Characterization Summary & Updates

- Assessment date: 30 June 2021
- Impact date: 20 October 2021 (<4 mo.)
- Impact probability: 100%
- Diameter: mean 136 m, range ~35–500 m
- Energy: mean 136 Mt, range 0.7–3700 Mt
- Entry: 15.2–15.3 km/s, 50–55° entry angle
- Properties: unknown type or physical properties

Hazard Summary

- Affected Population: 0–6.6M, average 580k, most likely several hundreds of thousands
- Primary hazard is airburst or impact causing blast overpressure and possibly thermal damage
- Damage radii: 0–250 km, average ~80 km
- Damage levels: minor structural damage and burns to potentially unsurvivable levels

Damage Swath

Full range of regions potentially at risk to ground damage, given all potential impact locations and largest damage.

Sample average damage sizes over largest cities

Affected Population Risks

- Probability of greater than 0.4% population risk: ~21%
- Probability of greater than 0.1% population risk: ~53%
- Probability of greater than 2.4% population risk: ~23%