

All three goals seem very interesting: for example, the first because of the beauty and the complexity of Saturn's rings and moons, and the third for the particularity of Rhea's surface, but if the Cassini sonde's instruments could be aimed only towards one of the three target I think it would be appropriate to point them toward the second.

Initially this may seem less appealing than the other two, but I think it has great potential.

The main reason that prompted me to choose this target is the fact that besides being interesting it could be very useful for scientific research.

In fact nowadays several teams of scientists are looking for planets with characteristics similar of Earth's (as the presence of water in its three states, the presence of particular molecules, acceptable temperature etc.), But to do this kind of research you have to leave the solar system because as well as the " blue ball " no other planet in our system is able to support life.

Consequently we have to go looking towards systems that are very far and where even the most advanced satellites aren't able to get close enough. Then you should analyze a celestial body from abysmal distances, which would exceed a billion kilometers and to perform reliable studies from such distances requires a lot of knowledge and also different tools, more powerful than those we already have.

Then to improve our notions and therefore also our notions it's very useful to perform experiments.

Just now we can understand the usefulness of the second target. In fact, Cassini sonde is located at the considerable distance of 1.5 billion kilometers from Jupiter and at this point it can be studied as an exoplanet, that is, as if it were a planet outside the solar system.

Thereby focusing on it the sonde's instrumentation, from the images obtained can be made many considerations and hypothesis on the planet: for example, you can make predictions about the trajectory and duration of its orbit, estimate its size or check if it has moons or rings like Saturn. Subsequently the results of these analyzes can be compared with results from previous studies, performed by sondes located in positions closer to jupiter.

In this way you can verify the accuracy of the data obtained and if the results are not correct you can review the calculation methods and study, a bit like trying to solve a difficult problem, already knowing the solutions.

I give much importance to this target because it could be taken as an experiment to develop new technologies with which the horizons of human knowledge can be extended.

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