Week 5 TPO 40 Task 1

The reading and the lecture are both about the possibility of maintaining a permanent life on Venus. The author of the passage believes that the extreme condition of the Venus prevents human from living there. On the other hand, the lecturer mentions that although human life on Venus may be challenging, it can be possible. He suggests a floating station in Venus’ atmosphere instead of landing on its surface to solve the problems which the passage mentions.

The first issue that the author claims on, is the pressure of Venus’ atmosphere near its surface which is at least 90 times greater than what we have in earth. Therefore, this much force will cause crush to any spacecraft or human land on Venus. The professor casts doubt on this by explaining a famous physical fact says the furthest distance from the surface the lower atmospheric pressure. Thus, considering this rule, in 50 kilometers upper from the planet surface there is no threat for the station to explode.

Secondly, the author states that the atmosphere of Venus is composed of carbon dioxide, nitrogen, and sulfuric acid, there is almost no oxygen or water vapor in the Venus’ atmosphere, also no water on its surface, so the oxygen and water that human need, must transmit from earth that would be infeasible. The lecture counters this argument by asserting that there is no necessity for importing these human needs since they can produce water or oxygen from carbon dioxide and sulfuric acid existing in Venus by a chemical operation.

Finally, the author believes that a large amount of sunlight is reflected by thick clouds existing in the atmosphere of this planet and blocked by a compact layer of carbon dioxide down those clouds which don’t allow sunlight to reach the planet surface. Thus, in consequence of lack of light, the solar power system cannot be used. Therefore, as the human will not be able to produce electricity, machines and equipment cannot help them in their life. The professor rebuts this. He explains 50 kilometers above the surface of Venus; clouds are not that much thick. However, the reflected light can be used in addition. He elaborates that absorption of both direct and indirect light can provide the power station need.