

Space Exploration and Physics Breakthroughs

Benjamin Deniston and Peter Martinson of La-RouchePAC TV interviewed Gen. Vladimir Popovkin (ret.), head of the Russian Federal Space Agency (Roscosmos) on May 22, 2012 at the Global Space Exploration conference in Washington, D.C. General Popovkin's remarks were translated from Russian by EIR.

Deniston: In late April, RIA Novosti reported that the deputy head of Roscosmos had spoken of a proposal to create a new Russian federal program to deal with the threats of potentially hazardous asteroids and comets. Could you speak to that proposal? It was also that the Russian Academy of Sciences would help coordinate that effort. What's the status of the current discussion?

Popovkin: There are such plans, that is true. But at this time we are not so much preparing to combat the threats; rather, at this stage, we want to evaluate these threats and establish a system of monitoring objects in space. We are drawing not only on the resources which Roscosmos itself is developing today, but also those of the Russian Ministry of Defense and the Academy of Sciences. And the purpose is precisely to begin to monitor outer space, and space objects.

Such a monitoring system will then enable us, to the extent possible, to combat, or counteract, some threats from space. But first we need to collect the statistics and make an assessment of the objective situation. Does something present a threat to us? If it does threaten us, then how great is the threat? If there is some degree of a threat, then when and with what probability? And after that, a decision can be made. This is what my deputy, Mr. Davydov, was talking about, and this is what has been supported by the Russian Academy of Sciences.

Deniston: Deputy Prime Minister Dmitri Rogozin has also spoken about the idea of cooperation with the United States

on this issue. If we had the optimal level of international cooperation, the optimal level of interaction between the United States and Russia, what would you like to see in terms of cooperation to address this?

Popovkin: When Dmitri Olegovich Rogozin spoke about this, he said that cooperation in this area would be a lot more useful and effective than building the European Ballistic Missile Defense System, the intended purpose of which Russia still doesn't accept, particularly when it comes to the deployment of surveillance and strike systems. And precisely from this standpoint, if this can be organized, it would be much more effective and better to do it. To speak more specifically, what was proposed was to involve all the available optics—regardless of where they are located or what agency they belong to—that are being used to study and investigate space, and have them operate under some kind of single plan or concept, in order to achieve the best possible monitoring of all objects in space.

Deniston: Mankind has not set foot on another planetary body since the early 1970s. Earlier you spoke to Russia's vision to change that, to get mankind to the Moon. I'm hoping you can speak to that further and lay out what Russia's perspective is for returning mankind to the Moon.

Popovkin: Well, human feet have already taken steps on the Moon, and there is no point in just repeating what was done 40 years ago. Therefore I was talking about something a bit different. I said that human knowledge about the Moon today is considerably greater than 40 years ago. The possibilities for lunar research are now



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LPAC's Ben Deniston interviews Roscosmos Director Gen. Vladimir Popovkin (right) at the Global Space Exploration Conference on May 22, 2012.

completely different, using the technologies produced through scientific and technological progress during those 40 years. And the first area, as I already mentioned, is research on the Moon itself, and on what there is on the Moon: including the areas where water has been detected, in the south and north polar regions of the Moon.

Secondly, if we take into account the particular features of the Moon, first and foremost the fact that it does not have an atmosphere, the Moon could become an ideal platform on which to position various telescopes, both optical and radio telescopes, for astronomical research, research on distant stars. What the participation of people looks like will be determined by whether we can now design such technologies to be completely automated, or if they will need to be serviced by human beings. Whether or not man needs to walk on the Moon or not will depend on that. That's what I was trying to say in my speech.

Deniston: Certain visionaries, such as the German space pioneer Krafft Ehrlicke or the American economist Lyndon LaRouche, have spoken of the colonization of space as a new era for the human species, one in which mankind can move beyond certain kinds of imperial conflict over resources, over military competition. So if we were to acquire the optimal level of international collaboration to actually commit to this mission for mankind, what do you see as the possibility for mankind's future as a truly space-faring species?

[Question as misinterpreted to General Popovkin by the simultaneous interpreter: There a lot of various specialists, people who at various times have stated the idea that sooner or later mankind will have to abandon the Earth, and relocate to some other planets because of scarcities of natural resources, food, water, energy sources. Some have gone even further, and described phantasmagorical pictures of showdowns, military conflicts, the mutual annihilation of people, and so forth. And that the only way out of that situation, in the opinion of a number of people—and the question included specific names—would be to leave this planet and relocate the entirety of mankind to some other platforms in space. What do you think about that?]

Popovkin: I think that for my lifetime and maybe 50 generations into the future, the Earth will suffice! As for various possible directions things might take, let the science fiction writers talk about that, and the unscientific fiction writers, too. Our goal today is to obtain as objective a picture as possible of our galaxy, or, say,

neighboring galaxies, so that our descendants, in some hundreds of generations, will be able to make objective and correct decisions, if necessity arises, in the event of some cataclysms occurring on our planet.

But it is premature to talk about Noah's Ark yet.

Martinson: In the United States we had a program called NERVA, which was a nuclear thermal rocket program back in the 1970s. Are there any programs being carried out now in Russia for specifically using nuclear reactors to propel thrust, for fission, nuclear fusion rocket propulsion, or even matter/anti-matter rockets?

[The interpreter omitted the aspect of matter/anti-matter propulsion.]

Popovkin: Yes, we are moving into work on a gigawatt-class nuclear-powered engine. And the development of such an engine is dictated by the requirements of exploring the remote planets. It's too early to report on any results. But it is my deep conviction that if we want to explore deep space, then, first of all, theoretical physics needs to advance quite a bit, because based on the laws of motion we know today, and of course the power units we have now, we won't get very far.

And if you can understand such things as the physics of black holes, or the compression of stars, or movement through worm holes—there are a great many of these theoretical things that theoretical physics today is investigating—I think that there ought to be some discoveries there which will allow us to travel based on completely different principles. These are all still profoundly theoretical matters, but at some point there should be demand for them.

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