



August 17, 2018

Attention all NSS Political Action Network Members:

We have what may be one final opportunity to save NEOCAM, a foundational space craft that may save the lives of all of us. The Near-Earth Object Camera (NEOCAM) is a space-based infrared telescope designed to survey the solar system for potentially hazardous asteroids.

This alert is to all PAN members in all states and districts to call/write your Senators and Representative to support \$60M in FY2019 to move NEOCAM to Phase B, enabling an inexpensive shared 2024 launch. Currently the House has allocated only \$22M, and the Senate nothing.

Thanks for your support,

Dale Skran

NSS Executive Vice President

If you don't know your representative, you can find out here:

<http://space.nss.org/contacting-your-elected-representatives-the-basics/>

Here are some points you may wish to mention:

- In 2013 an asteroid struck near Chelyabinsk, Russia damaging buildings, collapsing a factory roof, shattering windows, and sending hundreds of people to the hospital
- About a million asteroids are larger than the Chelyabinsk object (~60 ft) cross Earth's orbit. If we do nothing, roughly 20,000 of these objects are expected to eventually hit Earth
 - Potential effects range from city or regional devastation to mass extinction
 - The next major impact could be decades in the future or just a few weeks from now
- Humanity has the technical capacity to discover and track any object that would cause significant damage on Earth for modest cost
- A simple truth: There will be no space development or settlement if our civilization lies in ruin due to an unanticipated impact.
- Detection of a potentially hazard is the essential first step in planetary defense
- Current NASA and international efforts to find dangerous Near Earth Objects (NEOs) using only ground based instruments have inherent limitations:
 - Cannot see in direction of Sun, near the Moon, during daylight, or through clouds
 - The best frequency for detection (infra-red) is absorbed by the atmosphere
- An excellent solution is JPL's NEOCam space-based infra-red 0.5 meter telescope
 - Rated #3 of 28 proposals during the recent Discovery mission selection
 - JPL NEOCam will be located at the Earth-Sun L1 point, allowing it to detect football-field sized objects near Earth, including potential impactors
 - Total procurement costs, including launch, is \$568M spread over six years
- Objective is to find 2/3 of all objects larger than 140 meters in five years
 - Goal is to discover >90% of 140 meter and larger asteroids within 10 years