

Committee on the Peaceful Uses of Outer Space

Scientific and Technical Subcommittee

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Statement of Italy on item 12. Near-Earth Objects (NEOs)

Mr. Chair, distinguished delegates,

Italy has a long-standing tradition in the observations and investigations of Near-Earth Objects (NEOs), paying particular attention to monitor hazardous asteroids that might impact our planet.

Allow me to present the latest activities and initiatives that see the involvement of Italy and its experts.

was launched on 24 November 2021 onboard NASA's first planetary defence mission called Double Asteroid Redirection Test, DART. The mission has the objective to test and validate a method to protect the Earth in case of an asteroid threat. DART is expected to impact the secondary asteroid Dimorphos of the double system Didymos in early October 2022.

The role of the Italian LICIACube nanosatellite in the DART mission will be to capture unique images of the effects of the impact, in terms of the resultant plume of ejecta from the crater, possibly the impact crater itself and the, as yet unseen, backside hemispheres of both Didymos and Dimorphos. In order to do this, LICIACube is equipped with two cameras, as main instruments, and with high-performances navigation capabilities. It will separate from DART about 10 days before its impact on the asteroid and will fly-b A nanosatellite called LICIACube, which stands for "Light Italian Cubesat for Imaging of Asteroids", y the region.

After Italy contributing to many international deep-space missions, LICIACube will be the first Italian spacecraft operating in Deep Space and we hope that this will pave the way to future similar initiatives for space exploration.

Also concerning Near Earth Objects, the experts of the Italian Space Agency and Politecnico of Milano members of the Space Mission Planning Advisory Group (SMPAG) recently launched an initiative concerning a first exercise of the SMPAG meant to simulate a case of hypothetical threat caused by an asteroid. In particular, the exercise will simulate an inter-agency procedure to organise a coordinated response to an invented, albeit realistic scenario of impact threat.

The primary objective will be to define the tasks required for a SMPAG coordinated response; which entity or entities would be responsible for these tasks; and the internal procedures of each SMPAG member to be proposed to the SMPAG as a response to the threat.

A secondary possible objective would be to simulate and perform the actual tasks, or part of them, for the selected threat scenario. This secondary objective can be done collaboratively between contributing SMPAG members.

The exercise will be run in 2022 with delegations and space agencies involved.

Italy would like to invite those delegations that wish to have more details on this initiative to contact our national representatives within the SMPAG group.

Mr. Chair, distinguished delegates,

To conclude, allow me to recall that experts from the Italian Space Agency and the Italian space community continue to actively participate also in the works of the International Asteroid Warning Network (IAWN).

I thank you very much for your kind attention.