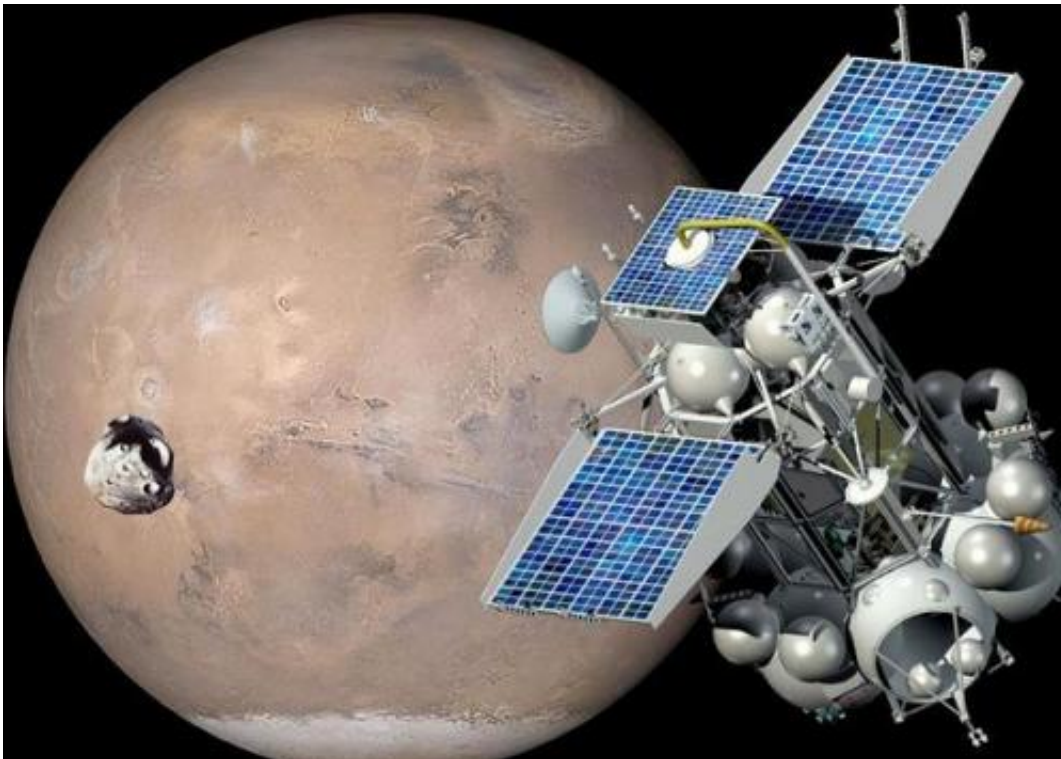


Awesome action animation depicts Russia's bold robot retriever to Mars moon Phobos

November 8 2011, By Ken Kremer

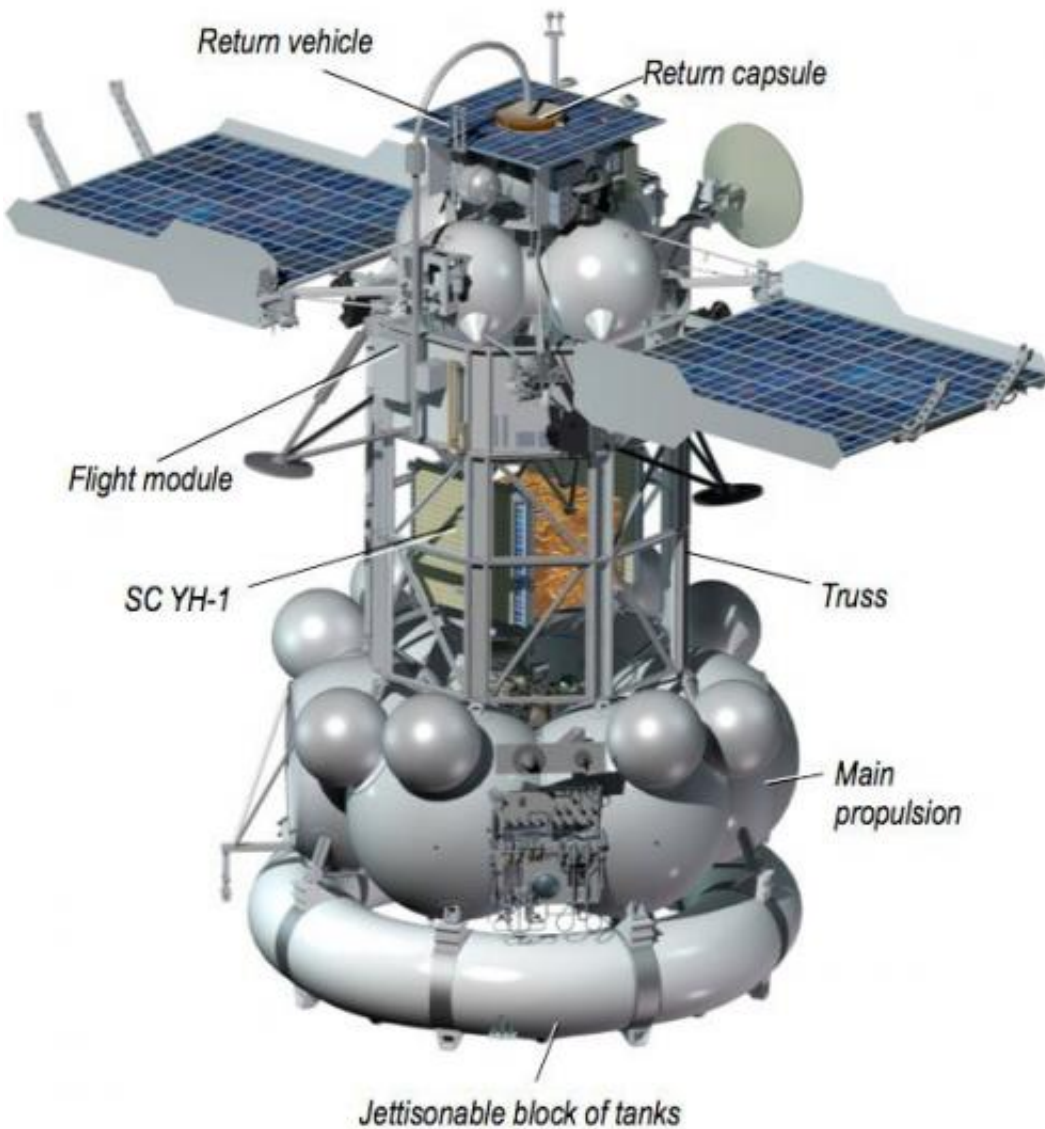


Russia's Phobos-Grunt interplanetary spacecraft is scheduled to blast off on November 9, 2011 from the Baikonur Cosmodrome on a bold roundtrip mission to land on Phobos surface and ship the first ever soil samples back to Earth by 2014. Credit Roscosmos.

In less than 48 hours, Russia's bold Phobos-Grunt mechanized probe will embark on a historic flight to haul humanities first ever soil samples back from the tiny Martian moon Phobos. Liftoff from the Baikonur

Cosmodrome remains on target for November 9 (Nov 8 US EDT).

For an exquisite view of every step of this first-of-its-kind robot retriever, watch this spectacular action packed animation (below) outlining the entire 3 year round trip voyage. The simulation was produced by Roscosmos, Russia's Federal Space Agency and the famous IKI Space Research Institute. It's set to cool music – so don't worry, you don't need to understand Russian.



Labeled Schematic of Phobos-Grunt and Yinghou-1 (YH-1) orbiter. Credit: Roskosmos

Another video below shows the arrival and uncrating of the actual Phobos-Grunt spacecraft at Baikonur in October 2011.

The highly detailed animation begins with the blastoff of the Zenit booster rocket and swiftly progresses through Earth orbit departure, Phobos-Grunt [Mars](#) orbit insertion, deployment of the piggybacked Yinghuo-1 (YH-1) mini satellite from China, Phobos-Grunt scientific reconnaissance of Phobos and search for a safe landing site, radar guided propulsive landing, robotic arm manipulation and soil sample collection and analysis, sample transfer to the Earth return capsule and departure, plummeting through Earth's atmosphere and Russian helicopter retrieval of the precious cargo carrier.

Source: [Universe Today](#)

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