

## Oberg-Fobos-Nov14- Russians giving up hope

From: James E Oberg / Thursday, November 10, 2011 4:59 PM

0. Hope is nearly gone that the Russian probe will be rescued -- it seems its going to fall back to Earth with eleven tons of toxic chemicals inside. Today's earlier message is attached at end.

1. Russian spaceflight operators at Baykonur have just tried again -- and failed -- to get ANY signal out of their stranded Mars probe, 'Phobos-Grunt'.

2. Tracking sites operated by the European Space Agency also listened in, today, and heard nothing.

3. Russian space workers posting anonymously on several 'space blogs' in Moscow indicate that a sense of gloomy hopelessness has descended over the space team.

4. Information continues to come out about possible inadequate preparation and checking of a new flight computer never flown before. It was in command of the propulsion system, which never turned on Tuesday night, a few hours after launch from Baykonur.

5. Another astonishing design feature has also been confirmed. The emergency 'omni' antenna for the probe had been mounted on the aft end, which would be pointed back at Earth during the departure for Mars. But when the probe got too heavy for the propulsion system's fuel reserves, several years ago, a strap-on extra tank was added at the back end, blocking the antenna. That was accepted, apparently, because the tank was supposed to be jettisoned right after the first on-orbit boosting burn -- and then the antenna would be clear.

6. It is increasingly likely that probe is lost, and will fall to Earth randomly somewhere, in the next 2 or 3 months.

7. I've recomputed the fuel load and it comes to eleven tons of toxic chemicals -- hydrazine and nitrogen tetroxide. The latter chemical may freeze, raising the chance of reaching the ground intact.

8. One other piece of the probe is sure to survive -- the spare tire sized capsule intended for returning the soil samples the probe was named after. Upon hitting the atmosphere, g-sensors will activate its radio beacon, so searchers now will have a clue where all of the debris is falling near.

9. Real time discussions and inputs from around the world can be followed at <http://forum.nasaspaceflight.com/index.php?topic=15610.105>

10. The Chinese, who built a hitch-hiker probe to be released at Mars by the Russians, have said they will launch their next probe to Mars all by themselves, thank you very much.