

**Testimony Regarding Resolution No. 7-38 (COR)**  
**Public Hearing: February 19, 2025**  
**Guam Congress Building**  
**Submitted by: Charles Esteves, Administrator, Office of Civil Defense**

*Hafa Adai* Chairperson and Members of *I Mina'trentai Ocho Na Liheslaturan Guåhan*:

Thank you for the opportunity to submit testimony regarding Resolution No. 7-38 (COR), which urges the United States Federal Government to fully fund the construction and maintenance of air raid shelters and other civil defense infrastructure on Guam in light of heightened geopolitical tensions and the threat of regional conflict.

**Background**

**Civil Defense in the United States**

The concept of civil defense in the United States dates back to the early 20th century, gaining prominence during World War II and the Cold War. The Federal Civil Defense Administration, established in 1950, played a key role in preparing civilians for potential attacks, including nuclear strikes. Programs emphasized preparedness through drills, public education campaigns, and infrastructure development. Civil defense evolved into broader emergency management functions under agencies such as the Federal Emergency Management Agency (FEMA) in later decades. Today, civil defense includes planning for natural disasters, terrorism, and other national security threats, integrating federal and local resources.

Civil defense on Guam has its roots in the island's strategic military importance during World War II and the subsequent Cold War. Following Guam's liberation in 1944, efforts to establish a structured emergency response system were influenced by U.S. military presence and federal civil defense initiatives. In 1951, Guam's first civil defense organization was established under the Office of the Governor, primarily focused on wartime preparedness and disaster response. Over the decades, civil defense responsibilities expanded to address typhoons, earthquakes, and other natural hazards common to the region. Today, the Guam Office of Civil Defense plays a central role in disaster preparedness, response, recovery, and mitigation, working alongside federal agencies like FEMA and local stakeholders to safeguard the island's residents and infrastructure.

**Air Raid Shelters**

Air raid shelters have historically been used to protect civilians from aerial bombardments. During World War II, extensive shelter networks were constructed in Europe and Asia. In the United States, the Cold War prompted discussions on fallout shelters, particularly to mitigate nuclear threats. Many of these shelters were built in public spaces, schools, and government buildings, though large-scale implementation varied across different regions. Modern air raid shelters are less common in the United States today, as defense strategies have focused on early warning systems and missile deterrence. However, some nations, particularly those with ongoing security threats, continue to maintain and update such infrastructure.

## **Other Civil Defense Infrastructure**

Beyond air raid shelters, civil defense infrastructure encompasses a range of facilities and systems designed to protect the population during emergencies. These include early warning systems, reinforced emergency operation centers, disaster relief supply depots, and critical utility hardening projects. For example, the U.S. maintains the Integrated Public Alert and Warning System (IPAWS) to provide real-time alerts, while FEMA's emergency response infrastructure includes supply caches and mobile command centers. The modernization of such infrastructure remains an ongoing consideration in national security and emergency preparedness planning.

### **Context and Considerations**

It is common knowledge that Guam is uniquely positioned in the Indo-Pacific region. It is widely known that we house key U.S. military installations, such as the Andersen Air Force Base and Naval Base Guam. As global security dynamics evolve, the necessity for infrastructure that enhances public safety and resilience is an important consideration. The resolution raises several valid points regarding Guam's strategic importance and historical vulnerabilities. It is well-documented that the island remains within the range of potential adversaries' strike capabilities, and the Department of Defense has acknowledged these risks in various reports. At the same time, Guam's history, particularly its experience during World War II, underscores the importance of preparedness in safeguarding the civilian population.

### **Potential Benefits and Challenges**

While the request for federal funding for air raid shelters and civil defense infrastructure aligns with broader national security and humanitarian concerns, several key factors warrant further discussion:

#### **1. Scope and Feasibility**

- Determining the appropriate number and locations of shelters is critical to ensure accessibility for Guam's entire population.
- The construction and maintenance of such infrastructure require careful planning, cost analysis, and a long-term commitment to sustainability.
  - Engineering considerations include designing shelters to withstand threats like missile strikes, blast waves, and radiation exposure.
    - Air raid shelters alone are not enough to withstand a direct nuclear missile strike. Deep underground bunkers with reinforced concrete and steel structures provide the best protection against nuclear warheads. Shockwave-resistant doors, air filtration systems, and electromagnetic pulse shielding are necessary for survival against nuclear detonation.
    - Modern air raid shelters can protect against conventional cruise missile attacks, especially if built underground or reinforced with blast-resistant materials. Shelters that absorb shockwaves and fireball effects reduce casualties from high-explosive warheads.
    - Well-built air raid shelters protect against fragmentation warheads by shielding occupants from shrapnel, blast pressure, and debris.
    - Proper ventilation and exit pathways prevent occupants from being trapped by secondary collapses.

- Maintenance costs and operational readiness must be factored in, as long-term sustainability depends on continuous funding and periodic upgrades.
- Given an estimated time of flight (10 to 30 minutes depending on launch location and missile type) from nation-state threats in the Pacific—also assuming a land-based launch rather than sea-based—plus the time required for the Department of Defense to notify the territory and the time needed to inform the public, it is crucial to assess whether the population can reach shelters in time.
- Lessons learned from other regions with similar threats, such as Japan and South Korea, should be examined to optimize Guam’s civil defense planning.

## **2. Integration with Existing Defense Measures**

- Guam already benefits from strategic defense initiatives, including missile defense systems and early warning capabilities.
  - Improvements should include faster detection-to-alert processing, expanded regional coverage, and redundant communication methods such as satellite, mobile networks, and siren systems to ensure accessibility in all areas.
- Enhancing the FEMA IPAWS is critical to ensuring timely and effective public notifications.
  - Increasing community engagement and preparedness training through IPAWS can enhance public response times and reduce confusion during a crisis.
- Expanding and enhancing the territory’s All-Hazards Alert Warning System (AHAWS) should be a priority. This includes increased siren coverage, real-time activation capabilities, and integration with other early warning systems to maximize effectiveness.
- Coordination between local emergency management agencies and military command structures should be improved to minimize notification delays and synchronize defensive actions.
- Investing in hardened communication hubs and secure emergency broadcast capabilities will prevent disruptions due to cyber or kinetic attacks.

## **3. Federal and Local Responsibility**

- The resolution calls for full federal funding, which raises questions about the role of local government and private sector contributions.
- Will the federal government fund, build, and turn over shelters to the territory, or will they fund and require the territory to build them?
- Who will be responsible for these shelters' operation, management, and maintenance? Will it fall under the Government of Guam or require federal oversight?
- Will these shelters be open 24/7, or will access be restricted based on threat levels or disaster declarations?
- How will ongoing maintenance, staffing, and operational costs be funded in the long term?
- Should local businesses or private entities be involved in managing or maintaining portions of the infrastructure?

#### **4. Impact on Civil and Military Coordination:**

- Developing new infrastructure of this nature necessitates closer coordination across the whole of government and community.
- Clear roles and responsibilities must be established to prevent duplication of efforts and ensure efficient resource allocation.
- Joint training exercises should be conducted regularly between military, Federal, and territory emergency response teams to enhance interoperability.
- Real-time intelligence sharing between the Department of Defense and our local emergency management partners can help improve situational awareness and response times.
- The establishment of a centralized command and control system that integrates military and civilian emergency operations could improve coordinated response efforts; formation of a Joint Interagency Coordination Group (JIACG)
- Pre-established protocols for shelter activation, public notification, and crisis communication should be developed and tested to ensure seamless execution during an emergency.
- Funding considerations should account for long-term sustainment of coordination efforts, including staff training, technology upgrades, and communication infrastructure improvements.
- Developing new infrastructure of this nature could necessitate closer coordination between civilian agencies, emergency management authorities, and military leadership.
- Exploring a comprehensive emergency preparedness strategy that incorporates new construction and enhancements to existing facilities may be beneficial.

#### ***Public Awareness of Guam's Infrastructure as Natural Shelters***

The government must raise public awareness that most of Guam's buildings are concrete, making them naturally resilient shelters in a ballistic missile attack. Unlike many regions that rely on specifically designated shelters, Guam's infrastructure significantly protects against blast waves and debris. Educational campaigns should reinforce that staying inside sturdy concrete structures can dramatically increase survivability, reducing panic and improving emergency response effectiveness.

#### ***Acknowledging and Preparing for Casualties in the Event of a Missile Strike***

Ensuring the public understands the reality of a potential missile strike is crucial. While defensive measures such as missile interception systems are in place, no system is infallible, and a successful strike could lead to casualties. We must openly communicate that Guam's emergency response plans include medical triage, casualty care, and mass evacuation strategies. Preparation ensures that civilians are mentally and physically prepared, reinforcing the importance of sheltering, first aid training, and emergency supply stockpiling.

#### ***Strengthening Interagency Training and Joint Exercises***

Guam must conduct frequent joint exercises between military personnel, first responders, and civilian agencies to improve response efficiency. Drills should simulate ballistic missile attacks, cyberattacks, and hybrid warfare scenarios, allowing agencies to refine coordination efforts and response strategies. Including regional partners and federal agencies in these exercises would enhance interoperability and readiness.

### ***Collaborative Approach for Sustainable Implementation***

While full federal funding for constructing and maintaining air raid shelters and civil defense infrastructure would provide the most direct means of addressing these concerns, it is essential to consider alternative funding and implementation strategies should full federal support not be available. To ensure sustainable implementation, a collaborative approach involving federal, territorial, and potentially private sector contributions could be explored. Such an approach could leverage federal resources for initial construction while allowing for local oversight and maintenance.

The Government of Guam could participate in operational planning, public awareness campaigns, and ongoing facility management, ensuring that shelters and other civil defense infrastructure remain functional and accessible. Additionally, private sector involvement—particularly in construction, engineering, and maintenance—could supplement federal and territorial efforts by incorporating industry expertise and innovation.

Exploring a shared responsibility model could provide a practical pathway to achieving long-term resilience while balancing fiscal constraints. This would align with broader emergency management practices, where multiple stakeholders contribute to preparedness and response capabilities. By fostering collaboration across different government and private sector levels, we can work toward a robust and sustainable civil defense strategy that enhances public safety and resilience.

### **Conclusion**

The security and well-being of Guam's residents are paramount concerns, and any initiatives to enhance public safety deserve a thorough evaluation. Resolution No. 7-38 (COR) brings attention to a critical discussion regarding Guam's preparedness in times of crisis.

My testimony highlights the issue's complexity and the various elements that policymakers, defense officials, and community stakeholders must consider. A balanced approach that carefully evaluates feasibility, sustainability, and strategic alignment with broader defense and emergency management frameworks would best serve Guam's long-term interests.

Thank you for your time and consideration.

Respectfully,



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