

By ~~Michael~~ Gache, Science News Editor

## [NASA Considers Landing a Manned Mission on Near Asteroid](#)

### *The Constellation Program expands to new horizons*

2000SG344 is a Near Earth Object only 40 meters in diameter which passes periodically through the vicinity of our planet at speeds as high as 44,8 kilometers per hour. Astronomers estimate that in the next six decades or so, the asteroid will approach Earth considerably but it will not intersect the orbit of the planet. If it were to do so, the energy released during the impact would be equivalent to about 83 times that released by the nuclear bomb upon the city of Hiroshima. Yesterday, NASA revealed that it was seriously considering landing a man on the rock to study it in anticipation for possible future asteroid impacts. The plan is to send an astronaut ahead of 2000SG344 with the help of a spacecraft, land on it, piggyback it until in vicinity of the planet and return back home. The mission would span over a period of three months. Amongst other missions, NASA's Constellation Program plans to send a manned mission to the Moon by 2020 and possibly to Mars. But first, there is much to learn about the psychological and physical effects of long space travel, such as those determined by prolonged exposure to radiation and microgravity, plus all the problems related to devices converting ice into water, oxygen and hydrogen. NASA's orbiters are expected to exit service by 2010 and replaced by 2015 with the Orion capsule and the Ares launchers. According to NASA's, the same Orion capsule would be used to land on the surface of 2000SG344, and remain there as long as two weeks. This mission would give astronomers the possibility to learn more about the history of the solar system. "An asteroid will one day be on a collision course with Earth. Doesn't it make sense, after going to the moon, to start learning more about them? Our study shows it makes perfect sense to do this soon after going back to the Moon," said Johnson Space Center report co-author, Rob Landis. Although there is no change of 2000SG344 colliding with our planet in the near future, it will come pretty close to our planet nonetheless. The capsule would have to be specially fitted with anchors, since the gravitational field of the rock is close to none, which also disables the possibility of any spacewalks. "On some of these asteroid, you could jump up and go into orbit, or maybe even leave for good," said Landis. "Near Earth objects are potential collision hazard to Earth and it may one day be necessary to deflect an asteroid from a collision course with Earth. Having the capability in you back pocket to deflect an asteroid might be a good insurance policy for the future, and for that, you want to know what they are made of, how to rendezvous with them, and whether you risk getting hit by debris if you fire something at it," said Birkbeck College planetary scientist, Ian Crawford.