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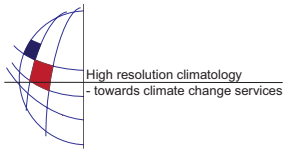

How to protect the Earth from Global warming by means of Sunlight Shield Equipments

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The Earth is getting warmer because excess carbon dioxide of the Earth's atmosphere.[U+3000]Many studies are proceeding in the world in order to prevent global warming. Three methods are studied: (1) How to reduce carbon dioxide of the Earth's atmosphere. For example, more trees will be planted and carbon dioxide is changed to oxygen and carbon. (2) How to reduce carbon dioxide emission that human activity makes. (3) How to protect the Earth from global warming. The first or the second method has been studied, and they do not immediately protect the Earth from global warming. On the other hand the third method has an immediate effect. Sunlight shield effects of a cloud or tiny sulfur in the air have been studied. The author has proposed a sunlight shield equipment which is composed of a flat balloon. Balloon's surface has a mirror function. The sunlight shield equipment is set at the stratosphere and its surface reflects sunlight to the space.

It is different temperature between daytime and night time, because the earth is heated by the sun during only daytime. Temperature of the Earth could be controlled by controlling an amount of a sunlight power which the earth receives from the sun. In other word, when many sunlight shield equipments are set and operated at the stratosphere, and an amount of sunlight, which the earth receives from the sun, could be controlled. For example, when an amount of the sunlight power, which the earth receives, decreases one percent, a mean value of the earth temperature deceases about one centigrade. In order to decrease one percent of a sunlight power which the earth receives, it is required that many sunlight shield equipments are distributively set and operated, and the gross area of many sunlight shield equipments is equal to 5,060,000 km squares. When a size of a sunlight shield equipment is equal to 5 km squares, about one million of sunlight shield equipments are necessary, and a large scale of cost is required. Therefore, an effective operation of sunlight shield equipments is desired.

This paper clarifies how to operate effectively sunlight shield equipments in order to protect the Earth from global warming, and considers issues of the equipment operation.