Hypothesis

#	Persona	Problem	Cause	Motivation	Hypothesis	Proposed Solution
1	Urban resident	Feels overwhelmed by frequent alerts	Alerts cover broad regions instead of more narrow locations.	Wants to stay informed about their location danger	Users experience alert fatigue due to frequent air alerts that don't pertain to their specific location.	Implement geolocation-based alerts that notify only users in the affected area.
1	Urban resident	Mutes alert notifications	Frequent and repetitive alarms	Wants to stay informed about their location danger	Constant unjustified alerts cause users to mute notifications, increasing their risk.	Implement an alerting system that changes the alarm frequently, so the fatigue will be not that severe.
1	Urban resident	Struggles to differentiate between low and high-risk alerts	All alerts use the same tone and visual	Wants to understand the threat severity	Users are unable to differentiate between low and high-risk alerts.	Develop a color-coded or tiered alert system that indicates the severity of the threat.
2	Sensitive user	Finds the tone of alerts stressful and jarring	Current alert sounds are too harsh	Wants to understand the alert situation in their location	Users receive more anxiety with stressful or jarring alerts sounds.	Allow users to choose from a range of less stressful alert tones designed for urgency but minimal anxiety.
2	Urban resident	Lack of control over alert types	No option to filter alerts based on threat type	Wants to receive only relevant threat notifications	Users feel a lack of control over the type of alerts they receive.	Enable user-defined settings to choose the type of alerts (e.g., missile, drone, or artillery) they want to receive.
2	Sensitive user	Feels stressed due to unclear air alert ending notifications	Lack of a definitive message when the danger has passed	Wants confirmation that it's safe to resume activities	Lack of clarity on when the danger has passed causes confusion and unnecessary stress.	Add clear "All Clear" notifications with an explanation when the alert has ended.

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2	Sensitive user	Experiences disrupted sleep from nighttime alerts	Alerts wake them up (multiple times) at night	Wants a quieter but still effective nighttime alert system	Nighttime alerts disrupt sleep and negatively affect mental health.	Introduce a "night mode" that lowers the volume and changes the tone while ensuring the alert remains noticeable.
2	Sensitive user	Feels anxious due to lack of actionable advice	Apps do not analyse the alert process	Wants clear instructions for safety measures	Users experience anxiety from receiving alerts without actionable advice.	Include concise, actionable guidance with each alert, such as "Seek shelter now" or "Monitor updates."
3	Rural resident	Misses alerts due to poor mobile signals	Dependence on internet-based notifications	Needs an offline or alternative signal-based alert system	Users miss alerts due to poor mobile signals in certain areas.	Add offline capabilities using radio-based signals or downloadable updates for when users are out of network range.
3	User with disabilities	Finds alerts inaccessible	Alerts rely primarily on sound	Needs visual or vibration-based notifications	Users with disabilities (e.g., hearing or visual impairments) find alerts inaccessible.	Design alerts with multi-modal support, including vibration, flashing lights options
3	Sensitive user	Distrusts the accuracy of alerts	Lack of transparency in alert sources and criteria	Wants clear information on how alerts are determined	Users distrust alert accuracy due to a lack of transparency in the alerting system.	Display real-time data sources and criteria used to trigger alerts.
3	Sensitive user	Lacks information on alert severity	Alerts do not include threat intensity or affected areas	Wants detailed data to make informed decisions	Users have not enough data related to the alert severity and danger	Display more data related to the alert so the user will be more informed.
3	Urban residen	No post-alert analysis	No summary or review of past alerts	Seeks insights to improve future responses	Users want the post-alert analysis to improve their preparedness.	Provide a summary report after each alert with details about the threat, its resolution, and preparedness tips.