

1. The Hope probe will reach its destination within hours. What do you think of this first step in the Arab world?

A: Yes. It is not only a breakthrough for the Arab world, but also for humanity. It is proof that space exploration does not belong to the world's super powers only; it belongs to the entire human race.

2. How would you evaluate the Hope Probe experiment to explore Mars?

A: It was ambitious for the UAE Space Agency to have three sophisticated scientific payloads onboard of the Hope Probe. The combination of such a wide band optical imager from infrared to ultraviolet light will reveal Mars's atmosphere and surface better than before. I cross my fingers and hope the sensors work normally and bring us back valuable data.

3. The probe receives orders from the ground control station in Dubai, how would you evaluate the work of this station?

A: Due to the long distance between the Earth and Mars, the radio wave signal will be significantly attenuated. To communicate with the probe, it is very necessary to have a sophisticated ground station equipped with a very large antenna and a high power transmitter. Since the Earth is rotating, one ground station can only communicate with the probe half of the time, which means the probe will have to operate automatically until it is within the station's field of view.

4. In your opinion, what are the priorities that the UAE should put in its agenda for space exploration?

A: Space exploration is both political and practical. If one government considers it as a political mission only then it will not be sustainable. Science is both political and sustainable since you never “re-explore” what you have already explored. Therefore, maintaining a high level scientific objective is important for your future programs.

5. In your opinion, what difficulties will the Emirati space exploration project face?

A: One of the difficulties, is educating the young generation on how to read and utilize scientific data. Another one, is to offer the data to the entire world to maximize its scientific return.

6. Do you expect more Emirati space exploration projects during the coming period?

A: Yes, once this Hope Mission generates the intended political impact and scientific return, the efforts should continue.

7. The Mission of the Hope Probe will continue for two years, Earth time. Do you think this period is sufficient for the mission?

A: Two years is the minimum required period, since Mars rotates around the Sun every 25.6 months. Only if you cover all the seasons of Mars, you will be able to judge whether the variations of your data are due to the seasonal variation or due to its variation in time.

8. The UAE will provide data for free to international research centers, what is the significance of this decision?

A: It is very important to spread the data on an international level. This will lead to maximizing the scientific return (more discoveries and publications) of the project. However, you could keep it for your own PI for a short period of time (for example 6 months) for executive use in order to have the important discoveries first hand, in addition to encouraging the proposal of the next innovative mission.

9. I am one of the fans of Hazzaa Al Mansour, the first Emirati astronaut. How do you see the UAE's investment in its youth in the field of space?

A: Manned missions are very political and very expensive. Therefore, you should make maximum use of your astronauts to inspire the young generation and the general public.

10. Do you think the UAE should be expansive in the field of training for space exploration?

A: Yes, but only if you understand and maximize both the political and scientific return of the program.

11. As a member of the Space Agency's advisory board, how do you evaluate its work, and what are the future visions for its work over the next decade?

A: For the UAE, it is wise to use the brains of the space powers around the world in order to have all the lessons learned. The committee works very well and the Space

Agency prepares well before each committee meeting, making them highly efficient in their work. Due to the COVID-19 pandemic, no meeting was held last year, but I hope we will be able to conduct our committees again, once all of us are vaccinated.

