APPENDIX F

RADGUNS FUNCTIONAL AREA TEMPLATE (FAT)

RF Sensor

- **1.0 Target Characteristics**
  - 1.1 Flight Path
  - 1.2 Signature
    - 1.2.1 RCS
      - 1.2.1.1 Static
      - 1.2.1.2 Dynamic
    - 1.2.2 Fluctuations
  - 1.3 ECM
    - 1.3.1 Noise
      - 1.3.1.1 On-Board
      - 1.3.1.2 Off-Board
      - 1.3.1.3 Standoff
    - 1.3.2 Deception
      - 1.3.2.1 On-Board
      - 1.3.2.2 Off-board
      - 1.3.2.3 Standoff
- **2.0 Propagation**
  - 2.1 Masking
  - 2.2 Clutter
  - 2.3 Multipath/Diffraction
  - 2.4 Atmospheric Attenuation
- **3.0 Transmitter**
  - 3.1 Waveform Generator
- **4.0 Receiver**
  - 4.1 Thermal Noise
  - 4.2 AGC
  - 4.3 Detector
  - 4.4 Blanking
- **5.0 Antenna**
  - 5.1 Gain
  - 5.2 Scan
- **6.0 Signal Processing**
  - 6.1 Threshold
  - 6.2 Clutter Rejection
    - 6.2.1 MTI
    - 6.2.2 Doppler Filters
  - 6.3 Integration
  - 6.4 Pulse Compression
- **7.0 Target Tracking**
  - 7.1 Angle
  - 7.2 Range
  - 7.3 Doppler

AAA Gun System

- **8.0 Fire Control Computer**
  - 8.1 Aiming Solution
  - 8.2 Gun Movement
  - 8.3 Fire Enable/Disable
- **9.0 Guns/Ammunition**
  - 9.1 Fire Rate (Burst) Control
  - 9.2 Ballistics
- **10.0 End Game**
  - 10.1 Probability of Hit
  - 10.2 Probability of Kill

AAA System Operator

- **11.0 Radar Control**
  - 11.1 Search Modes
- **12.0 Reactions**
  - 12.1 Reacquisition
  - 12.2 Optical/Manual Tracking

Functional Area Template for *RADGUNS*