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While the US focus for the majority of the past two decades has been on combatting insurgency and promoting stability in Southwest Asia, strategic focus is beginning to shift toward concerns of conflict with a near-peer state. Such conflict brings with it the risk of ballistic missile attack on air bases. With 26 conflicts worldwide in the past 100 years including attacks on air bases, new doctrine and modeling capacity are needed to enable the Department of Defense to continue use of vulnerable bases during conflict involving ballistic missiles. Several models have been developed to date for Air Force strategic planning use, but these models have limited use on a tactical level or for civil engineer use. This thesis presents

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