

# JTLS-2009-10414 Create Aircraft Target Class ROE For SAM Sites

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## 1.0 Summary of Model Change Request

Aircraft can currently be directed not to intercept certain types of aircraft based on the Aircraft Target Class (ATC) attribute. Provide the same capability for Surface-to-Air Missile (SAM) sites in which Rules Of Engagement (ROEs) to Fire or Not Fire can be set according to the same ATC attribute. For example, a SAM site could allow firing on Cruise Missiles or Theater Ballistic Missiles (ATC Missiles), or SU-27s (ATC Advanced Fighter), but hold fire on UAVs (ATC UAV) or Helicopters (ATC Rotary).

## 2.0 Design Summary

The design is fairly straight forward. Before allowing a SAM Site to fire on a missile or aircraft, the object must meet the following three requirements. The object must be:

- Within the Altitude Zone and Range restrictions of the SAM Sites engineering capability. Note that in current versions of JTLS, this engineering capability is represented as a circle, but as a result of ECP [JTLS-2013-11722 Non-Circular Sensor And Air Defense Ranges](#), this capability is represented as a sector.
- Within the ROE fire range restriction of the SAM Site. This will not change as a result of this ECP. The SAM target will continue to obtain its range restriction from either its owning unit or for those sites without an owning unit from the site's associated unit.
- On the list of allowable ATCs. This is the essence of the ECP and is new to the model as the result of implementing this new capability.

## 3.0 Detailed Design

### 3.1 Specifying The Allowable ATC List

The model will not hold a list of allowable ATCs for each target. Instead each target will hold a list of fire-restricted ATCs. This list of restricted ATCs is empty for each SAM Site that exists in the initialization database or is created during game play. This means that if a user does not want to use the expanded allowable fire definition provided by this ECP, the model will operate as it has always done without the need of specific player action.

The current ROE Order will be expanded to allow the player the ability to place ATC restrictions or remove existing ATC restrictions from the SAM Sites fire restriction list. This will be done by added a sixth option to the ROE Order

Spreadsheet for order entry

Tracking and monitoring the allowable list

## 4.0 Data Changes

No data changes are required for this ECP.

## 5.0 Order Changes

The Rule of Engagement Order will be changed as described above.

## 6.0 JODA Changes

No JODA Data System parameter, structure, or protocol changes are required to implement this design.

## 7.0 Test Plan

Text [*Describe the basic test objectives and procedures. This Test Plan section may be published as a separate document.*]

### 7.1 Test 1 Title

Purpose: [*Describe the specific feature, function, or behavior to be tested or measured.*]

Step 1: Text

Step 2: Text

**Expected Results:** [*Describe the specific model behavior to be observed.*]

### 7.2 Test 2 Title

Purpose: [*Describe the specific feature, function, or behavior to be tested or measured.*]

Step 1: Text

Step 2: Text

*[Describe the specific model behavior to be observed.]*

