

The Moon's influence on the climate.

Vladimir V. Ivanov. Bergard R,P,

Institute of Marine Geology & Geophysics, Yuzhno-Sakhalinsk, Russia, Iva38@mail.ru

The Moon's influence on the climate is well known. Many peoples take into account the Moon's phases if they are planning the agriculture activity.

It is not a prejudice, it is a real fact. The long term observation of meteorological parameters show that the spectral maxims on periods of Moon's nodes regression (18.6 years), the spectral maxims on the combinations of frequencies of Moon's and Sun rotation around the Earth are observed on the spectra of variation of air pressure. and air temperature and precipitation.

The Sun eclipse by Moon is the one of the mechanism of Moon's action into climate. The air and soil temperatures decrease in the area of Moon's shadow. By analysis of long term variation at point Alexandrovsk (Sakhalin, 50N, 140 E) is shown that this effect (temperature decreasing on amplitude several degrees) is observed not only in the shadow area, but every time when the shadow's trace is coming through the North part of Pacific. Theoretical investigation of the effect show that the spectral maxims must be observed on the combinations of frequencies of Moon's and Sun rotation around the Earth.

The analysis of events on period from 1990 – 2005 show that the eclipse generates the tropical cyclone if the shadow's trace crosses the boundary between the tropical and equatorial air masses. This cyclone propagates along the Asia continental boundary by usual trajectory of tropical cyclones. By this way it comes to Sakhalin Island. So the eclipse every time accords by cyclone, retarded on 5-6 days.

However, the many of spectral maxims can not be explained as a result of eclipses. We think that the another mechanism of Moon's influence on the climate is existed.

The evidences of this mechanism have been discovered in observations of ice breaking in mouth of Amour River. (point Nikolaevsk).

There are discovered that the date of ice breaking is coincided with date of syzigy when the daily components of Moons and Sun tides are coming simultaneously. We propose that the additional pressure on the ice covering, created by the tidal force, destroys the ice field. In the result the big flow go down from the continent to the sea. This flow amplifies the Sea currents which influents on the meteorological condition in the coast area. The fine structure of spectral maxims of periodical current's variations (61 days) has been investigated and maxims on combination of frequency with frequency of Moon's node regression have been discovered.