47th IAA SYMPOSIUM ON THE SEARCH FOR EXTRATERRESTRIAL INTELLIGENCE (SETI) – The Next Steps (A4) Interactive Presentations - 47th IAA SYMPOSIUM ON THE SEARCH FOR EXTRATERRESTRIAL INTELLIGENCE (SETI) – The Next Steps (IP)

Author: Mr. Aditya Mishra

University of Petroleum and Energy Studies, India

Dr. Ugur Guven UN CSSTEAP, United States Ms. Shivangi Chauhan University of Petroleum and Energy Studies, India Mr. Shashank Pathak Technical University of Berlin, Germany Mr. Ankesh Shekhar India

MERITS AND DEMERITS OF PERFORMING EXPERIMENTS AND EXOPLANET IMAGING OUTSIDE THE DISK OF OUR SOLAR SYSTEM AND POSSIBLE EXIT PATHS IN THE DIRECTION OTHER THAN THE PLANE OR OUR SOLAR SYSTEM TO EXIT THE PLANETARY PLANE

Abstract

Numerous evolutionists have long hoped to find evidence of life in space. They reason that if life evolved on Earth, then it could have evolved elsewhere. If, as the argument goes, there are endless planets throughout the universe that have formed via natural procedures, there must be other Earth-like planets. Many think that finding such a planet outside our solar system would be relatively similar to finding evidence of life in space. Humans need to answer two main questions regarding exoplanets. 1) Do they exist? and 2) How did they form? The second question has to do with starting point science, but the first has to do with experimental evidence. Scripture does not tell us whether other stars have planets, so we must apply the best observational science we can to answer the question. Scientists have searched for years for planets orbiting other stars. These are called extrasolar planets, or 'exoplanets'. Astronomers first obtained evidence suggesting extrasolar planets around 1995 while studying the sunsized star 51-Pegasi. Today there are research teams around the world searching for extrasolar planets with greatly refined research techniques. There are now over 450 objects catalogued in exoplanet lists. But all these experiments are done in the plane of our solar system where aberrations are experienced due to the celestial bodies inside our solar system including the large Kuiper belt. Even the Hubble Space Telescope is situated in the plane of our planetary system. Also, exoplanet imaging techniques such as radial velocity method, transit photometry and direct imaging is less efficient while observing the line of sights horizontal and parallel to our solar system disc. The planes of solar systems in the universe are all oriented in different directions. What determines their orientations is the direction of the angular momentum that the system had when it formed, and that's pretty much random. Our own solar system is inclined by about 63 degrees with respect to the plane of the milky way galaxy. Experimenting for extra solar planets from outside the plane of our solar system will provide best results and allow images to be taken even in the directions not explored before. This paper will focus on the merits and de-merits of performing Exoplanet experiments and imaging outside the plane of our solar system. Also, this paper will discuss possible locations and exit paths for our solar system for future space missions.