

# Rosetta Update



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# ROSETTA STATUS

- Sleeping. Spacecraft has been in hibernation since June 2011. No contact.
- Wake-up will be in January 2014.
- Series of burns planned to accomplish rendezvous:

Date	Maneuver (m/s)	Nucleus distance (km)	AU
May 21, 2014	321.8	938,000	4.00
June 4, 2014	263.9	389,000	3.93
June 18, 2014	88.9	163,000	3.86
July 2, 2014	66.1	44,000	3.79
July 9, 2014	24.6	19,000	3.75
July 16, 2014	10.5	8,043	3.72
July 23, 2014	5.0	3,459	3.68
August 4, 2014	2.0	400	3.61
August 7, 2014	1.0	100	3.59

- Last maneuver puts spacecraft in orbit around nucleus.

# Observation Phases

<b>Mission Phase</b>	<b>Dates (2014)</b>	<b>Altitude (km)</b>	<b>AU</b>
Initial characterization	8/7-15	60-70	3.59
Mapping	8/15-23	20-40	3.55
Gravity	8/23-9/11	20	3.50
Close observations	9/11-11/18	5-10	3.39
Lander	11/11	5-0	3.00



# POST-LANDER MISSION

- Spacecraft will continue to orbit nucleus until activity drives it away.
- Spacecraft will then make slow flybys through the coma to determine composition, image jet sources, look for changes on the surface, etc.
- Perihelion is August 13, 2015, 1.243 AU
- Nominal mission ends 3 months past perihelion, ~ 1.8 AU
- Comet is poorly placed for Earth-based observations in 2015: too close to the Sun.
- Extended mission possible but propulsion system has a leak that may shorten spacecraft lifetime.
- 23 Lutetia analysis papers recently published in special issue of Planetary and Space Science (June, 2012).