2021 PDC Exercise Day 2: May 2, 2021

New Data Confirm Asteroid 2021 PDC Will Impact Within Europe or Northern Africa in Six Months

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2021 PDC Impact Confirmed

- Newly uncovered observations of 2021 PDC have established that the asteroid will impact in Europe or northern Africa on October 20, 2021 with 100% certainty.

- The new data are precovery observations of 2021 PDC found in archival images taken 7 years ago by the Pan-STARRS asteroid survey in Hawaii.
  - Noticing that 2021 PDC must have made a distant passage by Earth in 2014, observers predicted the region of sky where the asteroid should have been back then, and a series of archival images was identified for searching. The asteroid was too faint to be discovered, but shifting and stacking the of images resulted in detections.

- Lengthened to 7 years, the new data arc produces a much more accurate estimate of the asteroid orbit, leading to a much smaller predicted uncertainty region on October 20. The entire uncertainty region now intersects the Earth.

- The general region where 2021 PDC will impact can now be predicted.

- The asteroid’s size and the impact effects, however, remain highly uncertain.

- For more info: [https://cneos.jpl.nasa.gov/pd/cs/pdc21/day2.html](https://cneos.jpl.nasa.gov/pd/cs/pdc21/day2.html)
Predicted Impact Location as of May 2
Using the 2014 precovery observations

Impact date: Oct. 20, 2021

Probabilities of Impact inside the shaded regions:

- Dark red: 40%
- Mid red: 87%
- Light red: 99%

EXERCISE ONLY!!
CNEOS NEO Deflection App (NDA)
https://cneos.jpl.nasa.gov/nda/nda.html

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