

**EXERCISE**

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**NOT A REAL WORLD EVENT** *This is part of an asteroid threat exercise conducted during the 2015 IAA Planetary Defense Conference.*

## **Small Fragment of Asteroid 2015 PDC Will Impact Within Bangladesh, India or Myanmar**

Paul W. Chodas (International Asteroid Warning Network/JPL)

Press Conference, February 4, 2022

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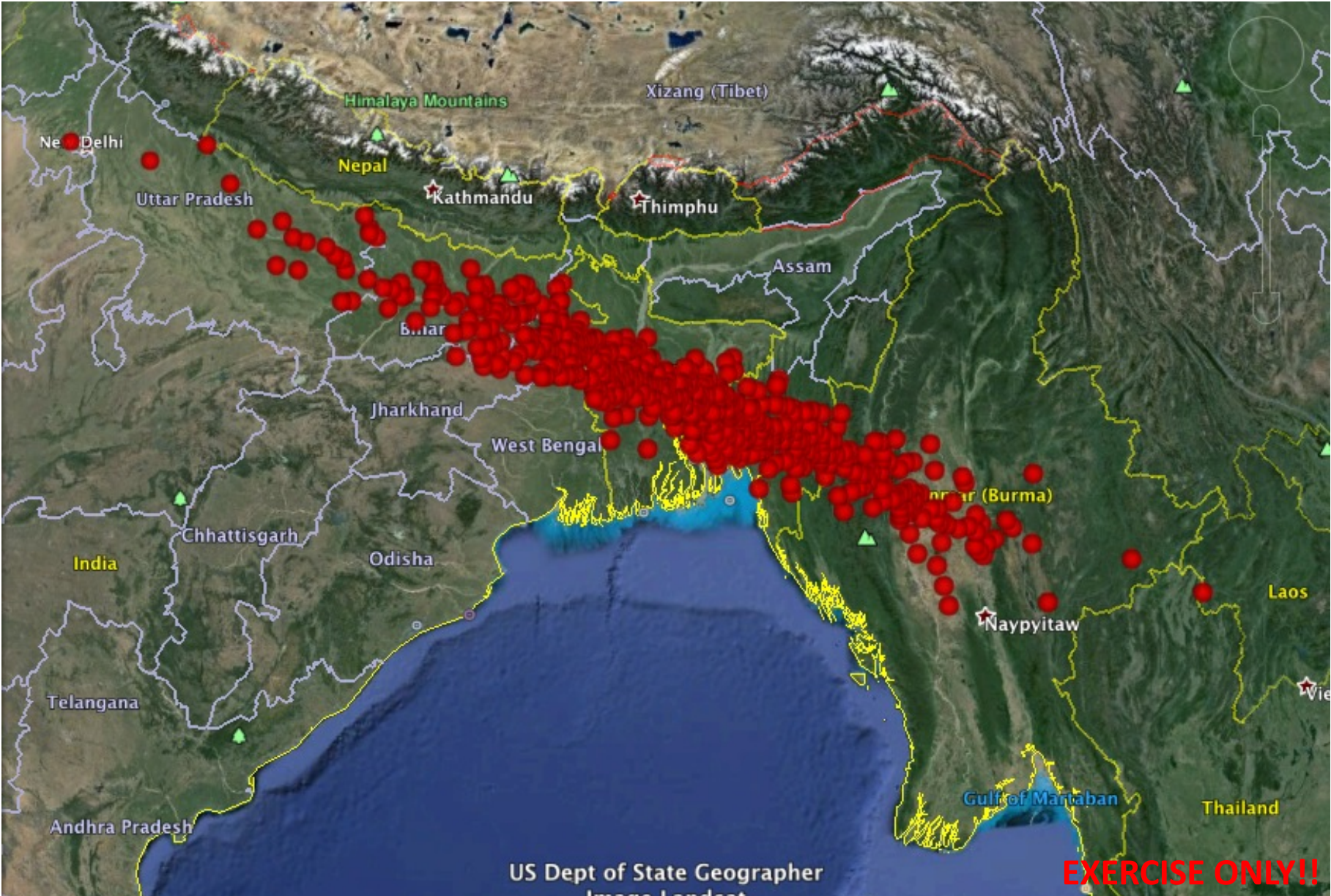
# Asteroid Fragment Will Impact in Sept.

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- ▶ Asteroid 2015 PDC has emerged from behind the Sun, and based on the new tracking observations, IAWN has announced that the small fragment which broke off the asteroid will impact the Earth in the region of India, Bangladesh or Myanmar on September 3, 2022 at 03:50 UTC
- ▶ The asteroid is still very distant, and the fragment size remains uncertain; scientists put an upper limit on the size at 100 meters, based on the best images from the observer spacecraft
- ▶ With a predicted entry speed of 16 km/s, the worst-case 100-m fragment could release up to 50 Megatons of energy upon impact
- ▶ For more info: <http://neo.jpl.nasa.gov/pdc15/day5-2.html>

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# Impact Footprint for 2015 PDC Fragment



# Prospects for More Accurate Predictions

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- ▶ 2015 PDC will be observable for the next six months; the orbit accuracy will dramatically improve and the impact footprint will dramatically shrink in size
- ▶ The impact location will be known to within 100 km a full 4 months before impact, and to within about 50 km one month before impact
- ▶ The asteroid will not be observable optically for the final month before impact when it is located in the daytime sky
- ▶ The asteroid will not be observable from the Arecibo radar facility because it's never in the observing window
- ▶ But, radar should be possible from Goldstone in the last 7 days, constraining the impact location to within 15 km

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