Korea Astronaut Mission Proposal with Analyzing Astronaut Missions of European Space Agency

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It is no exaggeration to say that science and technology of Korea stand shoulder to shoulder with the developed nations at present. So it is thought space development ability of Korea with such infrastructures is enough and there has been deep concern and many investment about the development of a launch vehicle, stellite, and so on. It is time to need to cultivate a Korea astronaut as to promote the growth of technology with more international competitiveness when we consider such space development ability and technical level of Korea, that is, to make a chance to join the ranks of advanced countries of a space industry through which a Korea astronaut is cultivated, visits International Space Station (ISS), grasps environment about space and does experiments about a long term stay of human. This not only make science and technology ability growed but make interest of a people about science and technology raised, in particular this have many merits in the side of education to students. This paper is studied about missions which a Korea astronaut carries out when a Korea astronaut is first cultivated. First of all, scientific missions which astronauts of EAS(European Space Agency) similar to conditions and a method of Korea Astronaut cultivation experiment on the ISS (International Space Station) in space are studied. European astronauts are one of the outcomes of a framework agreement signed between ESA and Russia in May 2001, allowing European astronaut to fly to the ISS on Russian launchers during the period 2001 to 2006. After that, missions suited to a Korea astronaut are proposed and inspected. The proposed missions are largely categorized with six fields, that is biology, physiology, physical science, earth observation, technology and education. Biology experiments mainly aim to study the effect of space environment, weightlessness and radiation, on a gene, metabolism and structure of life cell using bacteria, plants, fly, and so on. Physiology experiments mostly consist of physical and mental examinations. This study aim at the long term stay of a human. The physical science study suggests experimenting a physical phenomenon to arise just

in space. This study in earth observation suggests observing the earth from the ISS using digital microcamera. In technology, this mainly proposes facilities the inside of the ISS and experimental equipments. In education, this activity is to provide the information of a spaceship life and space environment with plants and experimental device, to demonstrate a physical phenomenon to students with a educational objectivity. Experimenting in spaceship has so many problems relative to safety, a limit of time and room, restriction of experimental equipments and especially experience shortage of a Korea astronaut. So it is thought that significant and many experiments are impossible. But if this approach in the long run, space programs can achieve more growth.