Oberg-Fobos-Nov23 – Radio Contact!!

From: **James E Oberg** Sent: Wednesday, November 23, 2011 6:35 AM

1. Dramatic reports in recent hours tell us that a signal has been received from the Russian Phobos-Grunt probe stranded silently for two weeks in parking orbit near Earth.

2. The signal was received at the European Space Agency [ESA] site in Perth, Australia. This was the last planned attempt to contact the probe. All hope was about to be given up.

3. I have confirmed with private sources inside ESA that the signal was indeed from the probe, and not a spurious background coincidence. Technical details available -- just not for quoting.

4. Good overview and background here:
spaceflightnow.com/news/n1111/23phobosgrunt/

5. The ESA technicians had made adjustments to their antenna signal to make it easier to aim, and this seems to have worked.

6. The signal also was received when the probe was in direct sunlight, with electricity flowing from its solar panels. Contact attempts while it was in Earth's shadow failed. This has led engineers to believe that its batteries have failed [they were short-term units anyway] and it can function only when lit by the sun.

7. More complicated commands will be sent after 3 PM EST today, when next the probe passes within range of Perth, to turn on more systems and transmit telemetry about the spacecraft status. Those signals will be relayed to Moscow for analysis.

8. While a round-trip mission to the Mars moon Phobos is no longer feasible, the probe -- if control is regained -- could be sent off on one of several interesting seep space missions.

9. The probe had been displaying bizarre orbital behavior since launch, apparently firing thrusters that slowly raised its orbit. This encouraged the Russians to hope the probe was operating on autopilot and simply could not talk/listen to Earth.

10. There's a long way to go to rescue this probe, but against all despairing expectations, that first step has now been taking.

11. Maybe the probe's not such a turkey after all!