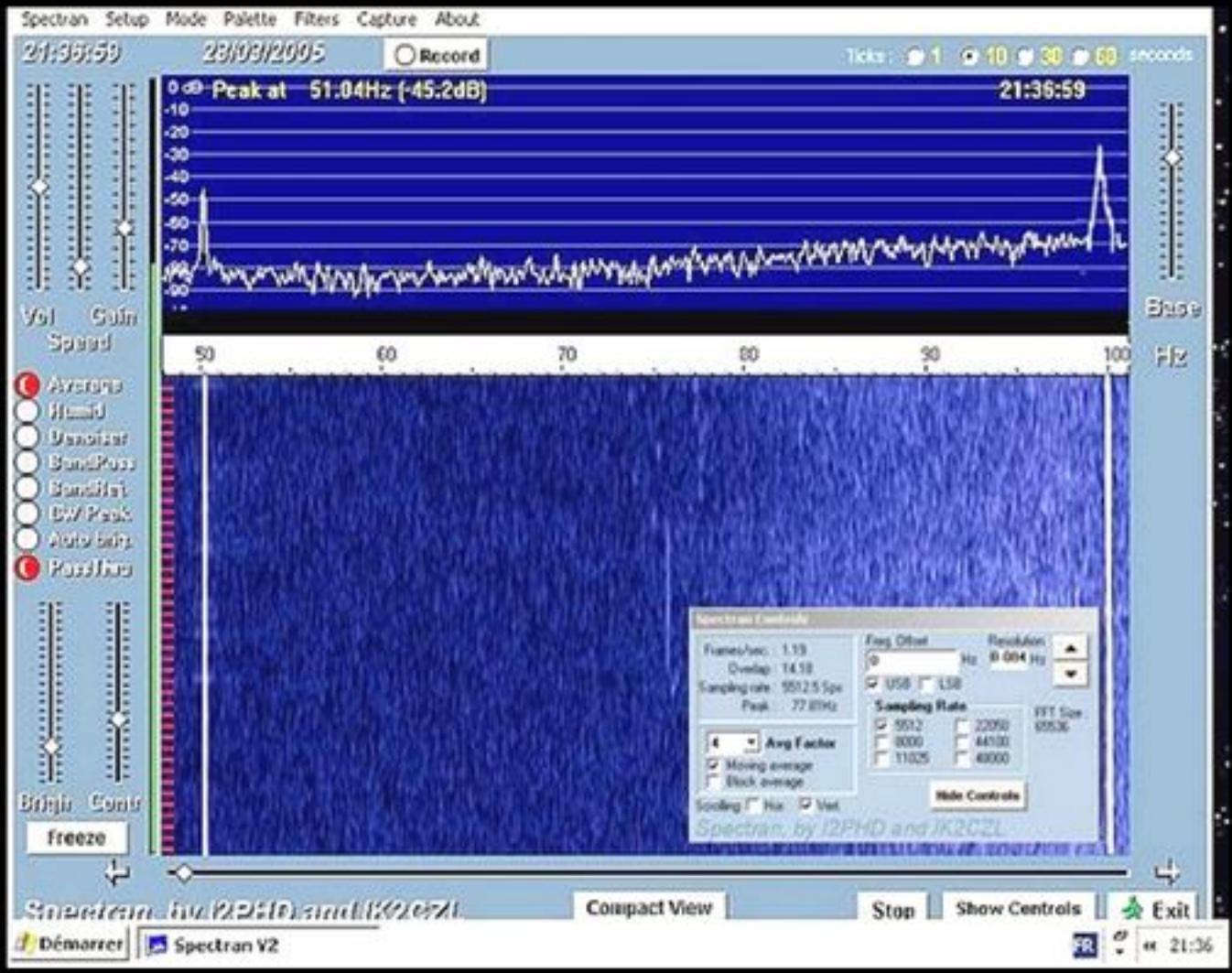
TREATMENT OF THE SIGNALS BY F.F.T.D.S.P. *

A P.C. allows the real-time treatment of the signals thanks to the * Fast Fourier Transformations by Digital System Processing

EFFECT OF F.F.T.D.S.P.

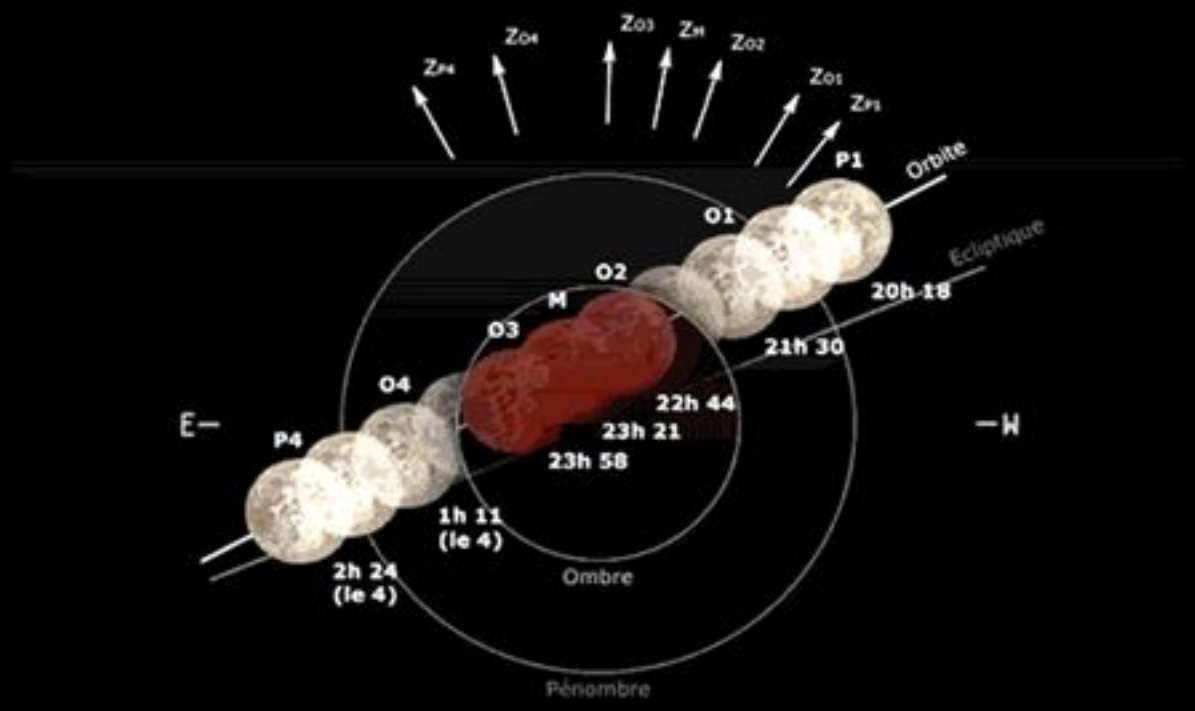
With a lower spectral sharpness than 1/10 Hz, we can fetch signals flooded in the background noise and totally inaudible.

Example: extraction of a signal in the noise thanks to the program " Spectran " of Alberto di Bene I2PHD.

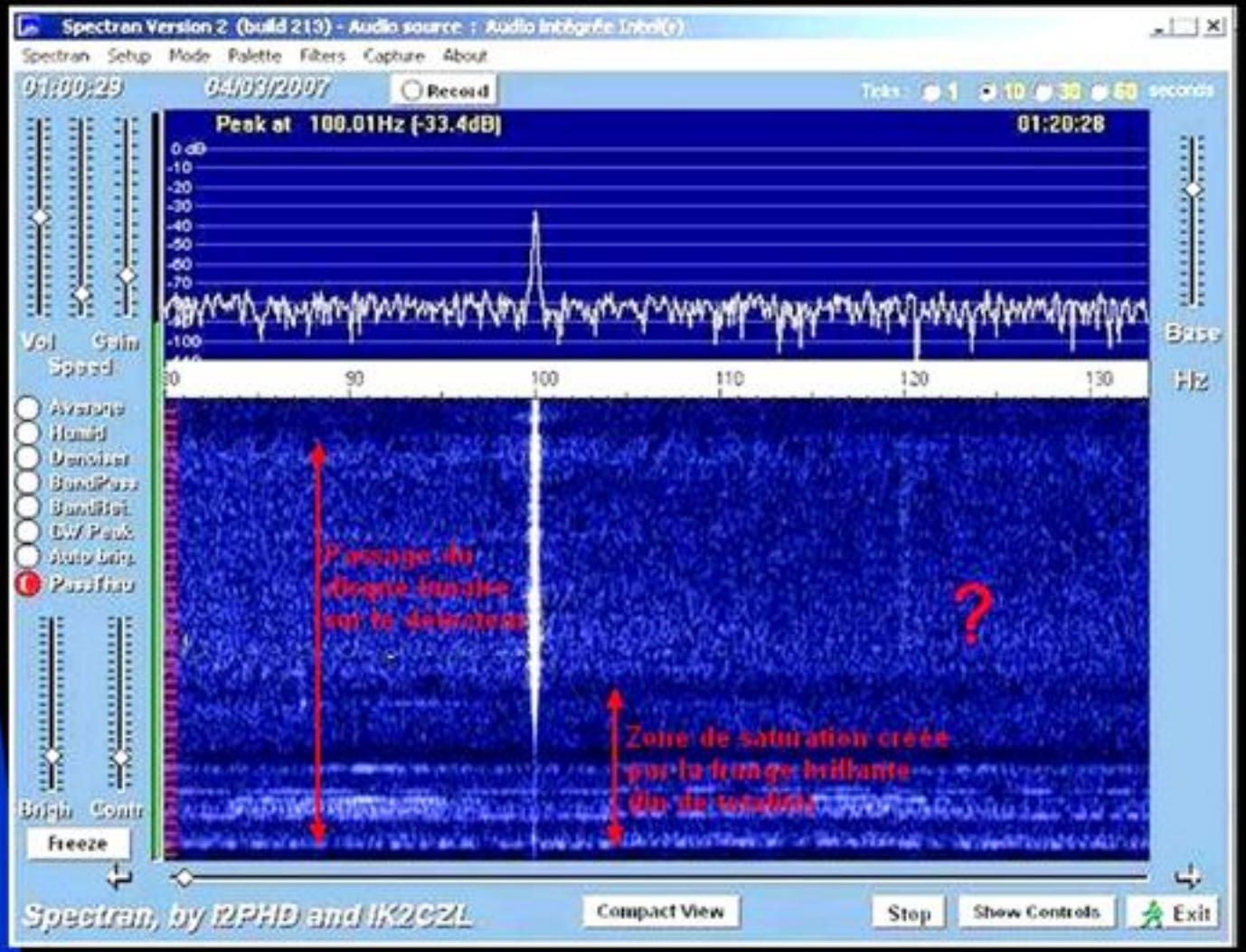


MARCH 3RD, 2007: A VERY FAVORABLE CIRCUMSTANCE

A moon total eclipse can be also a very favorable observation circumstance.

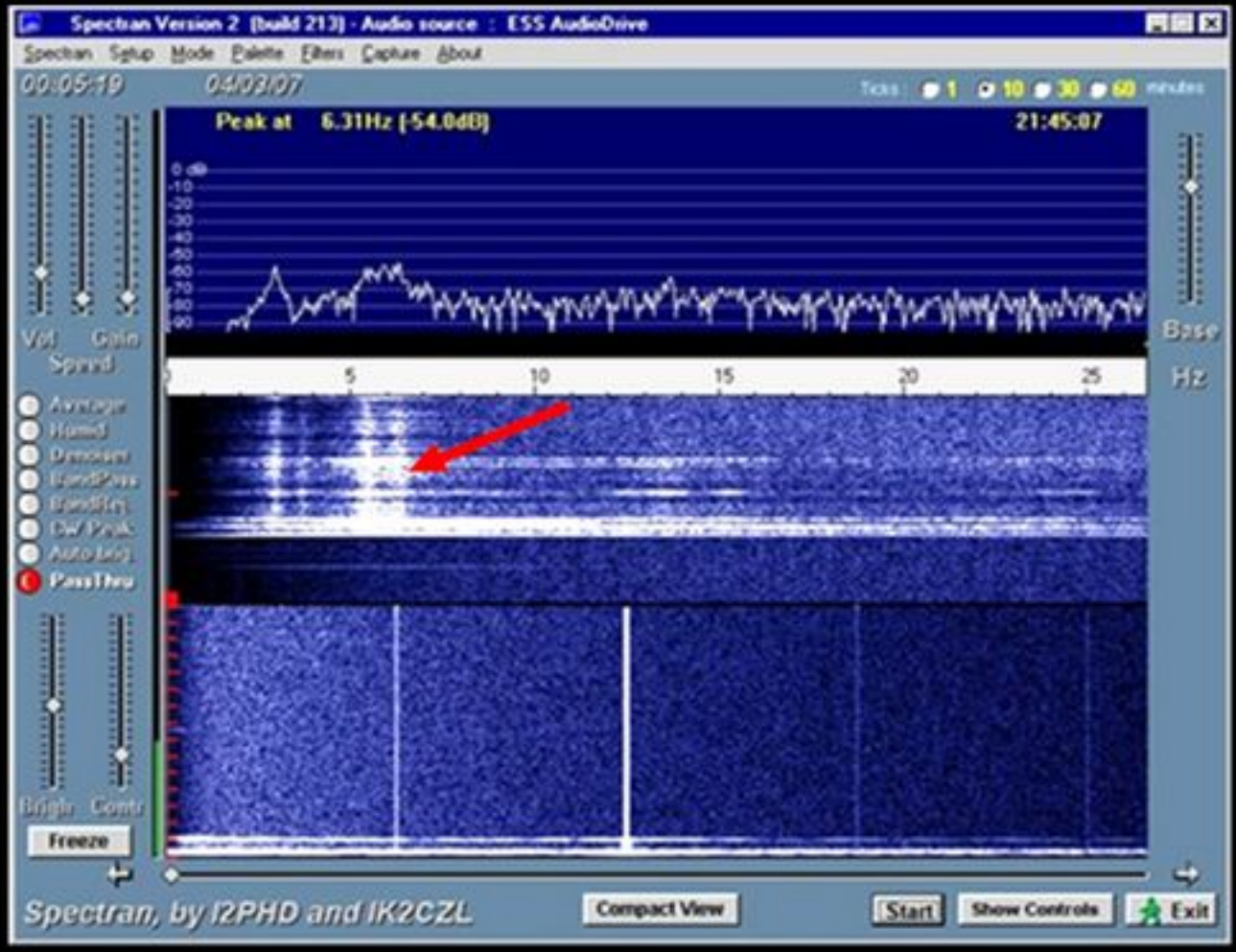


A weak track is perceptible on 120Hz from our photo detectors. Is it the expected signal ?



We also detect a very curious beating phenomenon in the residual light of the moon

This phenomenon that appears just after the totality could be similar to the noticed " flying shadows " during the sun eclipses.



Many other experiments must be realized to confirm these observations.