IADS Scenario Design Document (Working Doc)

For the CMIS-IADS scenario, we will model a military base that hosts a SA-23 Battalion and a SA-17 Battery. The SA-23 Battalion and SA-17 Battery will provide 24-hour air defense coverage of the coastline along the base’s western boundary over a 3-day period. The Bn and Btry will receive early warning from a Nebo Radar, which will be emplaced on the eastern side of the base and will remain in place throughout. The Nebo Radar, SA-23 Bn and SA-17 Btry will follow different deployment patterns. Each is described below.

1. Nebo Radar
   1. Convoy to set up position will consist of Radar Vehicle and 1 support vehicle
   2. Setup for vehicles will be varied by distance from each other
   3. Nebo will stay in same position for the duration of the scenario
   4. Support vehicle will be relieved in place every 12 hours
   5. Vehicles will deploy and re-deploy from base
   6. Human entities from vehicles will circle around the radar position at a range of 50 m to model patrolling the area (When not patrolling, they will be in vehicles)
   7. Radars will be on once deployed in position
   8. 20 minutes required for set-up
   9. Can scan airspace at a range of 1120 miles (1800 km) and an altitude of 745 miles (1200 km)
   10. It is mobile and can be positioned in any direction
2. SA-23
   1. Convoy will consist of 3 support vehicles, 1 TELAR, 1 Heavy TEL, 1 C2 vehicle, 1 Fire Control Radar, and 1 Target Acquisition Radar
   2. Convoy will go to a different position for set-up every time they deploy
   3. Set-up will be on the eastern side of the base
   4. Units will be relieved every 4 hours
   5. Set-up at position will vary every time by parking pattern and distance from each other
   6. Vehicles will deploy and re-deploy from base
   7. 15 minutes required for set-up
   8. Human entities from vehicles will circle around the radar position at a range of 50 m to model patrolling the area (When not patrolling, they will be in vehicles)
3. SA-17
   1. Convoy will consist of 2 support vehicles, 1 TELAR, and 1 Fire Control Radar
   2. Convoy will go to a different position for set-up every time they deploy
   3. Set-up will be on the western side of the base
   4. Units will be relieved every 6 hours
   5. Set-up at position will vary every time by parking pattern and distance from each other
   6. Vehicles will deploy and re-deploy from base
   7. Human entities from vehicles will circle around the radar position at a range of 50 m to model patrolling the area (When not patrolling, they will be in vehicles)
   8. 15 minutes required for set-up

For the convoy movements, we will vary the speed of travel on the roads from 10-50 km/hr. If possible, we’ll also vary the distances between the vehicles. Randomly, some of the convoys will stop for a variable amount of time (~10-20 mins). This will delay the relief for the SA-23 Bn’s and SA-17 Btry’s.

Per the sponsor, they want to see deploy from base, move, hide (~10-20 min stop), deploy at site, operate (I still need to research radar emissions data for this), and pack-up at site (same duration as set-up) and return to garrison.

Location for Nebo

A picture containing green

Description automatically generated

Locations for SA-23

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Locations for SA-17

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