

MeteorShield Sarawak - Impact Report

Asteroid Information

Asteroid: (2020 GA2)

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1. AI Summary

An asteroid, (2020 GA2), threatens Kuching with an impact energy of $1.59\text{e}+19$ J, creating a 25.1 km blast radius. A Kinetic Impactor is the proposed mitigation. Without this intervention, Kuching would face catastrophic destruction across the entire 25.1 km blast zone, resulting in immense loss of life and infrastructure. With the Kinetic Impactor successfully diverting the asteroid, the entire devastating impact is avoided, keeping Kuching safe.

2. Preparedness Plan

An asteroid impact near Kuching with a 25.1 km blast radius implies complete devastation within that zone, and significant damage, shockwaves, and debris much further out. The plan needs to focus on immediate survival, evacuation, and mitigating secondary effects.

Here's a short emergency preparedness plan:

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- *Asteroid Impact Emergency Preparedness Plan: Sarawak (Kuching Vicinity)**

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This plan assumes a credible warning period allows for some preparation.

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1. Local Authorities

1. ****Establish Command & Evacuation Zones:**** Immediately define and widely communicate a mandatory evacuation zone (e.g., up to 50-75 km radius from predicted impact point, depending on population density) and a secondary "shelter-in-place" zone for areas further out. Activate a central emergency operations command (EOC) in a secure, pre-identified location far from the impact zone.

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2. Public Awareness

1. ****Immediate Action: "Drop, Cover, and Hold On" & Evacuation Protocols:**** Conduct widespread, urgent broadcasts (TV, radio, SMS, social media, community announcements) instructing those within the extended danger zone to immediately evacuate using pre-identified routes. For those *just outside* the immediate blast zone, advise "Drop, Cover, and Hold On" to protect from shockwaves and falling debris, followed by seeking shelter in sturdy buildings or heading to designated safe zones.

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3. Environmental Protection

1. ****Containment & Monitoring of Contaminants:**** Immediately after the impact, begin monitoring air quality for ash, dust, and potential toxic aerosols. Establish systems to monitor major water sources (rivers, reservoirs) for contamination from debris, heavy metals, or chemical spills resulting from the blast. Implement measures to prevent widespread toxic runoff into sensitive ecosystems and water supplies.

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