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**Near-Earth Object (NEO) Discovery**

**OBSERVATIONAL ACTIVITIES AND KEY RESULTS FROM ESA'S PLANETARY  
DEFENCE OFFICE**

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**ABSTRACT**

The activities of ESA's Planetary Defence Office (PDO) are organized in three "pillars". The first one, the so-called "Observational Pillar", covers the capabilities and resources the Programme devotes to NEO survey and follow-up activities.

During the upcoming years, the PDO will enter the NEO surveying scene by commissioning and operating a meter-class instrument entirely dedicated to NEO discovery, the so-called Flyeye telescope. At the same time, two smaller instruments, known as Test-Bed Telescopes (TBTs) and already installed in Spain and Chile, will focus on low-elongation observations in both the Northern and the Southern hemisphere.

ESA's PDO also plans to continue its follow-up activities, thanks to its well-established global network of telescopes. These facilities, available to the PDO team through contracts or agreements, are capable of reacting to various NEO follow-up needs, offering both rapid-response facilities for targets like imminent impactors, and deep follow-up capabilities for specific observations of high-priority risk list objects down to magnitude ~27.

Our team combines these observational resources with a specific effort to test innovative observational techniques, such as negative recoveries and synthetic

tracking, and with an active participation in international campaigns such as those organized by IAWN and other entities. The goal is to ensure the capability to extract high-precision astrometry (and meaningful astrometric uncertainties) under the challenging observing conditions that are often required for NEO observations.

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**Comments:**

*Since this contribution includes a general introduction to ESA's PDO observational activities, it might be more appropriate to present as an oral talk.*

*Regarding the most appropriate topic, the contribution would focus on both NEO discovery and astrometric/dynamical follow-up. If the latter is considered "characterization", then the "NEO Characterization" session may also be appropriate if needed.*