January 15

Jim Oberg advises

- 1. With the crash of the Fobos-Grunt probe only hours away, I've attached several websites that are providing both official and unofficial updates, see para 6.
- 2. Consensus is for hitting the atmosphere about 1 PM EST, plus minus an hour or so. Some experts expect it to last an hour or two later.
- 3. It may take hours more to confirm it's no longer in orbit, and to collect eyewitness reports [and videos], AND to filter out pranks and misinterpretations.
- 4. Maps of the ground track in danger are available in the list of websites. North America is NOT in any of them -- we're clear.
- 5. Yesterday afternoon's advisory attached at end.
- 6. Here are the sites offering best insights, which I will be monitoring.

Private space discussion thread, very well-informed contributors input~2 // jan15/1204

http://forum.nasaspaceflight.com/index.php?topic=27593.new Latest USSTRATCOM predicted interval: 1611 to 1835 UTC

http://www.spaceflight101.com/phobos-grunt-re-entry-information.html January 15, 2012 - 13:30 UTC:

Current Orbit: 123x140km Inclination: 51.417° Period: 87.2 min

Re-Entry Predictions:

Spaceflight101: January 15, 2012 - 17:54 UTC +/- 60 Minutes USSTRATCOM: January 15, 2012 - 16:11 to 18:35 UTC Harro Zimmer: January 15, 2012 - 18:02 UTC +/- 24 Minutes Ted Molczan #1: January 15, 2012 - 16:37 UTC +/- 90 Minutes Ted Molczan #2: January 15, 2012 - 20:07 +/- 129 Minutes Aerospace Corp.: January 15, 2012 - 19:21 UTC +/- 03 Hours Roscosmos: January 15, 2012 - 18:53 UTC +/- 130 Minutes

See also http://www.spaceflight101.com/phobos-grunt-entry-blog.html

Зомби. Просто Зомби Янв 15, 2012 16:57 [In Russian]

http://www.novosti-kosmonavtiki.ru/phpBB2/viewtopic.php?t=10631&postdays=0&postorder=asc&start=12945&sid=16fb344924f083ffd2a9a4fdb8fb6427

Россия 24. Падение обломков Фобос-Грунт ожидается после 20:30

http://celestrak.com/events/reentry/phobos-grunt.asp

Latest PHOBOS-GRUNT Reentry Prediction

Updated 2012 Jan 15 11:00:34 UTC

Using the latest <u>TLE data for PHOBOS-GRUNT</u>, together with the Lifetime tool in <u>STK</u>, the current estimated reentry date/time is now 2012 Jan 17 16:05:35 UTC.

The latest decay prediction from USSTRATCOM (available in the <u>Current Decay Predictions (From TIP Messages)</u> section of the Space Track web site) shows an estimated reentry date/time of N/A (no estimate is currently available). NOTE: It appears that USSTRATCOM will not be issuing any specific reentry predictions for this event, choosing instead to only issue a reentry time span—unlike any other reentry prediction currently or previously issued on Space Track.

MSNBC discussion:

http://technology-science.newsvine.com/_news/2012/01/14/10158081-experts-count-down-to-doomed-russian-probes-last-hours?pc=25&sp=25#discussion_nav

http://www.spaceweather.com/

PHOBOS-GRUNT RE-ENTRY TODAY: Russia's malfunctioning Mars probe, Phobos-Grunt, will re-enter the atmosphere today, creating a brilliant fireball over a still-unknown part of Earth. Best estimates [http://satobs.org/seesat_ref/phsrm/Fobos-Grunt_decay_estimates_v10.pdf] of the re-entry time range from 1700 UT to 2200 UT on Jan. 15th. The Aerospace Corporation has published some possible ground tracks [http://reentrynews.aero.org/2011065a.html].