ABSTRACT

In 2007, it was the 50th year anniversary for human beings enabling to launch the first satellite to orbit the earth successfully, named as "Sputnik". It was considered that the space age had begun from that period. Throughout the past half century, the progress of science and technology on outer space studied by human beings had rapidly been developed. As a result, a variety of outer space activities was increased and various, particularly the outer space commercial activities. These can be divided into types as follows:

1. Activity concerning satellite – This type of activity was in the forms of the usage of satellite, including satellite utilization for telecommunication such as providing services of telephone, television, radio, or even internet through satellite, or for resources survey in a long range, called "Remote Sensing".

2. Activity relating to satellite – This type of activity was to encourage the outer space activity in other forms which can achieve the objectives such as providing services on production, launching satellite, rocket, spacecraft, including related services.

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3. Activity on transportation – This type of activity was in a feature of transportation service such as satellite or transporting human beings into the outer space.

4. Activity on letting or allowing using a property in the outer space such as services of using transponder or being certified in the location of satellites in the orbit (Slot).

5. Activity on outer space research and development – This activity is in service forms of search, research, product development in zero-gravity condition of the earth which can support better outcome such as pharmaceutical products, crystal, and alloy which will be conducted on the space station.

6. Activity on natural resources – This activity will utilize natural resources enormously locating in outer space such as solar cell energy and minerals.

When studying in the outer space issue, it was inevitable to consider criteria of space law, called *Corpus Juris Spatialis*. Since Thailand had given consent for the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies 1967, it provided Thailand to obtain the rights, duties, and responsibilities for operating any outer space activity which shall be in accordance with the scope of the abovementioned treaty. In addition,

this included the provision and adaptation of Thailand's internal laws which came into force to the operation of outer space activities. With this regard, it considered as an important connection between criteria of space law and Thailand's internal tax law.

According to the international tax law, country using its power to impose tax as a country having income shall appear a connecting point between income and income earner, called "source rule", such as a transaction causing income or property causing income which is located in the said country. Income from the outer space commercial activities was a special income which was under the power of tax imposing of source country such as income from production service, release of satellites into outer space or telecommunication service through satellites. The reason was the mentioned transaction shall contain a significant element, "Permanent Establishment", no matter such transaction was production factory, launch platform, or uplink – downlink facilities. The permanent establishment was an important connecting point that the relevant countries can impose income tax as source country. Moreover, the income from commercial space activities was not an income under the power of tax imposing such as income from using transponder or being certified in the location of satellites in the orbit (Slot). The supporting reason was that these transactions had properties causing income and locating in the outer space. In case of search, research, and product development conducting in the space station, this transaction did not occur in the

source country, but in the outer space. Therefore, if income earner does not have a permanent establishment or fixed base in such country, the income earner shall not have any obligation of income tax from such type of income. However, according to the analysis of tax income obligation from the outer space commercial activities, the criteria of local tax law of the source country shall be considered individually because each country has different criteria on consideration of income tax obligation.

When the income earner from the outer space commercial activities doesn't have income tax obligation in source country and other incomes have the income tax obligation, and both incomes come from the same country, income tax shall be calculated together in order to pay such tax in Thailand as a resident country of income earner. The income earners decided to apply the rights of the unilateral relief of double taxation by virtue of the royal decree issued under Revenue Code (No.300) B.E. 2539. In case of problem occurrence, the income from the outer space commercial activities in type of no income tax obligation in source country can increase foreign tax credit limitation which taxpayer is entitled to obtain the rights under the Royal Decree (No.300). The foreign tax credit limitation was calculated by "a part of Thai income amount computed from income earning from overseas businesses in each country". Therefore, when the taxpayer from the outer space commercial activities in type of no income tax obligation determines are activities in type of no income earning from overseas businesses in each country".

computation of income from overseas business with income tax obligation in order to calculate the tax credit limitation. The provision of the Royal Decree (No. 300) did not clearly state the prohibition of inclusion of income without tax obligation in the tax calculation had affected the tax credit limitation of other type of income from undertaking other business to be increased higher than the case that taxpayer whose income didn't from the outer space commercial activities without income tax obligation in source country.

In addition, the said income from the outer space commercial activities shall affect the reduction of corporate income tax rate of Thailand when calculating tax to be paid in Thailand. The reason was when a tax payer had higher tax credit limitation; the tax payer shall receive foreign tax credit against tax to be paid in Thailand. If income tax in overseas are paid in overseas, the income tax to be averagely reduced shall be the income tax rate in Thailand.

Under the comparative study on criteria of the unilateral relief of double tax by tax credit method of Thailand and other countries in 4 main continents which are America, Europe, Australia, and Asia, the writer considered applying the problemsolving method of the United States as a guideline for improvement of the unilateral relief of double taxation in Thailand. There was a provision of taxing source rule for income from the outer space commercial activities without income tax obligation in source country for the benefit of the calculation of tax credit limitation. The provision considered that the income from the outer space commercial activities was not "income from overseas business". The income from the outer space commercial activities with income tax obligation (income from international communication) was still deemed as the income from undertaking overseas business. However, after tax calculation, the amount of tax credit that the taxpayer can earn shall not exceed 50% of total income from the outer space commercial activities (income from international communication).

However, according to the issue of the unilateral relief of double taxation for the outer space commercial activities, raised by the writer, was only one problem. The outer space activities still caused problems on tax law, for example, earning income in the International Space Station (ISS) was an dispute issue on which state should have a scope of tax power over such income. These problems were still awaiting for interested people to continue studying.