翻译内容：4.12 USER RULES OPERATIONS

4.12 用户规则操作

The User Rules capability within EADSIM provides the ability to manage platforms' emitters, direct aircraft flight; set status conditions, and trigger other platforms based on events. For damage modeling, it provides a facility to alter an aircraft’s mission and its performance characteristics. The User Rules phase incorporates aircraft return to base triggers and responses as well as the countermeasures capability that was available in previous versions of EADSIM. In addition, the User Rules phase expands the available triggers, platform status conditions, and the responses.

EADSIM中的用户规则能力提供了管理平台发射器，指导飞机飞行，设置状态条件，并根据事件触发其他平台的能力。对于损伤建模，它提供了一个改变飞机任务及其性能特征的设施。用户规则阶段包含了飞机返回基地的触发和响应，以及EADSIM以前版本中的反制能力。此外，用户规则阶段扩大了可用的触发器、平台状态条件和响应。

The User Rules phase operates using user-defined triggers and responses. Based on a trigger event, a response can occur. Multiple responses can occur, provided they do not conflict with currently executing responses. If a response conflicts with a currently executing response, the user-defined priority associated with the trigger-response pair determines which response will be allowed to execute.

用户规则阶段使用用户定义的触发器和响应进行操作。基于一个触发器事件，可以发生一个响应。该阶段允许同时发生多个响应，只要它们不与当前执行的响应冲突。如果一个响应与当前执行的响应冲突，与触发器-响应对相关的用户定义的优先级决定哪一个响应将被允许执行。

The monitoring of a platform's current situation includes consideration of items such as events taken by the platform, ARM recognition, radar jamming recognition, recognition of loss of air picture, and recognition of the loss of a commander or subordinate platform. The emitter/receiver management provides a wide range of responses as a function of the current situation. This awareness comes through the capabilities defined by the User Rules phase of the ruleset operating on the platform. These capabilities are currently available for platforms using the following rulesets:

对平台当前态势的监测包括考虑平台采取的事件、ARM识别、雷达干扰识别、空中画面丢失的识别、指挥官或下属平台丢失的识别等项目。发射器/接收器管理提供广泛的响应，作为当前态势下的功能。这种能力来自于平台在用户规则阶段定义的运行规则集的能力。这些能力目前可用于使用下列规则集的平台：

Flexible SAM Flexible Commander Fighter

灵活的SAM 灵活的指挥官战斗机  
 Airbase

空中基地  
 SAM Launcher Control Station SAM Launcher

SAM发射器控制站 SAM发射器  
 AGAttacker

空对地攻击者（Air-to-Ground Attackers）  
 Ground Attacker Commander Laser

地面攻击者指挥官激光  
 Bomber Fighter/Bomber Wild Weasel Sweeper

轰炸机 战斗机/轰炸机Wild Weasel Sweeper  
 Escort

护送

The User Rules phase allows users to specify certain conditions: i.e., triggers that produce a defined response. User-specified trigger events, such as recognition of an ARM, cause user-specified responses to occur. These responses include shutting down emitters, forwarding alerts for ARMs, activating emitter decoys, and activating towed decoys. The trigger conditions are composed of events—e.g., recognition that an ARM has been launched—combined with the state of the platform. The state of the platform includes whether the platform is currently locked on a target or has interceptors requiring guidance in the air to targets.

用户规则阶段允许用户指定某些条件：即产生规定响应的触发器。用户指定的触发事件，如识别ARM，会导致用户指定的响应发生。这些响应包括关闭发射器，转发ARM警报，激活发射器诱饵，以及激活拖曳诱饵。触发条件由事件组成--例如，识别到ARM已经发射--与平台的状态结合在一起。平台的状态包括平台目前是否锁定了一个目标，或有需要引导到目标的截击机。

The Flexible SAM and Flexible Commander, as well as the Fighter, Airbase, SAM LCS, and SAM Launcher, can also use the User Rules phase to choose an alternate commander for itself or for its subordinates, when the existing commander or subordinate is killed or is lost or regained through communications checks.

灵活SAM和灵活指挥官，以及战斗机、空军基地、SAM LCS和SAM发射器，在现有的指挥官或下属被击毁，或通过通信检查失去或重新获得指挥官时，都可以使用用户规则阶段为自己或其下属选择一个备用指挥官。

# 4.12.1 User Rules Trigger Events

4.12.1 用户规则触发事件

The User Rules phase is driven by the evaluation of triggers. Each of the triggers results in an evaluation of the current trigger and platform status to determine the appropriate response, if any. To initiate a given response, the combination of trigger and status conditions for that response must be met. The trigger conditions are:

用户规则阶段是由触发器的评估驱动的。每个触发器都会导致对当前触发器和平台状态的评估，以确定适当的响应，如果有的话。要启动一个给定的响应，必须满足该响应的触发和状态条件的组合。触发条件是：  
 •                Event Trigger

- 事件触发器  
 •                Message Reception

- 信息接收  
 •                Message Interception

- 信息拦截  
 •                EMCON Plan

- EMCON计划  
 •                Named Trigger

- 命名的触发器  
 •                Platform-Object Geometry

- 平台-物体的几何学  
 •                Air-to-Surface Missile and Host Separation (ARM Launch)

- 空对地导弹和主机分离（ARM发射）。  
 •                ARM Classification

- ARM分类  
 •                ARM Alert Received

- 收到的ARM警报  
 •                ARM Threat

- 威胁警报  
 •                ARM Time to Impact

- ARM产生影响的时间  
 •                Target Threat Declaration

- 目标威胁声明  
 •                Target Illumination Initiated

- 启动对目标的无线照射  
 •                Jammer Detection/Alert

- 干扰器检测警报  
 •                Aborted Mission

- 流产的任务  
 •                Completed Mission

- 已完成的任务  
 •                Low Fuel

- 低燃料

Responses of reacting platforms are dependent on the state of the platform.

响应平台的响应取决于平台的状态。

Numerous status conditions are available to define the state of the platform.

有很多的状态条件可用于定义平台的状态。

The triggers are prioritized to determine which reaction takes precedence when multiple reactions occur. The user can define as many combinations of triggers as desired. For example, one response might be to shut down all emitters if an ARM alert is received. If an ARM alert is received but the platform is guiding interceptors, however, the appropriate response might be to deploy decoys instead of shutting down emitters.

触发器有优先等级，以确定在多个响应（同时）发生时哪个响应优先。用户可以根据需要定义任意多的触发器组合。例如，如果收到ARM警报，一种响应可能是关闭所有发射器。然而，如果收到ARM警报，但平台正在引导截击机，适当的响应可能是部署诱饵而不是关闭发射器。

In this case, the latter triggered response interaction would need to be prioritized higher than the former.

在这种态势下，后一个触发的响应在交互中需要比前一个更优先。

Each of the triggers and status conditions is discussed in the following sections.

每一个触发器和状态条件将在以下章节中讨论。

## 4.12.1.1 Event Trigger

4.12.1.1 事件触发器

When a platform executes an event, the User Rules phase can be triggered. An event is defined as any action logged for subsequent extraction by the Engagement Statistics Post Processor, including activation, battle management events, refueling, maneuvers and reactions. The user is able to select any event that is logged. An example would be that as an aircraft performs a lock action, a response might be to activate additional sensors or to point the platform's sensors. Another example is when an aircraft is performing an evasive maneuver; it can turn off its emitters.

当一个平台执行一个事件时，用户规则阶段可以被触发。一个事件被定义为任何被记录下来供交战统计后处理器随后提取的行动，包括激活、战斗管理事件、加油、机动和响应。用户能够选择任何被记录的事件。一个例子是，当一架飞机执行锁定动作时，响应可能是激活额外的传感器或指向平台的传感器。另一个例子是，当一架飞机在进行规避动作时，它可以触发“关闭其发射器”事件。

Several triggers that were available in the countermeasures phase have been converted to event triggers. These are discussed in Subsection 4.12.4.

在反措施阶段可用的几个触发器已被转换为事件触发器。这些将在4.12.4小节中讨论。

## 4.12.1.2 Message Reception

4.12.1.2 信息接收

The message reception trigger activates upon receipt of any of the specified messages. For the message reception trigger to pass, the specific message must either be a track message or a command message specifying a target.

消息接收触发器在收到任何指定的消息时激活。为使消息接收触发器通过，特定的消息必须是一个目标轨迹消息或指定目标的命令消息。

## 4.12.1.3 Message Interception

4.12.1.3 信息拦截

The EADSIM Passive RF sensor class is capable of detecting platforms that transmit radio frequency communications. Detection is conditioned on field of view, line-of-sight, and bandwidth considerations as well as probability of signal interception. For deterministic modeling, an additional constraint on minimum signal strength is also applied. The detection capability makes no distinction in the content of the messages transmitted. As long as the detection criteria are satisfied, the transmitting platform is visible to the RF receiver.

EADSIM无源射频传感器（类）能够探测到发射射频通信的平台。探测的条件是视场、视线和带宽~~的考虑~~，以及信号拦截的概率。对于确定性的建模，还可以添加最小信号强度的额外约束。探测能力对传输的信息内容不加区分。只要达到检测标准，射频接收器就可以发现发射平台。

Platforms detecting RF communications can respond in user-specified ways based on the content of intercepted messages. This capability provides a selectable list of EADSIM message types and protocols. One Message Interception table is specified on the User Rules definition. It provides a probability of message interception as a function of message type and protocol. For this case the Passive RF sensor provides detection of the communication link. After detection of the link is accomplished, the message interception option is evaluated. Only messages that pertain to the detecting platform or one of its assets are evaluated. With this capability enabled, if the transmitted message is not on the list or it did not arrive via a specified protocol, then no interception of the transmitted message occurs. If the transmitted message does map to a specific message type and protocol in the table, a message interception probability draw is performed. The selected probability for the message type/protocol pair is compared to a random number selected from a uniform distribution. If the probability exceeds the random number, the trigger is satisfied. If the probability falls below the random number or else a valid match was not found for Message Type and Protocol, then that trigger condition is not satisfied.

检测射频通信的平台可以根据截获信息的内容，以用户指定的方式做出响应。这种能力提供了一个可选择的EADSIM消息类型和协议的列表。在用户规则定义中指定了一个消息拦截表。它提供了消息拦截的概率（消息类型和协议的函数）。在这种情况下，无源射频传感器提供通信链路的检测。在完成对链路的检测后，对消息拦截选项进行评估。只有与探测平台或其资产之一有关的信息才会被评估。启用这一功能后，如果传输的信息不在列表中，或没有通过指定的协议到达，那么就不会对传输的信息进行拦截。如果传输的信息确实与表中的特定信息类型和协议相对应，就会从均匀分布中进行一次抽签，选择的随机数将与消息类型/协议的拦截概率进行比较。如果拦截概率超过随机数，则触发器得到满足。如果概率低于随机数，或者没有发现消息类型和协议的有效匹配，那么该触发条件就不满足。

Each intercepted message from the transmitting platform is compared to a list of user-selected message type and protocol pairs within the trigger definition. If a message transmitted with a specified protocol matches to any listed message type/protocol pair, the message interception trigger is then satisfied.

从发射平台截获的每条消息都要与触发器定义中用户选择的消息类型和协议对列表进行比较。如果以指定协议传输的消息与任何列出的消息类型和协议对相匹配，那么消息拦截触发器就得到满足。

As an example, suppose a battalion sends track information to a SAM battery about a bomber aircraft with a self-protection jammer. If the aircraft has a passive RF sensor, is enabled to intercept a “Target Assignment” message type via an encoded protocol, and satisfies the probability draw on message interception, then it could choose to respond by allocating a jammer beam to disrupt the radio receivers at the battery.

作为一个例子，假设一个营向一个SAM发送了一架带有自我保护干扰器的轰炸机的目标轨迹信息。如果该飞机有一个无源射频传感器，能够通过编码协议拦截 "目标分配 "信息类型，并满足信息拦截的概率抽样，那么它可以选择通过分配干扰器波束来破坏电池的无线电接收器作为响应。（大意：轰炸机通过信息拦截发现自己的轨迹已经被敌方发现了，于是发射干扰作为响应。）

## 4.12.1.4 EMCON Plan

4.12.1.4 EMCON计划

The EMCON plan trigger allows specification of standby transition and standby duration. This trigger is used primarily with Supportability Modeling as described in Section 4.15.

EMCON计划触发器允许指定待机过渡和待机时间。这个触发器主要用于第4.15节所述的可支持性建模。

The named trigger allows a platform to trigger another platform. Within one platform's User Rules responses, a named trigger will be defined. The platform will also designate a list of the platforms that should be triggered. When the platform executes its response, each platform designated on the list will have its User Rules phase scheduled, using the designated named trigger.

命名触发器允许一个平台触发另一个平台。在一个平台的用户规则响应中，将定义一个命名触发器。该平台还将指定一个应被触发的平台的列表。当平台执行其响应时，列表上指定的每个平台将使用指定的命名触发器，安排其用户规则阶段。

Within the response, the platforms that can be triggered can be designated by categories. If the desired platforms do not fall within one of the given categories, the user can define trigger groups of platforms. The categories are:

在响应中，可以按类别指定可触发的平台。如果所需的平台不属于给定的类别之一，用户可以定义平台的触发组。这些类别是：  
 -        Self

- 自己  
 -        Commander

- 指挥官  
 -        Subordinate

- 下属单位  
 -        Flight Leader

- 编队长机  
 -        Wingman

- 编队僚机  
 -        Platforms Providing Engagement Support

- 提供交战支持的平台  
 -        Platforms Providing Current Support

- 提供当前支持的平台  
 -        Platforms Providing Current Support on this Target

- 目前对该目标提供支持的平台  
 -        Platforms Receiving Engagement Support

- 获得交战支持的平台  
 -        Platforms Currently Supported

- 目前支持的平台  
 -        Platforms Supported on this Target

- 该目标支持的平台  
 -        Platforms Providing External Surveillance

- 提供外部监视的平台  
 -        Platforms Receiving External Surveillance

- 接受外部监视的平台  
 -        Tanker

- 坦克  
 -        Target

- 目标  
 -        Jamming Deconfliction Group

- 解除干扰小组  
 -        Defined Trigger Groups

- 定义的触发器组

The total number of platforms triggered can optionally be limited. If a limit is defined, the platforms are sorted either by range to target or range to the triggering platform. An option allows exclusion of busy platforms.

触发的平台总数可以有选择地进行限制。如果定义了限制，平台将按照与目标的距离或与触发平台的距离进行排序。可以设置选项来排除繁忙的平台。

For example, when an AWACS performs an evasive maneuver, a response may be defined to execute the trigger AWACS\_MANEUVERING. The AWACS might designate its subordinates to be triggered. At the time of the response, the User Rules phase will be scheduled for each of the subordinates, using the named trigger AWACS\_MANEUVERING. The subordinates would have a Trigger Definition for AWACS\_MANEUVERING, which might include the response to turn on additional sensors.

例如，当AWACS进行规避机动时，可以定义一个响应来执行触发器AWACS\_MANEUVERING。该AWACS可能指定其下属被触发。在响应的时候，用户规则阶段将为每个下属安排，使用命名的触发器AWACS\_MANEUVERING。下级将有一个AWACS\_MANEUVERING的触发器定义，其中可能包括打开额外传感器的响应。

When a trigger group is specified, this name becomes available to add to a platform. During Scenario Generation, a list of platforms for each trigger group can be defined. For example, an AWACS might want to include a group of fighters on its trigger group that are not subordinates but are escorting the AWACS. The AWACS would then have a trigger group name of ESCORT. Within the AWACS platform definition, all the fighters to be included in the ESCORT group would be specified.

当指定了一个触发器组，这个名称就可以添加到一个平台上。在情景生成期间，可以为每个触发组定义一个平台列表。例如，一架预警机可能希望在其触发组中包括一组战斗机，这些战斗机不是下属，而是为预警机护航的。那么预警机的触发组名称为ESCORT。在预警机平台定义中，将指定所有被纳入ESCORT组的战斗机。

The Named Trigger can also be triggered by three additional methods. Within the FIRE Console, any named trigger defined for the ruleset may be executed through a FIRE Control Action command. A Named Trigger may be activated as the result of a closed Fault Tree gate allowing for partial damage modeling. A named trigger may also be activated as a result of the failure or repair of an FDSC/Inventory item.

命名触发器还可以通过另外三种方法触发。在FIRE控制台中，为规则集定义的任何命名触发器可通过FIRE控制行动命令执行。命名触发器可作为关闭的故障树门的结果而被激活，允许部分损坏建模。一个命名的触发器也可以由于FDSCInventory项目的失败或修复而被激活。

## 4.12.1.6 Platform-Object Geometry

4.12.1.6 平台-物体的几何特征

The platform-object geometry definition allows the triggering of the User Rules phase based on geometry conditions of the platform, its target, and relative measures for the platform and its target. The geometry conditions can be evaluated both as a stand-alone trigger and in combination with event triggers as a status condition.

平台-物体的几何定义允许根据平台、其目标的几何条件以及平台和其目标的相对措施来触发用户规则阶段。几何条件可以作为一个独立的触发器进行评估，也可以与事件触发器结合作为一个状态条件进行评估。

### 4.12.1.6.1 Platform-Object Geometry Definition

4.12.1.6.1 平台-物体的几何定义

The platform-objects geometries are defined on the User Rules phase definition window. This allows platform-object geometries to be defined once and to be used in multiple trigger definitions. Platform-object geometry checks as a trigger are activated through the User Rules phase responses.

平台-物体的几何特征是在用户规则阶段定义窗口中定义的。这允许平台-物体的几何特征被定义一次，并在多个触发器定义中使用。作为触发器的平台-物体几何特征检查是通过用户规则阶段的响应来激活的。

The criteria for the platform-object geometry checks are divided into platform measures, target measures, and relative measures.

平台-物体几何检查的标准分为平台测量、目标测量和相对测量。

Relative

相对而言

yyx

yyx

Range Speed Speed

范围 速度 速度

Delta Altitude Altitude (AGL) Altitude (AGL) Aspect Azimuth Altitude (MSL) Altitude (MSL) Aspect Elevation

三角洲高度 高度(AGL) 高度(AGL) 角度方位 高度(MSL) 高度(MSL) 角度高程

Azimuth Angle Off Nose Elevation Angle Off Nose Range/Range Rate Crossing Angle

方位角偏离机头 仰角偏离机头 射程率交叉角

For example, upon receipt of a commanded assignment, an aircraft might turn on platform-object geometries to check the range of the platform to its target. The platform would have a platform-object geometry trigger to define what occurs when the platform is within a specified range of the target. The response can be to turn on and point its sensors.

例如，在收到指令任务后，飞机可能会打开平台-物体几何图形，以检查平台到目标的范围。平台将有一个平台-物体几何触发器，以定义当平台在目标的特定范围内时发生什么。响应可以是打开并指向其传感器。

### 4.12.1.6.2 Object Definition

4.12.1.6.2 对象定义

The object category defines which objects are evaluated during a platform- object geometry check, the order in which those objects are sorted, and the number of objects that are evaluated. The available categories are:

对象类别定义了在平台-对象几何检查中评估哪些对象，这些对象的排序顺序，以及评估的对象数量。可用的类别有。

-        Commanded Targets

- 指挥的目标

-        Scripted Targets

- 脚本化的目标

-        Engaged Targets

- 交战的目标

-        Current Target

- 目前的目标

-        Home Base

- 首页基地

-        All Tracks

- 所有曲目

-        Authorized Tracks

- 授权的轨道

-        Assigned Tracks

- 分配的轨道

-        Threatening Tracks

- 威胁的轨迹

-        Engaged Tracks

- 交战的轨道

The four categories labeled as targets operate only for those rulesets that utilize the target list. This would include Fighters, AGAttackers, and Laser rulesets. Commanded targets are determined by evaluating the platform's target list, and finding those targets that were assigned by its commander. Scripted targets are the targets on the platform's target list that were specified as scripted mission targets. Engaged targets are determined by evaluating the platform's launch records. The Current target object category is available when the target that satisfied the trigger or status condition satisfies the platform object geometry. Home Base is the platform's designated home airbase. As an example, a platform might want to activate an additional sensor when within a certain range of a target. Or, a platform might want to adopt a particular flight option when within a specified distance of its home airbase.

标记为目标的四个类别只对那些使用目标列表的规则集进行操作。这将包括战斗机、AGA攻击机和激光规则集。指挥目标是通过评估平台的目标列表来确定的，并找到那些由其指挥官分配的目标。脚本目标是平台的目标列表中被指定为脚本任务目标的目标。交战目标是通过评估平台的发射记录确定的。当前目标对象类别在满足触发或状态条件的目标满足平台对象的几何特征时可用。主基地是平台指定的主空军基地。举例来说，一个平台可能想在目标的某一范围内激活一个额外的传感器。或者，一个平台可能想在其母港空军基地的特定距离内时采用一个特定的飞行选项。

The track options allow the object’s perceived position to be used instead of the true position. The All Tracks option evaluates all tracks in the platform’s main and/or ground track file. Authorized Tracks are all tracks in the platform’s track file that have been marked as authorized for engagement. An authorized track is any track that the platform is capable of engaging based on the ruleset options. Assigned Tracks are all tracks marked as assigned by the platform’s commander. Threatening Tracks are all tracks in the track file marked as threatening. The Threatening Track option is only available for the Flexible SAM and Flexible Commander rulesets and is considered any track that threatens the platform or any of its assets. Engaged Tracks are all tracks that are currently marked as engaged. As an example, a platform might want to adjust a sensor’s pointing to locate an assigned track within the sensor’s range.

轨迹选项允许使用物体的感知位置而不是真实位置。所有航迹选项评估平台的主航迹或地面航迹文件中的所有航迹。授权航迹是平台航迹文件中的所有航迹，这些航迹已被标记为授权交战。授权轨道是平台根据规则集选项能够交战的任何轨道。指定轨道是指由平台指挥官标记为指定的所有轨道。威胁轨道是轨道文件中标记为威胁的所有轨道。威胁轨道选项仅适用于灵活防空系统和灵活指挥官规则集，并被视为威胁到平台或其任何资产的任何轨道。交战轨道是指当前被标记为交战的所有轨道。举例来说，一个平台可能想调整传感器的指向，以便在传感器的范围内找到一个指定轨道。

The platform-object geometry checks rely on the position of the platform and the object. Platform-object geometry checks occur independently of flight processing updates and track updates. As a result, these positions are linearly propagated forward to the time of the check. For the platform, the true position will be propagated from the most recent scenario interval to the time of the platform-object geometry check.

平台-物体的几何检查依赖于平台和物体的位置。平台-物体几何检查独立于飞行处理更新和轨道更新而发生。因此，这些位置被线性地向前传播到检查的时间。对于平台来说，真实的位置将从最近的情景区间传播到平台-物体几何检查的时间。

Objects are defined on the User Rules phase definition, and are defined separately from the platform-object geometry definition. This allows a platform-object geometry definition to be used against multiple targets. For example, platform-object geometry might be defined for when a platform is within 10 kilometers of its target. This geometry could be named RANGE10K. Multiple objects can also be defined. One might be for commanded targets, and another might be for scripted targets. Depending on scenario events, a platform might decide to turn on the checking of platform-object geometry RANGE10K for object SCRIPTED\_TGT. This would check the range of the platform and allow a trigger to occur when the platform was within 10 km of its scripted target.

对象是在用户规则阶段定义的，并与平台-对象的几何定义分开定义。这使得一个平台-物体的几何定义可以针对多个目标使用。例如，当一个平台在其目标的10公里范围内时，可以定义平台-对象的几何特征。这个几何体可以被命名为RANGE10K。也可以定义多个对象。一个可能是为指令目标，另一个可能是为脚本目标。根据情景事件，一个平台可能决定打开对SCRIPTED\_TGT对象的平台-对象几何RANGE10K的检查。这将检查平台的范围，并允许在平台距离其脚本目标10公里以内时发生触发。

Options allow evaluation of all candidate objects or selected candidate objects. If the option to evaluate all candidates is selected, the platform-object geometry checks will be performed for each designated object. If the option to evaluate a designated number of candidates is selected, the candidates will be sorted based on their weights. A weight can be assigned to each category of candidate. For example, a scripted target might have a weight of 100. Additional sort criteria allow further sorting amongst categories. These criteria are threat priorities, target classes, and platform-object geometry. The sort using threat priority is only available for Flexible SAM and Flexible Commander rulesets and sets the object’s weight to the user-specified weight minus its position in the platform’s sorted threat list. For example, if the weight for threat priority is set to 100 then the highest priority object in the threat list will have a weight of 100 and the next object in the list will have a weight of 99.

选项允许对所有候选对象或选定的候选对象进行评估。如果选择评估所有的候选对象，平台-物体的几何检查将对每个指定的对象进行。如果选择了评估指定数量的候选对象的选项，候选对象将根据其权重进行排序。可以给每一类候选物分配一个权重。例如，一个脚本目标的权重可能是100。额外的排序标准允许在类别之间进一步排序。这些标准是威胁优先级、目标类别和平台-物体的几何特征。使用威胁优先级的排序仅适用于灵活的SAM和灵活的指挥官规则集，并将物体的权重设置为用户指定的权重减去其在平台排序的威胁列表中的位置。例如，如果威胁优先权的权重设置为100，那么威胁列表中优先级最高的物体的权重将为100，列表中的下一个物体的权重为99。

If a target meets one or more of these criteria, the weights will be added to achieve a final weight for the object. For example, if the class of scripted target that was originally weighted as 100 is specified on the Target Classes list with a weight of 10, the weight of the scripted target becomes 110. If the scripted target is also within a designated platform-object geometry with an associated weight of 25, the total weight for that scripted target will be 135.

如果一个目标符合这些标准中的一个或多个，那么权重将被加上，以实现该对象的最终权重。例如，如果最初加权为100的脚本目标的类别在目标类别列表中被指定为10的权重，那么脚本目标的权重就变成110。如果该脚本目标也在一个指定的平台-物体几何特征内，其相关重量为25，则该脚本目标的总重量将为135。

Once the weight for every object has been computed and the list of objects has been sorted by weight, the grouping constraints are checked. If any of the grouping constraints are selected, the individual candidates are grouped using the selected constraints. The grouping is accomplished by selecting the first candidate in the sorted list that is not already in a group and assigning it the first available group number beginning with 1. Next, each candidate in the sorted list that has not already been assigned a group number is evaluated to determine if it falls within the user-specified constraints. If it does, its group id is assigned to the current group number. If it does not, an action along with the computed value for the constraint can be seen in the User Rule History and the Failure Log Report in Report Generation. The sorted list is evaluated until all candidates have been assigned to a group. The list of members for each group of objects is logged for use by Report Generation, e.g. the User Rule History report.

一旦每个对象的权重被计算出来，并且对象列表被按权重排序，就会检查分组约束。如果选择了任何一个分组约束，则使用所选的约束对各个候选者进行分组。分组是通过选择排序列表中第一个尚未在一个组中的候选者，并给它分配第一个可用的组号（从1开始）来完成的。 接下来，排序列表中每个尚未被分配组号的候选者都被评估，以确定它是否属于用户指定的约束条件。如果是，它的组号就会被分配给当前的组号。如果不在，则可以在用户规则历史和报告生成中的失败日志报告中看到一个动作以及约束条件的计算值。排序的列表被评估，直到所有的候选对象都被分配到一个组。每组对象的成员列表被记录下来供报告生成使用，例如用户规则历史报告。

The available constraints for grouping are angle, range, speed, azimuth, and elevation. All constraints are evaluated relative to the highest weighted object’s position and velocity. All of the constraints are designed to measure proximity of targets. The azimuth and elevation constraints are particularly relevant for evaluating the potential of targets falling within the field of view of a sensor.

The range constraint is slant range between the highest weighted object in the group and each member of the group.

范围约束是指组中权重最高的对象与组中每个成员之间的倾斜范围。

yyx= Position of the group candidate.

yyx= 小组候选对象的位置。

The grouping angle constraint limits a group to those candidates generally going in the same direction by comparing the angle between the candidates velocity vector to the specified grouping angle threshold

分组角度约束通过比较候选者速度矢量与指定分组角度阈值之间的角度，将一组限制在那些通常朝向相同方向的候选者上。

yyx

yyx

The grouping speed constraint prevents grouping objects with vastly different speeds; thus, a high potential for separatio

分组速度的限制阻止了对速度相差悬殊的物体进行分组；因此，分离的可能性很大。

The azimuth constraint allows grouping of objects that are within the specified azimuth limit of the highest weighted object. An example usage of this constraint would be to limit the group to objects within the azimuth field of view of a sensor. The azimuth calculation is based on a coordinate system formed with the y-axis aligned from the evaluating platform to the highest weighted object, the x- axis in the horizontal plane, and the z-axis orthogonal to the XY-plane. The ECEF2BodyMatrix function, described in Appendix B.10, creates the rotation matrix RotBody. The evaluating platform’s position is used as the origin. The difference vector between the highest weighted object and the evaluating platform’s position is used as the velocity input into ECEF2BodyMatrix. The candidate’s position is then rotated into this local coordinate system.

方位角约束允许对处于最高权重物体的指定方位角限制内的物体进行分组。这个约束的一个例子是将分组限制在一个传感器的方位角视场内的物体。方位角的计算是基于一个坐标系，该坐标系的Y轴从评估平台到最高权重物体对齐，X轴在水平面上，Z轴与XY面正交。附录B.10中描述的ECEF2BodyMatrix函数，创建了旋转矩阵RotBody。评估平台的位置被作为原点。最高权重的物体和评估平台的位置之间的差矢量被用作ECEF2BodyMatrix的速度输入。候选对象的位置然后被旋转到这个局部坐标系中。

The elevation constraint allows grouping of objects based on the elevation separation of the object from the high priority object. This constraint is computed from the components of yyx as defined for the azimuth computation.

仰角约束允许根据物体与高优先级物体的仰角间隔对物体进行分组。这个约束是根据方位角计算中定义的yyx的分量计算出来的。

The individual candidates are evaluated in descending order of weight, until the first candidate is found which satisfies platform-object geometry conditions. If grouping options are selected, the groups are evaluated in descending order of weight where the group weight is defined as the highest weighted candidate within the group. If the option to evaluate centroids is selected, the first group whose centroid satisfies the geometry volume is designated. If grouping without evaluating the centroid, each object within a group is evaluated and if any object within the group satisfies the geometry volume the highest weighted candidate within the group is designated.

各个候选者按权重降序进行评估，直到找到满足平台-物体几何条件的第一个候选者。如果选择了分组选项，则按权重降序评估各组，其中组的权重被定义为该组中权重最高的候选者。如果选择评估中心点的选项，则指定中心点满足几何体的第一个组。如果不评估中心点而进行分组，则评估组内的每个对象，如果组内有任何对象满足几何体积，则指定组内权重最高的候选者。

If a valid object or group of objects is found, the User Rules phase is executed to determine if there is a trigger for the platform- object geometry for that object. If the platform-object geometry pair is found as a trigger and the trigger has been met then the associated User Rules response is scheduled to execute. The object or group of objects designated during the geometry evaluation is used in the User Rules phase response when the responses are relative to a target. If evaluating individual candidates and using grouping then the group of objects associated with the designated object is used for the response. If the User Rule response only uses one object then the highest weighted object in the group is used for the response. The designated object or group of objects found during the geometry evaluation can be seen in the User Rule History report in Report Generation.

如果发现一个有效的对象或对象组，则执行用户规则阶段，以确定该对象的平台-对象几何特征是否有触发器。如果发现平台-物体几何对是一个触发器，并且触发器已被满足，那么相关的用户规则响应被安排执行。当响应相对于一个目标时，在几何学评估期间指定的对象或对象组被用于用户规则阶段的响应。如果评估单个候选对象并使用分组，那么与指定对象相关的对象组将用于响应。 如果用户规则响应只使用一个对象，那么该组中权重最高的对象被用于响应。在几何学评估中发现的指定对象或对象组可以在报告生成中的用户规则历史报告中看到。

For example, if five scripted targets were evaluated as individual candidates during the platform-object geometry check, the scripted target with the highest priority would be sent to the User Rules phase. If the response to meeting the platform-object geometry included pointing sensors at a target or initiating a flight option relative to a target, the scripted target would be used for these options.

例如，如果在平台-物体几何检查期间，有五个脚本目标被评估为单独的候选目标，具有最高优先级的脚本目标将被发送到用户规则阶段。如果满足平台-物体几何学的响应包括将传感器指向目标或启动相对于目标的飞行选项，脚本目标将被用于这些选项。

If a platform has multiple volume triggers defined, they are all checked to determine if they have just been turned on or if their repeat time has elapsed. For those volumes that have met one of these two conditions, their targets are sorted in accordance with the weights defined on the Object Category definition. Each target (or group centroid, if selected) is evaluated to determine if it is within the geometry volume of the trigger.

如果一个平台定义了多个卷的触发器，它们都会被检查，以确定它们是否刚刚被打开，或者它们的重复时间是否已经过了。对于那些满足这两个条件之一的卷，它们的目标会根据对象类别定义的权重进行排序。每个目标（或组中心点，如果选择的话）被评估以确定它是否在触发器的几何体积内。

The calculations for platform-object geometries are described in Appendix B9.

附录B9中描述了平台-物体几何特征的计算方法。

## 4.12.1.7 ASM/Host Separation Trigger

4.12.1.7 ASMHost分离触发器

The Flexible SAM and Commander can react to the recognition that an ARM or other ASM has separated from the host, or launching platform. For this reaction, the launching platform (AGAttacker ruleset) schedules the reactions of all Flexible SAM and Commander platforms within a user-specified azimuth and range from location of launch. The user can specify a probability of the SAM recognizing the separation, and the probability determines whether a reaction will occur. The user can specify a default probability for all ASM launches, or can specify probability based on the type of system launching the ASM.

灵活SAM和指挥官可以对ARM或其他ASM脱离主机或发射平台的识别做出响应。对于这种响应，发射平台（AGAttacker规则集）安排所有灵活SAM和指挥官平台在用户指定的方位角和发射地点的范围内进行响应。用户可以指定SAM识别分离的概率，该概率决定了是否会发生响应。用户可以为所有反坦克导弹的发射指定一个默认概率，也可以根据发射反坦克导弹的系统类型指定概率。

If the platform is able to react to the ASM launch, the User Rules phase is scheduled to execute at its start time. This allows the reacting platform an opportunity to gain track on explicitly flown missiles.

如果平台能够对ASM的发射做出响应，用户规则阶段就被安排在其开始时间执行。这使做出响应的平台有机会获得对明确飞行的导弹的跟踪。

If the AGAttacker launches an explicitly flown ARM or cruise missile, the reacting platform must have track on both the AGAttacker and the missile in order to react. This reaction represents the recognition of the missile separating from the launcher. Additionally, the probability of recognition is applied. For implicitly flown missiles, track is only required on the launching AGAttacker, and the probability of recognition is used to determine if reaction will occur. If randomness has been eliminated, the ARM recognition will always pass the probability of recognition evaluation.

如果AGAttacker发射了一枚明确飞行的ARM或巡航导弹，响应平台必须对AGAttacker和导弹都有跟踪，以便做出响应。这种响应代表了对导弹从发射器上分离的识别。此外，识别的概率也被应用。 对于隐性飞行的导弹，只需要对发射的AGAttacker进行跟踪，并使用识别概率来确定是否会发生响应。如果消除了随机性，ARM识别将始终通过识别概率评估。

## 4.12.1.8 ARM Classification Trigger

4.12.1.8 ARM分类触发器

Tracks can be classified as ARMs by Flexible SAMs and Flexible Commanders during their threat-assessment process. Once a target is classified as an ARM, the User Rules phase is scheduled to determine the response to the ARM. The User Rules phase is scheduled from the threat assessment routines and is scheduled to execute immediately.

在威胁评估过程中，灵活的防空系统和灵活的指挥官可以将轨迹归类为ARMs。一旦目标被归类为ARM，将安排用户规则阶段，以确定对ARM的响应。用户规则阶段是根据威胁评估程序安排的，并被安排为立即执行。

## 4.12.1.9 ARM Alert Message Received and Alert Timeout

4.12.1.9 收到的ARM警报信息和警报超时

During User Rules responses, ARM alerts can be optionally forwarded over the reacting platform's command links. This allows other platforms to react to the incoming ARM. Upon receiving an ARM alert from another member of the command chain, the User Rules phase is scheduled immediately for the reacting platform. The ARM alert remains a valid trigger for subsequent executions of the User Rules phase until the user-specified alert timeout has been reached.

在用户规则响应期间，ARM警报可以选择通过响应平台的指令链接转发。这使得其他平台能够对传入的ARM做出响应。从指挥链的另一个成员处收到ARM警报后，立即为响应平台安排用户规则阶段。ARM警报仍然是用户规则阶段后续执行的有效触发器，直到达到用户指定的警报超时。

## 4.12.1.10 ARM Threat and ARM Time to Impact

4.12.1.10 ARM的威胁和ARM的影响时间

Flexible SAMs and Flexible Commanders can assess a threat against ARMs. Once an ARM threat has been assessed, the User Rules phase is scheduled immediately to determine the assessing platform's reaction. The threat status of the ARM is reevaluated every execution of the target-select phase. For each execution of the target-select phase that determines the ARM is a threat, the User Rules phase is scheduled.

灵活的SAM和灵活的指挥员可以评估对ARM的威胁。一旦评估了ARM威胁，立即安排用户规则阶段，以确定评估平台的响应。每次执行目标选择阶段，都会重新评估ARM的威胁状态。对于目标选择阶段的每一次执行，如果确定ARM是一种威胁，则安排用户规则阶段。

If the ARM time-to-impact trigger is selected, the computed ARM time to impact must be less than the user-specified impact time in order to meet the trigger conditions. If the computed impact time for the ARM is not within the specified time, no reaction occurs.

如果选择了ARM的打击时间触发，计算出的ARM的打击时间必须小于用户指定的打击时间，以满足触发条件。如果计算出的ARM的打击时间不在指定时间内，则不发生响应。

## 4.12.1.11 Target Threat Declaration

4.12.1.11 目标威胁声明

When the Flexible SAM or Commander determines that a target is a threat and the threat-declaration trigger is selected, the User Rules phase is executed to determine the appropriate response. This trigger is intended to be used as a way of cueing the weapons control radar. The threat-declaration trigger is valid only for the initial threat determination.

当灵活防空系统或指挥官确定一个目标是一个威胁并选择了威胁声明触发器时，用户规则阶段被执行以确定适当的响应。该触发器旨在作为提示武器控制雷达的一种方式。威胁声明触发器只对最初的威胁判断有效。

## 4.12.1.12 Target Illumination Initiated

4.12.1.12 启动目标无线照射

When the Flexible SAM launches on a hostile target with a weapon that requires illumination and the target-illumination trigger is selected, the User Rules phase is executed to determine a response, if any. This response is intended to be used as a way of modeling the distinct waveform used when a target is being illuminated.

当灵活SAM用需要无线照射的武器向敌对目标发射，并且选择了目标无线照射触发器时，将执行用户规则阶段以确定响应，如果有的话。该响应旨在作为目标被照亮时使用的独特波形的建模方式。

## 4.12.1.13 Jammer Detection/Alert

4.12.1.13干扰器检测警报

The User Rules phase can operate in response to being jammed. Jamming is indicated either by a detection of a platform with an emitter or by receiving a jamming alert message. For both of these events, the User Rules phase is scheduled to execute immediately to determine the reacting platform's response. The User Rules Phase also has the ability to respond to the loss of a jamming strobe. If the jamming environment trigger is selected and the status indicator is No, the loss of a jamming strobe causes the execution of the User Rules phase. An appropriate response for this situation would be to have the SAM search sensor use its normal waveform instead of its burnthrough waveform.

用户规则阶段可以对被干扰的态势进行操作。干扰的标志是检测到有发射器的平台或收到干扰警报信息。对于这两个事件，用户规则阶段被安排立即执行，以确定响应平台的响应。用户规则阶段也有能力对干升空闪的丢失做出响应。如果选择了干扰环境触发器，且状态指示器为 "否"，则干升空闪的丢失会导致用户规则阶段的执行。对这种态势的适当响应是让SAM搜索传感器使用其正常波形，而不是其穿透波形。

The jamming trigger indicates that the reacting platform has detected jammer emitters on at least one threat. The jamming determination is made by the local or remote detection of jamming strobes by a passive sensor.

干扰触发器表明，响应平台在至少一个威胁上检测到了干扰发射器。干扰判断是通过无源传感器对干升空闪的本地或远程检测来进行的。

## 4.12.1.14 Aborted Mission

4.12.1.14 中止任务

This trigger can be evaluated only by Fighters and AGAttackers. For these ruleset types, this trigger is satisfied if the flight has been issued a command to stop its current assignment. This trigger also is satisfied if the flight is on a commanded assignment, has reached its predicted intercept point, and cannot engage its remaining targets.

这个触发器只能由战斗机和AGA攻击机评估。对于这些规则集类型，如果飞行被发出停止当前任务的命令，则满足该触发条件。如果该航班正在执行指令性任务，已经到达预测的拦截点，并且不能与剩余目标交战，也会满足该触发条件。

## 4.12.1.15 Completed Mission

4.12.1.15 完成任务

This trigger can be evaluated only by Fighters, AGAttackers, Fighter Bombers, Bombers, and Wild Weasels. It can be satisfied in three ways. First, this trigger is satisfied if all scripted targets have been engaged. Second, it is satisfied if the flight has finished its commanded assignment and the flight leader sends a command complete message to its commander. Finally, this trigger is satisfied if the flight is on a commanded assignment, has reached its predicted intercept point, and has already engaged all of its targets.

这个触发器只能由战斗机、AGA攻击机、战斗机轰炸机、轰炸机和野生黄鼠狼评估。它可以通过三种方式被满足。首先，如果所有的脚本目标都已被击中，则满足该触发条件。其次，如果航班已经完成了它的指令任务，并且航班长向其指挥官发送了指令完成信息，则满足该条件。最后，如果该航班正在执行指令任务，已经到达预测的拦截点，并且已经与所有的目标交战，则满足该触发条件。

## 4.12.1.16 Low Fuel

4.12.1.16 低燃料

The Low Fuel trigger may be evaluated based on the current fuel weight remaining on the aircraft or relative to the amount of fuel that will be left on the aircraft when it completes a return to base response. The Bingo Limit option uses the RTB Fuel Bingo Limit specified for the airframe to determine when the Low Fuel trigger is met, independent of the response associated with the trigger. The fuel level is evaluated at every scenario interval in Flight Processing. The Bingo Limit trigger is satisfied when a flight member is at or under its return to base fuel weight. The return to base fuel weight is calculated by adding the RTB fuel bingo limit to the aircraft's empty fuel weight; both parameters are specified on the Airframe Definition window.

低油量触发可以根据飞机上当前剩余的油量或相对于飞机完成返回基地响应时剩余的油量进行评估。宾果极限选项使用为机体指定的RTB燃油宾果极限来确定何时满足低燃油触发，与触发相关的响应无关。燃料水平在飞行处理中的每个场景间隔都会被评估。当飞行成员达到或低于其返回基地的燃油重量时，就满足宾果极限的触发。返回基地的燃油重量是通过将RTB燃油宾果限制与飞机的空燃油重量相加来计算的；这两个参数都是在机体定义窗口中指定的。

The RTB fuel weight comparison is as follows:

RTB的燃料重量比较如下。

yyxyyx

yyxyyx

The Fuel Reserve option evaluates not only the current fuel weight of the aircraft, but also the estimated amount of fuel that will be left on the aircraft when it completes the associated RTB response. This allows a more dynamic RTB fuel limit evaluation, such as allowing aircraft that are closer to base to remain in the air longer than those that must travel farther to reach their designated base. The Fuel Reserve trigger can only be evaluated if the associated response has a fuel reserve specified and has either Home Base or Closest Airbase as its destination.

燃油储备选项不仅评估了飞机当前的燃油重量，还评估了当飞机完成相关的RTB响应时，飞机上剩余的估计燃油量。这允许一个更动态的RTB燃料限制评估，例如允许离基地较近的飞机比那些必须走得更远才能到达指定基地的飞机在空中停留更长时间。燃油储备触发器只有在相关响应指定了燃油储备，并将原基地或最近的空军基地作为其目的地时才能被评估。

The Fuel Reserve trigger evaluation is scheduled on a sliding basis, with the estimation performed more frequently as the aircraft approaches the specified limit. The return to base fuel weight is determined by estimating the fuel expended in flying the aircraft to the airbase specified in the associated response using the specified flight option. If the destination is Closest Airbase, the expended fuel is calculated relative to the airbase closest to the aircraft at the time of the evaluation. If the estimated fuel remaining is less than the specified fuel reserve percentage of the airframe’s original fuel weight, the trigger has been met. Otherwise, the expected flight time remaining to reach the RTB fuel limit is calculated, and the time to check the fuel level is rescheduled for the minimum of half of the remaining time, the scenario interval, or ten minutes.

燃油储备触发评估是以滑动的方式安排的，当飞机接近规定的极限时，评估会更频繁地进行。返回基地的燃油重量是通过估算飞机使用指定的飞行选项飞往相关回复中指定的空军基地时消耗的燃油来确定的。如果目的地是最近的空军基地，消耗的燃油是相对于评估时离飞机最近的空军基地计算的。如果估计的剩余燃油量小于机体原始燃油重量的指定燃油储备百分比，则满足触发条件。否则，将计算达到RTB油量限制的预期剩余飞行时间，并将检查油量的时间重新安排在剩余时间的一半、情景间隔或10分钟的最小值。

# 4.12.2 User Rules Status Conditions

4.12.2 用户规则状态条件

Responses of platforms depend on the state of the platform. For example, if an ARM is currently threatening a platform, the desired response may be to engage the ARM. If the reacting platform cannot engage the ARM, then the user may prefer to have the reacting platform turn off its emitters and deploy decoys. To tailor the responses to account for the state of the reacting platform, several categories of status conditions are available.

平台的响应取决于平台的状态。例如，如果一个ARM目前正在威胁一个平台，所希望的响应可能是与ARM交战。如果做出响应的平台不能与ARM交战，那么用户可能更愿意让做出响应的平台关闭其发射器并部署诱饵。为了根据响应平台的状态调整响应，有几类状态条件可用。

## 4.12.2.1 Platform Status Conditions

4.12.2.1 平台状态条件

The Platform Status conditions are:

平台状态的条件是。

•                EMCON Authority

- EMCON机构

•                Jamming Environment

- 干扰环境

•                Moving

- 搬家

•                Standby Mode

- 待机模式

•                Flight Leader

- 编队长机

The EMCON authority status option allows the User Rules phase to initiate reactions during changes in a platform's EMCON authority status. EMCON authority can be designated at the ruleset and can be overridden at the platform level. Only one EMCON authority should exist in a command chain. The EMCON authority will have commanded control of sensors beneath the EMCON authority's level of command.

EMCON权限状态选项允许用户规则阶段在平台的EMCON权限状态变化时启动响应。EMCON权限可以在规则集中指定，也可以在平台层面上被战斗机交战区。一个指挥链中只能有一个EMCON权限。EMCON机构将对EMCON机构的指挥级别以下的传感器进行指挥控制。

The Jamming Environment status condition indicates the presence or absence of jamming strobes. The Moving status condition indicates that the platform is currently moving. Standby indicates that the platform is currently in standby mode.

干扰环境状态条件表示存在或不存在干扰闪光灯。移动状态条件表示平台目前正在移动。待机表示平台目前处于待机状态。

The Flight Leader status condition indicates that the platform evaluating its trigger conditions is currently serving as flight leader.

编队长机状态条件表示评估其触发条件的平台目前正担任编队长机。

## 4.12.2.2 Phase Status Conditions

4.12.2.2 相位状态条件

The phase status trigger includes options for indicating the phase the platform is currently executing. The Phase Status conditions are:

阶段状态触发器包括指示平台当前正在执行的阶段的选项。阶段状态的条件是：。

•                Target Select

- 目标选择

•                Vector

- 矢量

•                Engage

- 交战

•                Lock

- 锁定

•                Launch

- 启动

A separate type of status condition, i.e. Named Status, can be used to indicate when a platform is maneuvering. The Named Status capability is discussed in a later section.

一种单独的状态条件，即命名状态，可用于指示一个平台何时在进行机动。命名状态的能力将在后面的章节中讨论。

## 4.12.2.3 Mission Status Conditions

4.12.2.3 任务状态条件

The Flight Status conditions are:

飞行状态的条件是。

•                Flight Size

- 飞行尺寸

•                Below Fuel Bingo Limit

- 低于燃料宾果限额

•                Below Fuel Reserve

- 低于燃料储备

•                Scrambled From Base

- 基地炒货

•                Targets on List

- 名单上的目标

•                Reached Max Shots Per CAP

- 达到每个CAP的最大投篮次数

•                Exceeded MissionTime

- 超出任务时间

The Flight Size status condition gives a threshold flight size. For example, a flight might utilize a particular sensor configuration or might return to base when it reaches the designated threshold.

飞行规模状态条件给出了一个阈值飞行规模。例如，一个飞行可能利用一个特定的传感器配置，或者当它达到指定的阈值时，可能返回基地。

The Below Fuel Bingo Limit status condition indicates that the platform is low on fuel. The computations for when a platform is low on fuel are described in the trigger for Low on Fuel. For example, when an aircraft's interceptors have reached their targets and the platform is low on fuel, the response might be to select a flight option to send the aircraft to its home base.

Below Fuel Bingo Limit状态条件表明，平台的燃料不足。平台燃料不足时的计算方法在燃料不足的触发中有所描述。例如，当一架飞机的干扰已经到达它们的目标，而平台的燃料不足时，响应可能是选择一个飞行选项，将飞机送回它的本垒。

The Below Fuel Reserve status condition evaluates not only the current fuel weight of the aircraft, but also the estimated amount of fuel that will be left on the aircraft when it completes the associated RTB response. The Below Fuel Reserve status condition can only be evaluated if the associated response has a fuel reserve specified and has either Home Base or Closest Airbase as its destination.

低于燃油储备状态条件不仅评估飞机当前的燃油重量，而且评估当飞机完成相关的RTB响应时将留在飞机上的估计燃油量。只有当相关的响应指定了燃油储备，并将原基地或最近的空军基地作为其目的地时，才能评估低于燃油储备的状态条件。

Otherwise, the Below Fuel Reserve status will never be met. The return to base fuel weight is determined by estimating the fuel expended in flying the aircraft to the airbase specified in the associated response using the specified flight option. If the destination is Closest Airbase, the expended fuel is calculated relative to the airbase closest to the aircraft at the time of the evaluation. If the estimated fuel remaining is less than the specified fuel reserve percentage of the airframe’s original fuel weight, the status condition has been met.

否则，低于燃油储备的状态将永远不会被满足。返回基地的燃油重量是通过估算飞机使用指定的飞行选项飞往相关回复中指定的空军基地时消耗的燃油来确定的。如果目的地是最近的空军基地，消耗的燃油是相对于评估时离飞机最近的空军基地计算的。如果估计的剩余燃油量小于机身原始燃油重量的指定燃油储备百分比，则状态条件已满足。

The Scrambled From Base status condition is satisfied if the flight was scrambled from an air base. Flights can be commanded to scramble or can be scripted to take off at a specific scenario time. In either case, once the flight has completed its mission, this status condition is cleared until the flight lands at base and takes off again.

如果该航班是从一个空军基地加注的，则满足从基地加注的状态条件。飞行可以被命令加注，也可以通过脚本在特定场景时间起飞。无论哪种态势，一旦航班完成任务，这个状态条件就会被清除，直到航班降落在基地并再次起飞。

The Targets on List status condition is a method of defining that the platform still has mission or commanded targets on its target list. This allows the user to define differing responses for engagement completion, based on whether the platform still has targets on its target list.

列表中的目标状态条件是定义平台在其目标列表中仍有任务或指令目标的一种方法。这使用户能够根据平台是否在其目标清单上仍有目标，为交战完成定义不同的响应。

The Reached Max Shots Per CAP status condition is satisfied when the flight has shot the maximum number of weapons allowed by the Max Shots Per CAP parameter. The Max Shots Per CAP parameter is specified on the flight leader's Target Select Phase window. This status condition is only used by the Fighter ruleset type.

当飞行达到每CAP最大射击次数参数所允许的最大武器数量时，达到每CAP最大射击次数状态条件。每个CAP的最大发弹量参数是在领队的目标选择阶段窗口中指定的。这个状态条件只在战斗机规则集类型中使用。

The Exceeded Mission Time status condition is satisfied when a flight has exceeded its mission time. There are two main types of mission times. The first is known as the RTB Time and is a scenario time at which a flight is scripted to return to base. The RTB Time is specified on the flight leader's Edit Platform window. The second mission time is called the Max Mission Time and only applies to Fighter flights. The Max Mission Time is measured relative to the time at which a flight activates or scrambles from base. If the flight has been assigned from a CAP, it is measured relative to the time at which the CAP was initiated. The Max Mission Time is specified on the flight leader's Target Select Phase window.

当一个航班超过其任务时间时，超过任务时间的状态条件被满足。任务时间有两种主要类型。第一种被称为RTB时间，是一个场景时间，在这个时间里，飞行被脚本化地返回到基地。RTB时间是在编队长机的编辑平台窗口中指定的。第二个任务时间被称为最大任务时间，只适用于战斗机飞行。最大任务时间是相对于飞行激活或从基地起飞的时间而言的。如果飞行是由CAP分配的，它是相对于CAP启动的时间测量的。最大任务时间是在编队长机的目标选择阶段窗口中指定的。

A third and final mission time is also known as a CAP deactivation time. If a flight is on a CAP, reaches its end pattern waypoint, and the waypoint off-time is less than the current scenario time, then the Exceeded Mission Time trigger will be satisfied. In this case, the Exceeded Mission Time trigger is evaluated whenever the flight reaches its end pattern waypoint in Flight Processing.

第三个也是最后一个任务时间，也被称为CAP停用时间。如果一个航班处于CAP状态，到达其结束模式的航路点，并且航路点关闭时间小于当前情景时间，那么将满足超过任务时间的触发。在这种态势下，只要航班在飞行处理中到达其结束模式的航路点，就会评估超过任务时间的触发。

## 4.12.2.4 Engagement Status Conditions

4.12.2.4 交战状态条件

The Engagement Status conditions are:

交战状态的条件是：。

•                Lock on Target

- 锁定目标

•                Interceptors Requiring Guidance in Flight

- 需要在飞行中进行引导的干扰

•                Interceptor to ARM in Flight

- 干扰到飞行中的ARM

•                Intercepts Complete

- 拦截完成

•                TBM Threat

- TBM的威胁

•                Interceptor Available

- 可用的干扰

•                Authorized Tracks

- 授权的轨道

•                Assigned Tracks

- 分配的轨道

•                Threatening Tracks

- 威胁的轨迹

The Lock on Target status condition indicates that the platform evaluating its status is currently locked on a target. This condition allows the user to define responses for when a platform is locked on a target and when it is not locked on a target. For example, the user may not want to shut down sensors if they are being used to track an engagement.

锁定目标状态条件表明，评估其状态的平台目前被锁定在一个目标上。该条件允许用户定义当平台被锁定在目标上和未锁定在目标上时的响应。例如，如果传感器被用于跟踪交战，用户可能不希望关闭传感器。

The Interceptors Requiring Guidance in Flight status condition indicates that the platform evaluating its status currently has interceptors in the air to targets that require guidance.

飞行中需要制导的干扰状态表示评估其状态的平台目前有干扰在空中对需要制导的目标。

The Interceptor to ARM in Flight status condition indicates that the platform currently evaluating its triggers has interceptors in the air to an ARM target.

干扰到ARM的飞行状态条件表明，目前正在评估其触发器的平台有干扰在空中向ARM目标飞行。

The Intercepts Complete status condition is satisfied if the flight does not have any weapons in the air which require guidance. An example use of this status condition is for aircraft when determining if the aircraft has completed its mission and should return to base. Weapons that do not require guidance are smart weapons, weapons with active guidance, and free fall bombs.

如果该航班在空中没有任何需要引导的武器，则满足拦截完成状态条件。这个状态条件的一个例子是在确定飞机是否已经完成任务并应返回基地时使用。不需要制导的武器是智能武器、有主动制导的武器和自由落体导弹。

The TBM Threat status condition indicates that the platform evaluating its trigger conditions is currently threatened by a TM target.

TBM威胁状态条件表明，评估其触发条件的平台目前受到TM目标的威胁。

The Interceptors Available status condition indicates whether the platform can engage the threat or has subordinates available to engage the threat. In the case where no interceptors are available, the only reaction this platform has is through the User Rules phase; and in the case of an ARM alert, an appropriate reaction might be to shut down all emitters to protect the platform.

干扰可用状态条件表明该平台是否可以与威胁交战，或者是否有下属可以与威胁交战。在没有干扰可用的态势下，该平台的唯一响应是通过用户规则阶段；而在ARM警报的态势下，适当的响应可能是关闭所有发射器以保护该平台。

The Authorized Tracks status condition indicates that the platform currently evaluating its trigger conditions has tracks authorized for engagement in its trackfile. An authorized track is any track that the platform is capable of engaging based on the ruleset options. For the Flexible SAM and Flexible Commander rulesets, the track will be evaluated to determine if the target type is authorized for engagement under the current operational mode for self defense, asset defense, or zone defense without a determination of whether the track is currently a threat to self, a specific asset, or a specific zone.

授权轨道状态条件表明，目前正在评估其触发条件的平台在其轨道文件中拥有授权交战的轨道。授权轨道是指平台根据规则集选项能够交战的任何轨道。对于灵活SAM和灵活指挥官规则集，将评估轨道以确定目标类型是否在当前自卫、资产防御或区域防御的作战模式下被授权交战，而不确定该轨道目前是否对自身、特定资产或特定区域构成威胁。

The Assigned Tracks status condition indicates that the platform currently evaluating its trigger conditions has tracks assigned by its commander in its trackfile.

已分配轨道的状态条件表明，目前正在评估其触发条件的平台在其轨道文件中拥有由其指挥官分配的轨道。

The Threatening Tracks status condition indicates that the platform currently evaluating its status has threatening tracks in its trackfile. The Threatening Track status is only available for Flexible SAM and Flexible Commander rulesets and is considered any track that threatens the platform, any of its assets that are to be defended according to the current operational mode of the platform, or any associated zone if zone defense is selected on the current operational mode.

威胁轨道状态条件表明，目前正在评估其状态的平台在其轨道文件中存在威胁性轨道。威胁轨道状态仅适用于 "灵活SAM "和 "灵活指挥官 "规则集，它被认为是威胁到平台的任何轨道，以及根据平台当前作战模式要进行防御的任何资产，或任何相关区域（如果在当前作战模式上选择了区域防御）。

## 4.12.2.5 Named Status Condition

4.12.2.5 命名的状态条件

Named Status allows a user-defined status condition to be part of the trigger requirements. The Named Status conditions will be created as part of the response definition. The definition can be a string of up to 25 characters. An example would be a fighter initiating a defensive maneuver. The status condition might be FIGHTER\_MANEUVER. In evaluating subsequent trigger events, the Fighter might respond differently based on whether or not the FIGHTER\_MANEUVER status condition is set. If the trigger event was that the fighter was now within a specified distance of a commanded target, the response might be to point its sensors at the commanded target. However, the steering of the sensors might not be desired when the fighter is currently reacting to another platform.

命名状态允许用户定义的状态条件成为触发要求的一部分。命名状态条件将作为响应定义的一部分被创建。定义可以是一个最多 25 个字符的字符串。一个例子是一个战斗机启动了一个防御演习。状态条件可能是FIGHTER\_MANEUVER。在评估随后的触发事件时，战斗机可能会根据FIGHTER\_MANEUVER状态条件是否被设置而做出不同的响应。如果触发事件是战斗机现在在离一个指令目标的指定距离内，响应可能是将其传感器指向指令目标。 然而，当战斗机目前正在对另一个平台做出响应时，传感器的转向可能并不理想。

## 4.12.2.6 Platform-Object Geometry Status Condition

4.12.2.6 平台-物体的几何状态条件

Platform-object geometry checks can be used as both a trigger and status conditions. As a status condition, the volume is only evaluated once the main trigger condition has been satisfied. The use of Platform-object geometries are detailed in the platform-object geometry trigger section of this document.

平台-物体的几何检查可以作为触发条件和状态条件使用。作为一个状态条件，只有在主要的触发条件得到满足后才会对体积进行评估。平台-物体几何学的使用详见本文件的平台-物体几何学触发部分。

## 4.12.2.7 Weapon/System Status Condition

4.12.2.7 武器系统状态条件

The weapon/system status category will have a list of status conditions for weapon dependency. This allows the selection of a response based on the type of weapon being launched. This status will only be valid during sequences where a weapon has been selected for launch. The condition is satisfied if any of the weapons on the status list are being used for a launch. If a launch is neither pending nor in progress or else no weapon is found for a given launch, the status check fails. Both standard weapons and captive platform systems can be specified on the list. An example of using a weapon status condition would be if the platform is now performing a lock action against its target and is using a particular weapon, a corresponding sensor configuration might be adopted by the platform to guide the weapon to intercept.

武器系统状态类别将有一个武器依赖性的状态条件列表。这允许根据正在发射的武器类型来选择响应。这种状态只在选择了武器发射的序列中有效。如果状态列表上的任何武器正在被用于发射，则条件得到满足。如果发射既不是待定的，也不是正在进行的，或者没有找到用于特定发射的武器，则状态检查失败。标准武器和俘虏平台系统都可以在列表中指定。使用武器状态条件的一个例子是，如果平台现在正在对其目标进行锁定行动，并且正在使用一种特定的武器，那么平台可能会采用相应的传感器配置来引导武器进行拦截。

## 4.12.2.8 Target Classes of Interest Status Condition

4.12.2.8 目标利益类别的状态条件

When a trigger event is evaluated using the target classes of interest status condition, the true target class is used to constrain the trigger from being satisfied. Only triggers for platforms whose target’s class is matched in the class list will be satisfied. For example, if the platform is initiating a new local track on a particular target type, a corresponding response could be to enable a sensor with better classification abilities to recognize that target.

当使用感兴趣的目标类状态条件来评估触发器事件时，真正的目标类被用来约束触发器的满足。只有目标的类别在类别列表中被匹配的平台的触发事件才会被满足。例如，如果平台对一个特定的目标类型启动新的本地轨道，相应的响应可能是使具有更好的分类能力的传感器来识别该目标。

## 4.12.2.9 Aircraft Weapon Inventory Status Condition

4.12.2.9 飞机武器库存状况条件

Each time an aircraft expends a weapon, an action for weapon expended occurs. This event can be used as a trigger to check the aircraft weapon inventory. This status condition is satisfied when the flight has depleted its weapon inventory to a user-defined level. The inventory can be filtered so that only certain weapons are counted.

每次飞机消耗武器时，都会发生一个消耗武器的动作。这个事件可以作为一个触发器来检查飞机的武器库存。当航班将其武器库存耗尽到用户定义的水平时，这个状态条件就得到满足。库存可以被过滤，这样就只有某些武器被计算在内。

The weapon inventory filters include weapon count, target type, weapon range, and weapon PK. First, weapon count provides the flight with the ability to decide whether or not it has enough weapons to complete its mission. Second, the flight can use the target type filters to count weapons that are only viable against mission targets. Weapon range also can be used to sift out weapons with less than desirable range against these targets. Finally, weapon PK allows the flight to ignore weapons that are below a certain probability of kill.

武器库存过滤器包括武器数量、目标类型、武器范围和武器PK。首先，武器数量为飞行提供了决定它是否有足够的武器来完成任务的能力。其次，航班可以使用目标类型过滤器来计算那些只对任务目标可行的武器。武器射程也可以用来筛选出对这些目标射程不理想的武器。最后，武器PK允许航班忽略那些低于一定杀伤概率的武器。

## 4.12.2.10 Detected Emitter Status

4.12.2.10 检测到的发射器状态

The detected emitter status constrains a trigger based on the RF emitters detected in the track that is held on the target causing the trigger action. Specific radars, communication devices, and jammers may be selected. Selecting “Any Radar,” “Any ComDev,” or “Any Jammer” indicates that any emitter of the specified type satisfies the status condition.

检测到的发射器状态会根据在导致触发动作的目标上保持的轨道中检测到的射频发射器来制约触发。可以选择特定的雷达、通信设备和干扰器。选择 "任何雷达"、"任何通信设备 "或 "任何干扰器 "表示指定类型的任何发射器满足状态条件。

The “Yes/No” toggle option associated with the specific emitter or emitter type determines whether the emitter must or must not be detected on the track. The “And” toggle option specifies that all emitter checks must be satisfied, and the “Or” toggle option specifies that any emitter check can be satisfied to satisfy the status condition. If a specific compound sensor is selected as a detected emitter, the individual simple sensors that comprise the compound sensor are evaluated. If any constituent simple sensor is detected, the compound sensor has been detected; otherwise, the multimode radar is not considered as detected.

与特定发射器或发射器类型相关的 "YesNo "切换选项决定了发射器是否必须在轨道上被检测到。And "切换选项指定必须满足所有发射器检查，而 "Or "切换选项指定可以满足任何发射器检查以满足状态条件。如果一个特定的复合传感器被选为检测到的发射器，构成复合传感器的各个简单传感器将被评估。如果任何组成的简单传感器被检测到，则该复合传感器已被检测到；否则，多模式雷达不被视为检测到。

For example, consider the initiation of a specific jamming response only when a SAM’s acquisition radar has been detected but when its fire control radar has not been detected. When a trigger is initiated, the Detected Emitter Status Condition can be established with a “Yes” for the acquisition radar “And” a “No” for the fire control radar. If jamming were to be initiated solely based on detection of the fire control radar, the status condition would simply be set to “Yes” for the fire control radar without an entry for the acquisition radar.

例如，考虑到只有在探测到萨母的采集雷达但未探测到其火控雷达时，才启动特定的干扰响应。当触发时，检测到的发射器状态条件可以用采集雷达的 "是 "和火控雷达的 "否 "来确定。如果仅根据对火控雷达的探测来启动干扰，则状态条件只需将火控雷达设置为 "是"，而不需要对采集雷达进行输入。

Note that many event triggers, e.g., Activated, FenceCheck\_Wp\_Reached, etc., are not associated with a target. If the status condition is applied for those events, the status condition will fail, preventing the trigger’s response from being scheduled. If the event trigger is associated with a target, a check will be made to determine if track is held on the target. If a track exists on the target and all status conditions are satisfied, the response will be scheduled; otherwise the response will not be scheduled.

请注意，许多事件触发器，例如，激活、FenceCheck\_Wp\_Reached等，都没有与目标相关。如果对这些事件应用状态条件，状态条件将失败，阻止触发器的响应被安排。如果事件触发器与一个目标相关联，将进行检查以确定目标上是否有轨道。如果目标上存在轨道，并且所有的状态条件得到满足，响应将被安排；否则响应将不被安排。

## 4.12.2.11 Target Track/Track File Status

4.12.2.11 目标TrackTrack文件状态

The Target Track/Track File Status conditions are:

目标TrackTrack文件状态条件是。

•                Target Track File Status

- 目标目标轨迹文件状态

•                Target Track Status

- 目标轨道状态

•                Track File Status

- 目标轨迹文件状态

The Target Track File Status constrains a trigger based on whether track held on a target associated with the trigger is found in the Main Track File, the Ground Track File, the Signal Track File, or the NBC Track File. Note from Methodology Manual section 4.6 that a track will be stored in one of the Main, Ground, or NBC track files based on ruleset and track type considerations. A track in the Main or Ground Track File may also be stored in the Signal Track File if a passive RF sensor has detected the track.

目标轨迹文件状态根据与触发有关的目标上的轨迹是否在主轨迹文件、地面轨迹文件、信号轨迹文件或核生化轨迹文件中找到，对触发进行约束。请注意《方法手册》第4.6节，根据规则集和轨道类型的考虑，轨道将被存储在主轨道文件、地面轨道文件或核生化轨道文件中的一个。如果无源射频传感器探测到轨道，主轨道文件或地面轨道文件中的轨道也可能被储存在信号轨道文件中。

The Target Track Status constrains a trigger based on the sensor class or the specific type of sensor that has updated the track. This sensor source information is only available for detections by local sensors. A scroll list allows the user to specify a sensor type or sensor class that was used to update the track. In the “Det” column, the “Yes” option specifies that the selected sensor type or sensor class must have detected the track.

目标轨迹状态根据更新了轨迹的传感器类别或特定类型的传感器来限制触发。该传感器源信息仅适用于本地传感器的探测。通过滚动列表，用户可以指定用于更新轨道的传感器类型或传感器类别。在 "确定 "一栏中，"是 "选项指定所选的传感器类型或传感器类别必须已经探测到该轨道。

The “No” option specifies that the selected sensor type or class must not have detected or must no longer be detecting the track. The “And” toggle option specifies that all sensor checks must be satisfied, and the “Or” toggle option specifies that any sensor check can be satisfied to satisfy the status condition. If a specific compound sensor is selected as a local sensor source, the individual simple sensors that comprise the compound sensor are evaluated. If any constituent simple sensor is detected, the compound sensor has been detected; otherwise, the multimode radar has not been detected.

不 "选项指定所选传感器类型或类别必须没有检测到或必须不再检测到轨道。和 "切换选项指定必须满足所有传感器检查，而 "或 "切换选项指定可以满足任何传感器检查以满足状态条件。如果一个特定的复合传感器被选为本地传感器源，构成复合传感器的各个简单传感器将被评估。如果任何组成的简单传感器被检测到，则该复合传感器已被检测到；否则，多模式雷达未被检测到。

For each track file, the Track File Status constrains a trigger based on the number of tracks stored in that track file that meet a sensor source/track type threshold. The scroll list contains specific sensor types, sensor classes, and track type (e.g., Local Track). For example, if the “Radar” sensor class entry is selected with a count of 5, then at least five tracks in the selected track file must have been updated by radars in order to satisfy the trigger. If the “Local Track” track type entry is selected with a count of 10, then there must be at least ten tracks in the selected track file that have been detected by a local sensor.

对于每个轨道文件，轨道文件状态根据存储在该轨道文件中符合传感器源-轨道类型阈值的轨道数量来约束触发。滚动列表中包含具体的传感器类型、传感器类别和轨迹类型（例如，本地轨迹）。例如，如果 "雷达 "传感器类别条目被选中，计数为5，那么所选轨迹文件中至少要有5条轨迹被雷达更新，才能满足触发条件。如果 "本地轨道 "轨道类型条目被选中，计数为10，那么在选定的轨道文件中必须至少有10个轨道被本地传感器探测到。

An additional option specifies the number of tracks that must be updated by specific sensor types to satisfy the Track File status condition. The “And” toggle option specifies that all counts must be satisfied, and the “Or” toggle option specifies that any count meeting the threshold will satisfy the status condition. If a specific compound sensor is selected as a specific sensor type, detections from the multiple, individual simple sensors that comprise the compound sensor are counted as a single detection from the compound sensor.

一个额外的选项指定了必须由特定传感器类型更新的轨道数量以满足轨道文件状态条件。和 "切换选项指定必须满足所有计数，而 "或 "切换选项指定任何满足阈值的计数将满足状态条件。如果一个特定的复合传感器被选为特定的传感器类型，那么构成复合传感器的多个单独的简单传感器的检测被算作复合传感器的一个检测。

## 4.12.2.12 Probability of Reaction

4.12.2.12 响应的概率

The probability of reaction is the last item evaluated on the trigger. Once all other conditions have been met, a draw is performed to determine if the platform will execute its response. If there is a target associated with the trigger being evaluated, a check will be made to determine if track is currently held on the target. If track is held on the target, the Probability of Reaction In Track value will be used, otherwise, the Probability of Reaction Not In Track value will be used. If randomness has been eliminated, the User Rules response will always pass the probability of reaction.

响应的概率是触发器上最后评估的项目。一旦所有其他条件得到满足，就会进行抽签以确定平台是否会执行其响应。如果有一个与正在评估的触发器相关的目标，将进行检查以确定目标上目前是否有轨道。如果目标上有轨道，将使用轨道内响应概率值，否则，将使用非轨道内响应概率值。如果随机性已被消除，用户规则响应将总是通过响应概率。

For example, if the platform is currently in launch phase and a trigger occurs indicating it is running low on fuel, the platform may decide to not execute any reaction. However, when intercepts have completed and the platform is low on fuel, the platform might now execute the response to return to its home base.

例如，如果平台目前处于发射阶段，而发生的触发显示其燃料不足，平台可能决定不执行任何响应。然而，当拦截完成后，平台的燃料不足时，平台现在可能会执行响应，返回其基地。

# 4.12.3 User Rules Responses

4.12.3 用户规则的响应

Once all conditions for a trigger have been met, the corresponding User Rules response has been triggered and will be initiated. The user can select the timing of when the response should begin. The available responses are as follows:

一旦触发的所有条件得到满足，相应的用户规则响应就被触发，并将被启动。用户可以选择响应开始的时间。可用的响应如下。

·       Activation of Emitter Decoys

- 发射器诱饵的激活

·       Activation of Towed Decoys

- 激活拖曳式诱饵

·       Local and Formation-Based Sensor Control

- 基于本地和编队的传感器控制

·       Commanded Sensor Control

- 命令式传感器控制

·       Local Communications Device Control

- 本地通信设备控制

·       Local Jammer Control

- 本地干扰器控制

·       Network Performance Adjustment

- 网络性能调整

·       Target Select Phase Control

- 目标选择相位控制

·       Jamming Priorities

- 干扰的优先次序

·       Emitter Cycle Time

- 发射器周期时间

·       RCS Transition

- RCS过渡期

·       MOPP Transition

- MOPP过渡期

·       Change EMCON Authority Status

- 改变EMCON授权状态

·       Platform-Object Geometry Checks

- 平台-对象的几何检查

·       Generate ARM Alert

- 产生ARM警报

·       Generate Jamming Alert

- 产生干扰警报

·       Generate Sensor Alert

- 产生传感器警报

·       Alternate Commander Selection

- 候补指挥官的选择

·       Adjust Desired Overall DFD

- 调整理想的整体DFD

·       Adjust Desired Target DFD

- 调整预期目标DFD

·       IFF Interrogation

- IFF 审讯

·       Delete Tracks

- 删除轨迹

·       Named Status

- 命名状态

·       Named Trigger

- 命名的触发器

·       Flight Options

- 飞行选择

·       Platform Destruction

- 平台破坏

·       Launch Weapon

- 发射武器

·       Detonate Weapon

- 引爆武器

·       Change PTL

- 改变PTL

·       Partial Reload Authorization

- 部分重新加载授权

## 4.12.3.1 Activation of Emitter Decoys

4.12.3.1 发射器诱饵的激活

Activation of emitter decoys provides the capability to activate all emitter decoys or a single emitter decoy associated with the Flexible SAM or the Flexible Commander. If a single decoy is to be activated, the user specifies if the decoy with the shortest or longest range is to be selected. When an emitter decoy is activated, all emitters on the decoy are turned on. At the end of the decoy duration time, the emitter decoy is deactivated.

激活发射器诱饵提供了激活所有发射器诱饵或激活与灵活SAM或灵活指挥官相关的单一发射器诱饵的能力。如果要激活单个诱饵，用户可以指定是选择射程最短还是最长的诱饵。当一个发射器诱饵被激活时，诱饵上的所有发射器都被打开。在诱饵持续时间结束时，发射器诱饵被停用。

## 4.12.3.2 Activation of Towed Decoys

4.12.3.2 激活拖曳式诱饵

Activation of towed decoys provides the capability for an aircraft to deploy, retract or sever towed decoys. The response specifies a preference of retractable or expendable decoy type and a desired deploy length. If an expendable decoy is active, a response containing a deployment length of 0.0 meters will cause the decoy to be severed.

激活拖曳式诱饵为飞机提供了部署、缩回或切断拖曳式诱饵的能力。响应指定可伸缩或可消耗的诱饵类型的偏好和所需的部署长度。如果消耗性诱饵处于激活状态，包含0.0米部署长度的响应将导致诱饵被切断。

## 4.12.3.3 Local and Formation-Based Sensor Control

4.12.3.3 基于本地和编队的传感器控制

Sensor control provides the capability to control all sensors at the same time or to specify selected sensor control. If all sensors are selected, the user can turn all sensors on or off. Selected sensor control provides the capability to specify individual sensors with the desired status change.

传感器控制提供了同时控制所有传感器或指定选定传感器控制的能力。如果选择了所有传感器，用户可以打开或关闭所有传感器。选定的传感器控制提供了以所需的状态变化来指定个别传感器的能力。

When selected sensors are specified, the ability to control the pointing mode, operational mode, and steering method is given. Additionally, the user can specify the azimuth and elevation field of view, azimuth and elevation pointing angles, and pulse repetition frequency. The sensor may be specified to use its burnthrough waveform (defined by the advance radar modeling burnthrough sector parameters) or the default waveform.

当指定选定的传感器时，就能控制指向模式、操作模式和转向方法。此外，用户可以指定方位角和仰角的视场、方位角和仰角的指向角以及脉冲重复频率。 可以指定传感器使用其穿透波形（由预先雷达建模穿透扇形参数定义）或默认波形。

Multiple options exist for the steerage of the specified sensor. The sensor can be mechanically steered to the desired pointing angles based on the user-specified slew rate defined for the sensor or the sensor can be instantaneously steered to the specified direction. An example of instantaneous steering would be the electronic steering of a sector within a phased array radar. The sensor pointing can be default, absolute, relative, track a target, or pointed to a target.

对于指定传感器的转向，存在多种选择。传感器可以根据用户定义的回转率机械地转向到所需的指向角度，或者传感器可以瞬间转向到指定的方向。瞬时转向的一个例子是相控阵雷达内一个扇区的电子转向。传感器的指向可以是默认的、绝对的、相对的、跟踪目标的、或指向目标的。

The default pointing returns the sensor back to the defined pointing mode of the sensor. Absolute pointing and relative pointing are equivalent to their definitions for the sensor pointing throughout EADSIM. The option to track a target will continually change the sensor pointing in order to follow the target. The sensor will continue to follow the target until another response changes the sensor pointing mode. The option to point at a target will change the sensor pointing to the target’s currently location and then stays at that position until another response changes the sensor pointing.

默认的指向性使传感器返回到传感器的定义指向模式。绝对指向和相对指向等同于它们在整个EADSIM中对传感器指向的定义。跟踪目标的选项将不断地改变传感器的指向，以跟踪目标。传感器将继续跟踪目标，直到另一个响应改变传感器的指向模式。指向目标的选项将改变传感器指向目标的当前位置，然后保持在该位置，直到另一个响应改变传感器的指向。

With the point at and track a target options, the sensor pointing can be adjusted in azimuth only or in azimuth and elevation. If using the track or point at a target option, the sensor can be pointed at the main target, the centroid of the group of targets for the response, or the center of the group of targets for the response. The centroid and center options yield the single target if the response is to a single target. The centroid option steers to the average location of all targets within the group. The center option will steer to the midpoint of the group based on the minimum and maximum azimuth and the minimum and maximum elevation within the group.

使用指向目标和跟踪目标选项，可以仅在方位角或方位角和仰角中调整传感器的指向。如果使用跟踪或指向目标选项，传感器可以指向主要目标、响应的目标组的中心点，或响应的目标组的中心。如果是对单一目标的响应，中心点和中心选项产生单一目标。中心点选项引导到该组中所有目标的平均位置。中心选项将根据组内的最小和最大方位角以及最小和最大仰角转向该组的中点。

If the emitter cycle time option is not selected, the sensor is available for repointing one interval after it attempts to detect the target. If an emitter cycle time is given, on/off responses are reversed at the end of the cycle time.

如果没有选择发射器周期时间选项，则传感器在尝试探测到目标后的一个间隔时间内可进行重新定位。如果给定了发射器周期时间，则在周期时间结束时，开关响应会被反转。

The option to use formation-based sensor control allows the definition of the sensor configuration of all platforms in a flight. For example, a flight of fighters might utilize a response to point sensors. The flight leader might point his sensors to the east while the wingmen look to the west. Or, the flight leader might point his sensors to search high altitudes while the wingmen search lower altitudes. The formation-based sensor control definition allows definition of sensors for each position in the flight.

使用基于编队的传感器控制的选项允许定义一个飞行中所有平台的传感器配置。例如，一个战斗机航班可能利用响应点传感器。领队可能将他的传感器指向东方，而僚机则指向西方。或者，编队长机可能将他的传感器指向高空搜索，而僚机则搜索低空。基于编队的传感器控制定义允许对飞行中每个位置的传感器进行定义。

## 4.12.3.4 Commanded Sensor Control

4.12.3.4 命令式传感器控制

The commanded sensor control response provides the capability to manage the level of sensor coverage provided over the platform's area of responsibility, in this case track area of interest. The platform executing this response has the capability to dynamically change the level and sources of sensor coverage in reaction to the assessed situation. The execution of this response is to add or drop sensor coverage to achieve a level of coverage. This response is generally executed in response to the loss of sensors from jamming, sensors shutting down in reaction to ARMs, or sensors becoming available after a reaction.

命令式传感器控制响应提供了管理在平台责任区提供的传感器战斗机交战区水平的能力，在这种态势下是指感兴趣的跟踪区。执行该响应的平台有能力根据评估的态势动态地改变传感器战斗机交战区的水平和来源。执行这一响应是为了增加或减少传感器的战斗机交战区，以达到一定的战斗机交战区水平。这种响应的执行通常是为了应对干扰造成的传感器损失、传感器因ARMs的响应而关闭，或传感器在响应后变得可用。

### 4.12.3.4.1 Surveillance Responsibility Grid

4.12.3.4.1 监督责任网

The surveillance responsibility grid provides the framework for evaluating the current surveillance cover level and determining which sensor or sensors need to be turned on or off. The grid is defined by user-specified latitude and longitude intervals for emissions control. The grid is established by evaluating all of the Track Areas of Interest (TAIs) associated with the platform. The grid extends from the minimum latitude to the maximum latitude of any point in the TAIs. Similarly, it extends from the minimum longitude to the maximum longitude of any point in the TAIs.

监视责任网格提供了评估当前监视战斗机交战区水平的框架，并确定需要打开或关闭哪个或哪些传感器。该网格由用户指定的经纬度间隔来定义，用于控制排放。网格是通过评估与平台相关的所有感兴趣的轨道区域（TAIs）建立的。网格从TAIs中任何一点的最低纬度延伸到最高纬度。同样地，它也从TAIs中任何一点的最小经度延伸到最大经度。

Each grid square represents the level of sensor coverage in that grid square. A 0 denotes that the grid square is outside of any currently active TAIs. A 1 denotes that the grid square is inside an active TAI; however, the number of sensors covering that grid square is 0. If the grid square has a number N greater than one, then there is N - 1 sensor coverage in that grid square.

每个网格方块代表该网格方块的传感器战斗机交战区水平。0表示该网格方块在任何当前活动的TAI之外。1表示该网格方块在一个活动的TAI内；然而，战斗机交战区该网格方块的传感器数量为0。如果该网格方块的数字N大于1，那么该网格方块就有N-1个传感器战斗机交战区。

At initialization and each time a TAI turns on or off, the surveillance responsibility grid must be initialized. The first step is to loop through the grid and compare each grid square with the currently active TAIs. Each grid square within an active TAI is initialized to 1, meaning this platform has responsibility for that grid square.

在初始化和每次TAI开启或关闭时，必须初始化监视责任网格。第一步是对网格进行循环，并将每个网格方块与当前活动的TAI进行比较。在一个活跃的TAI内的每个网格方块被初始化为1，意味着这个平台对该网格方块有责任。

By this point, the initialization process has established two lists of sensors. One list is the user-specified list of external surveillance platforms. The second list contains all sensors that can be commanded by the platform, including all independent search sensors that can trace their command chain back to this platform. The grid initialization routine loops through each of these lists and adds the sensor coverage of each sensor that is currently on to the surveillance grid. Adding a sensor to the grid is described in Subsection 4.12.3.4.4. Once all of the sensor's coverage has been added to the grid, the responsibility grid initialization is complete.

到此为止，初始化过程已经建立了两个传感器的列表。一个列表是用户指定的外部监视平台的列表。第二个列表包含所有可由平台指挥的传感器，包括所有可将其指挥链追溯到该平台的独立搜索传感器。网格初始化程序循环浏览这些列表中的每一个，并将目前在监视网格上的每个传感器的战斗机交战区范围添加到监视网格中。在4.12.3.4.4小节中描述了将传感器添加到网格中。一旦所有传感器的战斗机交战区范围都被添加到网格中，责任网格初始化就完成了。

### 4.12.3.4.2 Adding Sensor Coverage

4.12.3.4.2 增加传感器战斗机交战区范围

When adding sensor coverage, the available sensors are prioritized and selected. The first-order sort is to add a sensor from those selected as the highest priority by the user. If different types of sensors are at the same priority, then it is assumed that there is no preference for one over the other. From among the sensors that are not on, sensors that are off because of reactions to ARMs for which the ARM reaction time-out has not expired are not commanded to turn on. Among the remaining sensors, the surveillance grid is queried for each sensor. The sensor that will provide the most coverage when checking for an additional sensor is commanded to turn on. The process is repeated until the desired coverage level is reached or there are no sensors that will contribute to attaining the desired coverage level.

在添加传感器战斗机交战区范围时，对可用的传感器进行优先排序和选择。首要的排序是在用户选择的最优先的传感器中添加一个传感器。如果不同类型的传感器处于相同的优先级，那么就假定不存在一个比一个优先的态势。从未开启的传感器中，由于对ARM的响应而关闭的传感器，如果ARM的响应超时未过，则不命令其开启。在剩下的传感器中，对每个传感器的监视网格进行查询。在检查其他传感器时，将提供最大的战斗机交战区范围的传感器被命令打开。该过程重复进行，直到达到所需的战斗机交战区水平或没有有助于达到所需战斗机交战区水平的传感器。

### 4.12.3.4.3 Dropping Sensor Coverage

4.12.3.4.3 掉落传感器的战斗机交战区范围

When dropping sensor coverage, sensors that are currently on are prioritized and selected. The first-order sort is to drop a sensor from those selected by the user as the lowest priority. From among these sensors, the sensor that will provide the least drop in coverage is removed first (i.e., commanded to turn off). The process is repeated until removing the next sensor would result in a coverage level below that desired.

在放弃传感器战斗机交战区范围时，对当前开启的传感器进行优先排序和选择。第一顺序的排序是，从用户选择的那些优先级最低的传感器中删除。在这些传感器中，将提供最少的战斗机交战区率下降的传感器首先被移除（即被命令关闭）。这个过程重复进行，直到移除下一个传感器会导致战斗机交战区率低于所需的水平。

### 4.12.3.4.4 Editing/Querying the Surveillance Grid

4.12.3.4.4 编辑查询监控网格

The surveillance responsibility grid must be edited any time sensor coverage is added or dropped by the commander. This can occur at initialization as the result of sensor status messages, sensor command messages, or lack of status messages from a sensor. The grid must also be queried when evaluating the current coverage level to evaluate the effect of adding or dropping a specific sensor. These surveillance grid maintenance items are handled through a single grid maintenance function. A second utility function is used to query the grid for the percentage coverage at the desired level.

在指挥官增加或取消传感器战斗机交战区范围时，必须对监视责任网格进行编辑。这可能发生在初始化时，因为传感器状态信息、传感器命令信息或缺乏来自传感器的状态信息。在评估当前的战斗机交战区水平时，也必须对网格进行查询，以评估增加或放弃一个特定传感器的效果。这些监视网格维护项目是通过一个单一的网格维护功能来处理的。第二个实用功能是用来查询网格在所需水平的战斗机交战区百分比。

This function currently supports calls for four reasons. If it is called to add a sensor, the given sensor's coverage is incremented in every grid square for which it has overlap and the platform is responsible. For this case, it provides the calling function with the number of grid squares of coverage added. If it is called to drop a sensor, the given sensor's coverage is decremented in every grid square for which it has overlap and the platform is responsible. The number of grid squares removed is returned in this case. If it is called to check coverage for a sensor, the responsibility grid is only sampled, not modified. If checking for the addition of a sensor, only grid squares that are covered by the sensor, are under the responsibility of the platform, and are not already covered at the desired level are counted and returned. If checking for the deletion of a sensor, only grid squares that are covered by the sensor, are under the responsibility of the platform, and will not drop below the desired level are counted and returned.

这个函数目前支持四个原因的调用。如果它被调用来添加一个传感器，给定的传感器的战斗机交战区范围在它有重叠的每个网格方格中都会被增加，并且平台负责。对于这种态势，它向调用函数提供所增加的战斗机交战区的网格方格数。如果它被调用以放弃一个传感器，给定的传感器的战斗机交战区率在它有重叠的每个网格方格中被递减，平台负责。在这种态势下，会返回被移除的格子数。如果它被调用来检查一个传感器的战斗机交战区率，责任网格只被抽样，不被修改。如果检查增加一个传感器，只计算并返回被传感器战斗机交战区的、由平台负责的、还没有被战斗机交战区到所需水平的方格。如果检查删除一个传感器，只计算并返回被传感器战斗机交战区的、由平台负责的、不会下降到所需水平以下的网格方块。

The second utility function simply loops over the entire responsibility grid. The number of grids for which the platform is responsible is counted. The grids for which the platform has the desired cover level are also counted. This defines the percentage of sensor coverage at the desired level. This value is only an approximate value subject to the granularity of the surveillance grid latitude and longitude intervals.

第二个效用函数简单地在整个责任网格上循环。该平台负责的网格数量被计算出来。该平台具有所需战斗机交战区水平的网格也被计算在内。这定义了传感器在所需水平上的战斗机交战区百分比。这个值只是一个近似值，受监视网格经纬度间隔的粒度限制。

## 4.12.3.5 Communications Device Control

4.12.3.5 通信设备控制

Communications device control provides the capability to control all communications devices at the same time or to specify selected communications device control. If the All Communication Devices option is selected, the status of all communications devices on the platform will be affected. There is also the option to specify the desired status change for individual communications devices. Setting the status to Off stops the device from transmitting and receiving messages. Setting the status to On allows the transmission and reception of messages. Setting the status to Rx Only prevents a communication device from being able to transmit messages, however, it is still capable of receiving messages. If an emitter cycle time is given, the response is reversed at the end of the cycle time.

通信设备控制提供了同时控制所有通信设备或指定选定通信设备控制的能力。如果选择所有通信设备选项，平台上所有通信设备的状态都会受到影响。还有一个选项是为单个通信设备指定所需的状态变化。将状态设置为 "关闭"，可以停止设备的信息传输和接收。 将状态设置为 "开"，可以传输和接收信息。将状态设置为Rx Only可以阻止通信设备传输信息，但是，它仍然能够接收信息。如果给出了发射器的周期时间，那么在周期时间结束时，响应会被逆转。

## 4.12.3.6 Jammer Control

4.12.3.6 干扰器控制

Jammer control provides the capability to control all jammers at the same time or to specify selected jammer control. If all jammers is selected, the user can turn all jammers on or off. Selected jammer control provides the capability to specify individual jammers with the desired status change. If an emitter cycle time is given, the response is reversed at the end of the cycle time.

干扰器控制提供了同时控制所有干扰器或指定选择干扰器控制的能力。如果选择所有干扰器，用户可以打开或关闭所有干扰器。选定的干扰器控制提供了指定个别干扰器的能力，使其具有所需的状态变化。如果给定了发射器的周期时间，那么在周期时间结束时，响应就会反过来。

## 4.12.3.7 Network Performance Adjustment

4.12.3.7 网络性能调整

The network performance user rules response allows the baud rate and relay delay associated with a particular network to be adjusted to the user specified values upon execution of the response. Networks are specified by selecting protocols. The performance of all networks associated with user specified protocols and with the responding platform is adjusted. All platforms on the networks are impacted by the performance adjustment since the baud rate and relay delay are specified at the network level. Duplex networks can be used if the desire is to only impact the connection between two platforms. The adjustment of the baud rate and relay delay via execution of the baud rate user rules response are logged to post processing as URULE\_Adjust\_Baud\_Rate and URULE\_Adjust\_Relay\_Delay respectively. The new baud rate and relay delay values are logged to post processing with these actions and printed in the action history report under the “Against Platforms” column.

网络性能用户规则响应允许在执行响应时将与特定网络相关的波特率和中继延迟调整为用户指定的值。通过选择协议来指定网络。与用户指定的协议和响应平台相关的所有网络的性能被调整。网络上的所有平台都受到性能调整的影响，因为波特率和中继延迟是在网络层面指定的。如果希望只影响两个平台之间的连接，可以使用双工网络。通过执行波特率用户规则响应来调整波特率和中继延迟，分别作为URULE\_Adjust\_Baud\_Rate和URULE\_Adjust\_Relay\_Delay记录到后期处理。新的波特率和中继延迟值与这些操作一起被记录到后期处理中，并在操作历史报告的 "针对平台 "栏下打印出来。

## 4.12.3.8 Target Select Phase Control

4.12.3.8 目标选择相位控制

The Target Select Phase Control response allows scheduling and deactivation of the air and ground target selection phases in response to any user-defined trigger. For example, a ground-capable fighter’s Air Target Select phase may be canceled when the fighter enters an engage profile for a ground target. This prevents the fighter from leaving the profile to engage an air target until the engagement is complete. The user may select as a response to either cancel or schedule the Air Target Select phase and to either cancel or schedule the Ground Target Select phase.

目标选择阶段控制响应允许对空中和地面目标选择阶段进行调度和停用，以响应任何用户定义的触发。例如，一架具有地面能力的战斗机的空中目标选择阶段可以在该战斗机进入地面目标的交战剖面时被取消。这可以防止战斗机在交战完成之前离开该剖面图来与空中目标交战。用户可以选择取消或安排空中目标选择阶段以及取消或安排地面目标选择阶段作为回应。

If the defined response is to schedule a target select phase that is currently running, the response is ignored. If the user selects to cancel a target select phase, an additional option is available to keep the phase from being rescheduled. Selecting this option keeps the specified target select phase from being rescheduled at one of the default times, such as when an engagement is complete. The phase will only be rescheduled through the definition of another User Rules trigger with a response to schedule the phase.

如果定义的响应是安排一个目前正在运行的目标选择阶段，则该响应被忽略。如果用户选择取消一个目标选择阶段，有一个额外的选项可以保持该阶段不被重新安排。选择这个选项可以使指定的目标选择阶段不被重新安排在一个默认的时间，比如说当一个交战完成时。该阶段只能通过定义另一个用户规则触发器来重新安排，并对该阶段进行响应。

## 4.12.3.9 Jamming Priorities

4.12.3.9 干扰优先级

The Jamming Priorities provides the capability to dynamically change or set the priority for specified threats that have a defined relationship to the detected transmitter. The options for this response specify platforms that have a relationship to the target associated with the User Rules trigger, including the target’s commander, subordinates, and linked platforms, where linked platforms are defined to be platforms networked to the target. When accessing linked platforms, this design assumes perfect knowledge by the Intelligence Preparation of the Battlefield (IPB). Therefore all relationships are determined from truth.

干扰优先级提供了动态改变或设置与被检测到的发射机有定义关系的指定威胁的优先级的能力。该响应的选项指定了与用户规则触发器相关的目标有关系的平台，包括目标的指挥官、下属和链接平台，其中链接平台被定义为与目标联网的平台。在访问链接平台时，这种设计假设战场情报准备（IPB）拥有完美的知识。因此，所有的关系都是根据事实确定的。

In addition to selecting threats based on their relationship to the detected platform, three filters are available. An optional Range Filter limits selection of related threats to only those within a fixed slant range of the target associated with the User Rule trigger. Second, if initiated by a Message Interception Trigger, a Same Network restriction on the Linked Platform option restricts the selected Linked Platforms to only those that are on the same network link as the target from which messages were intercepted. Third, a Classes of Interest list restricts the selection of threats to those that meet the class criteria.

除了根据威胁与被检测平台的关系来选择威胁外，还有三个过滤器可用。一个可选的范围过滤器将相关威胁的选择限制在与用户规则触发器相关的目标的固定斜面范围内。第二，如果由信息拦截触发器发起，对关联平台的同一网络限制选项将所选关联平台限制在与信息被拦截的目标处于同一网络链接的平台。第三，兴趣类别列表将威胁的选择限制在符合类别标准的范围内。

If the target associated with the User Rules trigger is being tracked by the platform evaluating the User Rules trigger, the Classes of Interest list is based on truth or perception based on the setting of Target Class Knowledge. Otherwise, the list is evaluated based on truth.

如果与用户规则触发器相关的目标被评估用户规则触发器的平台跟踪，那么兴趣类别列表是基于真相或基于目标类别知识的设置的感知。否则，该列表是基于真相进行评估的。

Any threats selected through the Jamming Priorities option will be inserted into the User Rules jammer target list. If the threat is also held in the Signal Track File, the dynamic Jamming Priorities overrides the Jammer Control phase priorities. The same prioritization convention for Jamming Priorities is used as defined for the standard Jammer Control prioritization with the exception of the priority “OFF.” The difference in a priority of “OFF” and a priority of 0 is that “OFF” removes a target from the User Rules jammer target list and restores the default prioritization scheme controlled by the Jammer Control phase.

任何通过 "干扰优先级 "选项选择的威胁都将被插入 "用户规则 "干扰器目标列表中。如果威胁也被保存在信号轨迹文件中，动态干扰优先级就会优先于干扰器控制阶段的优先级。干扰优先级的优先级惯例与标准干扰器控制优先级的定义相同，但优先级 "关闭 "除外。优先级 "OFF "和优先级 "0 "的区别在于，"OFF "会从用户规则干扰器目标列表中删除目标，并恢复由干扰器控制阶段控制的默认优先级方案。

This means that the threat would again be prioritized according to its class entry in the Jammer Control Classes of Interest list if an entry were specified. A priority of 0 makes the threat ineligible for jamming evaluation but does not remove it from the User Rules jammer target list. This provides a way to dynamically completely disable jamming against a target if so desired.

这意味着，如果指定了一个条目，威胁将再次根据其在干扰者控制兴趣类别列表中的类别条目进行优先排序。优先级为 0 时，该威胁就没有资格进行干扰评估，但不会从用户规则干扰器目标列表中删除。这提供了一种方法，如果需要的话，可以动态地完全禁止对目标进行干扰。

If the target class of a threat selected for jamming by the User Rules Jamming Priorities response also exists in the Jammer Control Phase, the threat must be within the Jammer Control Threat Range in order to be jammed. Otherwise if the threat class is not listed in the Jammer Control Phase Classes of Interest list, there is no default range at which jamming is restricted.

如果用户规则干扰优先级响应所选择的干扰威胁的目标类别也存在于干扰器控制阶段，则该威胁必须在干扰器控制威胁范围内，才能被干扰。否则，如果威胁类别没有列在干扰器控制阶段的兴趣类别列表中，就没有限制干扰的默认范围。

A User Rules Platform Object Geometry trigger can be defined to enable or disable jamming based on a number of geometric parameters, including range. A single Platform Object Geometry definition can simultaneously be applied to multiple platform- target pairs in order to enable or disable jamming against specific threats based on specific geometries.

可以定义一个用户规则平台对象几何触发器，根据一些几何参数（包括范围）来启用或禁用干扰。一个单一的平台物体几何定义可以同时应用于多个平台-目标对，以便根据特定的几何参数启用或禁用对特定威胁的干扰。

Another capability supplied by the dynamic jammer prioritization is the ability to restrict jamming to a specific emitter or emitter type. Suppose a case where an aircraft has two onboard jammers, one valid against the threat’s communication devices and another valid against the threat’s radars. In order to be as covert as possible, the operator may desire to only enable the comm jammer. Only when the operator ascertains that comm jamming is ineffective would he choose to enable the radar jammer.

动态干扰器优先级的另一个能力是将干扰限制在特定的发射器或发射器类型。假设一架飞机有两个机载干扰器，一个对威胁的通信设备有效，另一个对威胁的雷达有效。为了尽可能的隐蔽，操作员可能希望只启用通讯干扰器。只有当操作员确定通讯干扰无效时，他才会选择启用雷达干扰器。

Under the default capability, once a threat has been selected, then both jammers would be selected simultaneously, one for each type of emitter. Another case would be where an acquisition radar and fire control radar were both modeled on the same platform. Under the default capability, if both radars were detected and the jammer had capability against each radar, then jammer beams would be allocated toward each radar. There would be no option to ignore the acquisition radar and reserve power for only jamming the fire control radar.

在默认能力下，一旦选择了一个威胁，那么两个干扰器将同时被选择，每个类型的发射器都有一个。另一种态势是，采集雷达和火控雷达都在同一平台上建模。在默认能力下，如果两个雷达都被探测到，并且干扰器有能力对付每个雷达，那么干扰器的光束将被分配给每个雷达。没有选项可以忽略采集雷达，只保留干扰火控雷达的能力。

An additional column will be added to the Classes of Interest lists on the Jamming Control Phase and the User Rules Jamming Priorities response that specifies which Emitter is selected for jamming. For a specific class of interest, if a specific radar is selected, then the jamming prioritization is assigned only to the specified radar on the selected target(s) of the defined class.

在 "干扰控制阶段 "和 "用户规则干扰优先级响应 "的 "兴趣类别 "列表中，将增加一个额外的栏目，指定选择哪个发射器进行干扰。对于一个特定的兴趣类别，如果选择了一个特定的雷达，那么干扰优先级只分配给该定义类别的选定目标上的指定雷达。

In the same way, if a specific communication device is selected, the jamming prioritization is assigned only to the specific comm emitter. If “All Radars” is selected, then all radars on that threat are eligible for jamming, but not comm devices. If “All ComDevs” is selected, then all communication devices on that threat are eligible for jamming, but not radars. If “Default” is selected, then the default capability is performed, i.e., all emitters on the selected class of interest are eligible for jamming.

同样，如果选择了特定的通信设备，干扰的优先级只分配给特定的通信发射器。如果选择了 "所有雷达"，那么该威胁上的所有雷达都有资格被干扰，但不包括通讯设备。如果选择 "所有通讯设备"，那么该威胁上的所有通讯设备都有资格受到干扰，但不包括雷达。如果选择 "默认"，则执行默认能力，即所选兴趣类别上的所有发射器都有资格进行干扰。

Note that the same class of interest may be listed multiple times so that specific emitters can be selected. Also note that if a specific compound sensor is selected, the individual simple sensors that comprise the compound sensor are prioritized for jamming; however, it is likely that only a single beam would be allocated for the multimode radar given that each constituent simple sensor is collocated and presumably at the same frequency.

请注意，同一利益类别可以被多次列出，以便选择特定的发射器。还要注意的是，如果选择了特定的复合传感器，组成复合传感器的各个简单传感器将优先受到干扰；但是，鉴于每个组成的简单传感器都在一起，而且可能在同一频率上，所以很可能只为多模雷达分配一个波束。

The effect of specifying specific emitters for specific threats extends beyond the ability to jam a certain emitter exclusively or to exclude certain emitters. The emitter-based prioritization allows the platform, for example, to initially jam multiple high and low-priority emitters on a threat. Then based on new circumstances such as changes in threat range or new detections on “pop-up” threats, higher-priority emitters on the same threat may continue to be jammed while beams or jammers on lower-priority emitters may be reallocated toward new higher-priority emitters on other threats.

为特定威胁指定特定发射器的效果超出了专门干扰某个发射器或排除某些发射器的能力范围。例如，基于发射器的优先次序允许平台最初干扰一个威胁的多个高优先级和低优先级发射器。然后根据新的态势，如威胁范围的变化或对 "突发 "威胁的新探测，同一威胁上优先级较高的发射器可继续受到干扰，而优先级较低的发射器上的光束或干扰器可重新分配给其他威胁上新的优先级较高的发射器。

Another issue concerns whether jamming can be performed before or only after reception of a victim waveform. In cases where the victim waveform will be replicated by the jammer, jamming is by definition contingent upon RF detection of signal threats. For other cases such as certain broadband noise jamming situations, the decision to jam is preemptive and does not first require reception and analysis of the victim waveform.

另一个问题是，干扰是否可以在接收到受害者的波形之前或之后进行。在受害者的波形将被干扰者复制的态势下，干扰的定义是取决于对信号威胁的射频检测。对于其他态势，如某些宽带噪声干扰态势，干扰的决定是先发制人的，不需要首先接收和分析受害者的波形。

Consistent with the first case, the RF emissions of targets selected by the Jammer Control phase must be detected in order for jammers to be allocated toward those threats. For threats selected by the User Rules Jamming Priorities response, an option is provided for whether or not the detection of signal emissions is required. Selecting “Yes” indicates that signal detection of the specified emitter is required prior to jammer allocation. Selecting “No” indicates that RF detection is not required.

与第一种态势一致，必须检测干扰器控制阶段选择的目标的射频发射，以便将干扰器分配给这些威胁。对于由用户规则干扰优先级响应选择的威胁，提供了一个是否需要检测信号发射的选项。选择 "是 "表示在分配干扰器之前需要检测指定发射器的信号。选择 "否 "表示不需要检测射频。

The Jamming Priorities include the ability to mask a track. The track masking capability can be used to model the effects of different types of electronic countermeasures (ECM) including the ability to distort communications track messages and the ability to inject multiple false targets (MFTs) into the victim radar. If the target emitter type is a communication device, the masking is modeled as injecting a signal into the communication device. If the target emitter type is a radar, the masking is modeled as injecting a signal into the radar. Although message interception is simulated as described in MM 4.12.1.3, the subsequent ability to analyze, distort, and retransmit is not explicitly modeled.

干扰优先权包括掩盖轨道的能力。轨迹掩蔽能力可用于模拟不同类型的电子对抗措施（ECM）的效果，包括扭曲通信轨迹信息的能力和向受害者雷达注入多个虚假目标（MFT）的能力。如果目标发射器类型是通信设备，掩蔽被建模为向通信设备注入信号。如果目标发射器类型是雷达，掩蔽被建模为向雷达注入信号。尽管信息拦截被模拟成MM4.12.1.3中描述的那样，但随后的分析、扭曲和重传的能力并没有被明确地模拟。

In this case the mask track option captures the effect of rendering ineffective messages against the ECM platform or one of its assets. If tracks on the ECM platform’s assets are being masked then the ECM platform is playing the role of an escort jammer. The ECM platform or the asset which it is defending can be referred to as the defended platform.

在这种态势下，掩蔽轨道选项可以捕捉到使针对ECM平台或其某一资产的信息无效的效果。如果ECM平台资产的轨迹被掩盖，那么ECM平台就扮演了护航干扰者的角色。ECM平台或其所防御的资产可称为被防御平台。

There are two levels of fidelity for capturing different effects of a MFT deception jamming technique. The first level captures the effect of the jammer creating confusion by making the track on the defended platform unusable. A higher fidelity option actually injects false targets by creating tracks on each of the false targets in the track file of the target platform. The track masking capability is implemented using a standard jammer element, and the masking option is a subset of the Jamming Priorities response.

捕捉MFT欺骗性干扰技术的不同效果，有两个保真度级别。第一个级别是捕捉干扰者通过使被防御平台上的轨道无法使用而产生的混乱效果。更高的保真度选项实际上是通过在目标平台的轨迹文件中创建每个虚假目标的轨迹来注入虚假目标。轨迹掩蔽能力是通过标准干扰器元素实现的，而掩蔽选项是干扰优先级响应的一个子集。

If this option is enabled and if resource and signal requirements are satisfied, for each threat selected for jammer prioritization, a track on the defended platform held in a Was Bomber, Fighter, Flexible SAM, Flexible Commander, or Laser track file will be excluded from threat assessment by those threats. These threats will continue to update masked tracks via standard track data management rules, but the masked track will neither be assessed as a threat nor will it be reported over the threat’s networks. Engagement of the target will also be prevented in the Engage and Vector phases of the Fighter ruleset.

如果启用该选项，并且满足资源和信号要求，对于为干扰器优先选择的每个威胁，被防御平台上保存在Was Bomber、Fighter、Flexible SAM、Flexible Commander或Laser轨迹文件中的轨迹将被排除在这些威胁的评估之外。这些威胁将继续通过标准的轨道数据管理规则更新被屏蔽的轨道，但被屏蔽的轨道既不会被评估为威胁，也不会通过威胁的网络报告。在战斗机规则集的啮合和矢量阶段，也将阻止目标的啮合。

When track masking is selected on the Jamming Priorities window, it is applied to all selected threats that meet the Jammer Control criteria for jamming. A jammer must be available and a beam must be allocated to the threat before masking will occur. The jammer is used to apply track masking due to the resource allocation and power distribution capabilities of the jammer.

当在 "干扰优先级 "窗口中选择轨道屏蔽时，它将应用于所有符合干扰器控制标准的选定威胁的干扰。 在屏蔽发生之前，必须有一个干扰器可用，并且必须为威胁分配一个波束。由于干扰器的资源分配和功率分配能力，干扰器被用来应用跟踪屏蔽。

This approach allows track masking to operate independent of the propagation model’s connectivity evaluation when targeting communication devices. It also provides resource constraints for track masking and allows masking operations to be shown visually through the Playback Jamming Display Preferences.

这种方法允许轨迹屏蔽在针对通信设备时独立于传播模型的连通性评估而运行。它还为轨迹屏蔽提供了资源约束，并允许通过回放干扰显示首选项直观地显示屏蔽操作。

Since the implementation for applying a track masking signal to a threat is done via a jammer, the Connectivity utility will continue to evaluate RF connectivity as though standard jamming were applied. If the track masking SNR requirements are higher than those for standard comm jamming, Connectivity will indicate that the target is comm jammed when in fact, masking only is being applied. If the track masking SNR requirements are lower than those for standard comm jamming, Connectivity will indicate perfect RF connectivity when in fact, masking is being applied.

由于对威胁应用轨迹掩蔽信号的实施是通过干扰器完成的，Connectivity 工具将继续评估 RF 连接性，就像应用标准干扰一样。如果跟踪掩蔽的信噪比要求高于标准通信干扰的要求，Connectivity将表明目标是通信干扰，而事实上，只应用了掩蔽。如果跟踪掩蔽信噪比要求低于标准通信干扰的要求，"连接性 "将显示完美的射频连接，而事实上，正在应用掩蔽。

Track masking may be stopped for the same reason that any dynamic jamming is stopped against a threat, i.e., when a threat is dropped from the Jammer Control jammer target list. Track masking can also be disabled by setting the “OFF” or 0 priorities for a selected threat in a user rules jamming priorities response or by deselecting the mask track option in a user rules response. When track masking is stopped, the track entry on the jammer victim in the threat platform’s track file is reset such that the threat must re-detect and establish track before a track on the defended platform is valid.

轨迹掩蔽可以与任何针对威胁的动态干扰停止的原因相同，即当威胁从干扰器控制的干扰器目标列表中删除时，就会停止。也可以通过在用户规则干扰优先级响应中为选定的威胁设置 "关闭 "或 0 优先级，或在用户规则响应中取消选择屏蔽轨道选项来禁用轨道屏蔽。轨迹屏蔽停止后，威胁平台的轨迹文件中干扰者受害者的轨迹条目会被重置，因此威胁必须在被防御平台的轨迹有效之前重新检测并建立轨迹。

### 4.12.3.9.1 Track Masking Communications Device Targets

4.12.3.9.1 跟踪屏蔽通信设备目标

The track masking signal computations are performed in the C3I jammer allocation routines in a manner analogous to those in the Prop model for communication devices. Communications and radar jamming is described in Methodology Manual sections 7.4.3 and 6.5.5 respectively. For radars and communication devices, the received power is computed for the case where a message was intercepted from a transmitting platform and the jamming victim was someone other than that platform.

轨迹掩蔽信号的计算在C3I干扰器分配程序中进行，其方式类似于通信设备的Prop模型中的计算。通信和雷达干扰分别在《方法学手册》第7.4.3和6.5.5节中进行了描述。对于雷达和通信设备，接收功率的计算是针对从发射平台截获信息，而干扰受害者是该平台以外的人这种态势。

yyxyyxyyx

yyxyyxyyx

If the masking power is greater than the jam power needed to mask the track, the masking is considered effective. A positive value for the masking margin indicates that the signal required to successfully distort the transmission must be stronger than that required for normal comm disruption. A negative masking margin value indicates that some distortion is possible prior to achieving the standard SNR threshold. This implementation assumes that track masking is primarily applied to platforms linked to a transmitter. The signal calculations are based on received power and are thus oriented toward the signal requirements of receivers linked to the communications transmitter platform. For the cases where communications track masking is applied to the platform that transmitted the message, there is no received power from which to compute masking signal effectiveness. In these cases, it is assumed that the signal strength is sufficient to mask the victim, so the track masking power constraints are not applied.

如果掩蔽功率大于掩蔽轨迹所需的干扰功率，则认为掩蔽是有效的。屏蔽余量的正值表明，成功扭曲传输所需的信号必须强于正常通信中断所需的信号。屏蔽余量的负值表明，在达到标准信噪比阈值之前，一些失真是可能的。本实施方案假定轨道屏蔽主要适用于与发射机相连的平台。信号计算是基于接收功率，因此面向与通信发射机平台相连的接收机的信号要求。对于通信轨迹掩蔽应用于传输信息的平台的态势，没有接收功率来计算掩蔽信号的有效性。在这些态势下，假定信号强度足以掩蔽受害者，所以不适用轨道掩蔽功率限制。

### 4.12.3.9.2 Track Masking Radar Targets

4.12.3.9.2 跟踪掩蔽雷达目标

The signal computations are performed in the Detect radar routines for radar targets. For cases where the target emitter is a radar, a single signal check is performed. First, the received jammer power is computed.

对于雷达目标，信号计算是在检测雷达程序中进行的。对于目标发射器是雷达的态势，要进行单一信号检查。首先，计算收到的干扰器功率。

Yyxyyx

Yyxyyx

If the SIR is less than the SNR threshold, then the masking is considered effective.

如果SIR小于SNR阈值，则认为掩蔽是有效的。

### 4.12.3.9.3 Inject False Targets

4.12.3.9.3 注入虚假目标

The inject false targets option captures several effects in addition to the track masking effect by creating tracks on each of the false targets in the track file of the target platform. The false target tracks are injected when the track is determined to be masked as described in sections 4.12.3.9.1 and 4.12.3.9.2 for comm. devices and radars respectively. Flooding the target track file with tracks on false targets captures the effect of track file saturation.

注入虚假目标选项通过在目标平台的轨迹文件中创建每个虚假目标的轨迹，捕捉到除轨迹掩蔽效果之外的几种效果。如第4.12.3.9.1节和第4.12.3.9.2节所述，当轨道被确定为掩蔽时，就会注入虚假目标轨道，分别用于通讯设备和雷达。用虚假目标的轨迹充斥目标轨迹文件，可以捕捉到轨迹文件饱和的效果。

Track file saturation is reached when the maximum track file size is reached. The false target tracks could prevent tracks on real targets from being added to the track file. The false target tracks can be engaged upon, which captures the effect of weapon depletion. Explicit weapons have the ability to detect and divert to the real target after launch using onboard sensors. The tracks can also be disseminated on networks. This captures the effect of network loading.

当达到最大轨道文件大小时，轨道文件就达到了饱和。虚假目标轨迹可以阻止真实目标的轨迹被添加到轨迹文件中。虚假目标轨道可以进行交战，这就抓住了武器耗损的效果。明确的武器有能力在发射后使用机载传感器探测并转向真实目标。这些轨迹也可以在网络上传播。这可以捕捉到网络负载的效果。

When track masking is successful against a radar target, the tracks on the false targets are created and updated while processing SPDS records. SPDS records are sent from the detection model to the C3I model. The false target tracks are logged as tracks against the defended platform ID; however, the track locations are set to the user specified false target locations relative to the defended platform.

当对雷达目标的跟踪掩蔽成功后，在处理SPDS记录时，虚假目标上的跟踪被创建和更新。SPDS记录从探测模型被发送到C3I模型。虚假目标的轨迹被记录为针对被防御平台ID的轨迹；然而，相对于被防御平台，轨迹位置被设置为用户指定的虚假目标位置。

When track masking is successful against a communications target, the tracks on the false targets are created when the signal checks are successful by sending a track message over an implicit network to the target.

当对通信目标的轨迹屏蔽成功后，当信号检查成功后，通过隐性网络向目标发送轨迹信息，就会在虚假目标上产生轨迹。

The false target locations are specified in a body frame coordinate system as down range, cross range and up. The origin of the body frame coordinate system can be defined as either at the ECM platform or at the location of the asset in the case of a standoff jammer. The orientation of down range is specified as either along the velocity vector of the origin platform or along the LOS from the origin to the target. The cross range is in the local horizontal plane, perpendicular to the down range.

虚假目标的位置在体架坐标系中被指定为下射程、跨射程和上射程。体座标系统的原点可以定义为ECM平台，也可以定义为站立干扰器的资产位置。下射程的方向被指定为沿原点平台的速度矢量或沿原点到目标的LOS。交叉射程是在本地水平面上，与下射程垂直。

The directionality of the cross range is defined as the cross product of the down range and the local up vector. The false target locations are specified as distribution types in the down range, cross range, and up directions. A random draw is made from each distribution when the false target tracks are created and each time the false target track positions are updated. The mean value is used if randomness has been eliminated from the scenario.

交叉范围的方向性被定义为下行范围和局部上行矢量的交叉积。虚假目标位置被指定为向下范围、交叉范围和向上方向的分布类型。在创建假目标轨道和每次更新假目标轨道位置时，都从每个分布中随机抽取。如果随机性已从方案中消除，则使用平均值。

Examples of these coordinate systems are shown in Figure 4.12-1 and Figure 4.12-2 respectively. The ECEF2Body routine described in MM Appendix B section B10.2.4 with the LOS vector sent in as the velocity argument can be used to create a rotation matrix which is used to convert between ECEF and the multiple false targets coordinate system for the LOS orientation option. The ECEF2BodyMatrix routine described in MM Appendix B section B10.2.6 is used to create a rotation matrix which is used to convert between ECEF and the multiple false targets coordinate system for the velocity option. The Y axes are made negative and then the X and Y axes are swapped in order to create a right handed coordinate frame that is oriented correctly.

这些坐标系的例子分别显示在图4.12-1和图4.12-2中。MM附录B第B10.2.4节中描述的ECEF2Body程序，以LOS矢量作为速度参数送入，可以用来创建一个旋转矩阵，用于在ECEF和LOS方向选项的多个假目标坐标系之间进行转换。MM附录B第B10.2.6节中描述的ECEF2BodyMatrix程序被用来创建一个旋转矩阵，用于在ECEF和速度选项的多个假目标坐标系之间进行转换。Y轴为负数，然后X轴和Y轴互换，以创建一个方向正确的右手坐标框架。

Figure 4.12-1

图4.12-1

Figure 4.12-2

图4.12-2

## 4.12.3.10 Emitter Cycle Time

4.12.3.10 发射器周期时间

Selecting this option as part of a response definition causes the rescheduling of the User Rules phase at the time of the actual response reaction plus the emitter cycle time input. When the User Rules phase is reexecuted, emitter reactions for the response are reversed. If a higher priority trigger is scheduled before this time, emitter responses are deconflicted. Subsection 4.12.3 provides a more detailed description of response deconfliction.

选择此选项作为响应定义的一部分，会导致在实际响应响应的时间加上发射器周期时间输入，重新安排用户规则阶段。当用户规则阶段被重新执行时，响应的发射器响应会被颠倒。如果在此时间之前安排了更高优先级的触发器，发射器响应就会被解调。4.12.3小节提供了关于响应解冲突的更详细的描述。

## 4.12.3.11 RCS Transition

4.12.3.11 RCS过渡期

An airborne platform may change its radar cross section (RCS) as a function of events in the scenario. RCS may be adjusted for fixed-wing and rotary-wing aircraft as well as satellites. For helicopters, the RCS can transition to new rotary- wing specifications. For all other aircraft including captive platforms and complex weapons, the RCS can transition to a new uniform value, a frequency and angle dependent RCS, or a probabilistic fluctuating model type. Subsection 6.13 describes in detail how RCS is represented and used in EADSIM. It also provides examples on configuring RCS for opening and closing bomb bay doors and for changing the post-launch RCS of explicitly-modeled weapons.

一个机载平台可以改变其雷达截面（RCS），作为场景中事件的函数。对于固定翼和旋转翼飞机以及卫星，RCS可以被调整。对于直升机，RCS可以过渡到新的旋翼规格。对于所有其他飞机，包括俘虏平台和复杂武器，RCS可以过渡到一个新的统一值，一个与频率和角度有关的RCS，或一个概率波动的模型类型。第6.13小节详细描述了RCS如何在EADSIM中表示和使用。它还提供了配置RCS的例子，用于打开和关闭弹舱门以及改变明确建模的武器的发射后RCS。

## 4.12.3.12 MOPP Transition

4.12.3.12 MOPP过渡期

The MOPP transition will either transition the ruleset to the MOPP mode ruleset specified for the current ruleset, or will return the ruleset to the original ruleset for the platform.

MOPP过渡将把规则集过渡到为当前规则集指定的MOPP模式规则集，或将规则集返回到平台的原始规则集。

## 4.12.3.13 Change EMCON Authority Status

4.12.3.13 改变EMCON权限状态

The Flexible SAM and Flexible Commander have the ability to dynamically change EMCON authority status as part of a User Rules response. If this option is selected as part of a response definition, the authority status is changed to whatever status is indicated. If a platform becomes an EMCON authority during a response, the platform's sensor coverage grid is initialized based on currently active TAIs. If the platform is not associated with any TAIs, it will retain its current authority status and the response will fail. The sensor status verification routine is scheduled to verify messages from external surveillance and commanded sensor platforms for the new EMCON authority.

灵活的SAM和灵活的指挥官有能力动态地改变EMCON授权状态，作为用户规则响应的一部分。如果该选项被选为响应定义的一部分，授权状态将被改变为所显示的任何状态。如果一个平台在响应期间成为EMCON授权，那么该平台的传感器战斗机交战区网格将根据当前活动的TAI进行初始化。如果该平台没有与任何TAIs相关联，它将保留其当前的授权状态，响应将失败。传感器状态验证程序被安排用来验证来自外部监视和指挥的传感器平台的信息，以获得新的EMCON授权。

## 4.12.3.14 Platform-Object Geometry Checks

4.12.3.14 平台-物体的几何检查

As part of the User Rules response, platform-object geometry checks can be turned on and off. In addition, the timing of the check can be changed. The platform-object geometries are described in Subsection 4.12.1.

作为用户规则响应的一部分，平台-物体的几何特征检查可以被打开或关闭。此外，检查的时间也可以改变。4.12.1小节中描述了平台-物体的几何特征。

## 4.12.3.15 Generate ARM Alert

4.12.3.15 生成ARM警报

The User Rules phase has the ability to generate various alerts. The ARM alert message is generated if the response definition includes this condition. A platform can respond to a generated ARM alert if a trigger is met and its definition includes receipt of an ARM Alert.

用户规则阶段有能力产生各种警报。如果响应定义中包括这个条件，就会生成ARM警报信息。如果触发器被满足，并且其定义包括收到ARM警报，则平台可以对生成的ARM警报做出响应。

## 4.12.3.16 Generate Jamming Alert

4.12.3.16 产生干扰警报

The User Rules phase has the ability to generate various. The jamming alert message is generated if the response definition includes this condition. A platform can respond to a generated jamming alert if a trigger is met and its definition includes the jamming trigger.

用户规则阶段有能力生成各种。如果响应定义包括这个条件，就会生成干扰警报信息。如果满足触发条件，并且其定义包括干扰触发条件，平台可以对生成的干扰警报做出响应。

## 4.12.3.17 Generate Sensor Alert

4.12.3.17 产生传感器警报

The User Rules phase has the ability to generate various. The sensor alert message is generated if the response definition includes this condition and the platform changes sensor status—e.g., as a result of shutting down sensors due to an ARM alert. The acting EMCON authority attempts to add or drop sensor coverage to the desired level if it receives a sensor alert message.

用户规则阶段有能力生成各种。如果响应定义包括该条件，并且平台改变了传感器状态--例如，由于ARM警报而关闭了传感器，就会生成传感器警报消息。代理EMCON机构如果收到传感器警报信息，就会尝试将传感器战斗机交战区率增加或降低到所需的水平。

## 4.12.3.18 Alternate Commander Selection

4.12.3.18 选择候补指挥官

The Flexible SAM, Flexible Commander, Fighter, Airbase, SAM LCS, and SAM Launcher rulesets have the ability to be assigned to a new commander as a User Rules response to a Lost, Regained, or Death of Commander/Subordinate trigger. Various selection criteria can be specified to determine which platform will be chosen as the new commander.

灵活SAM、灵活指挥官、战斗机、空军基地、SAMLCS和SAM发射器规则集能够被分配给一个新的指挥官，作为用户规则对丢失、重新获得或指挥官下属销毁触发的响应。可以指定各种选择标准，以确定哪个平台将被选为新指挥官。

The selection doctrine, whether peer level or skip echelon, will play the largest role in the determination. However, the capacity for commanding additional subordinates must be considered. If an alternate commander cannot be chosen by the selected method(s), the ruleset will revert to the Autonomous mode of operation, if specified as a selection failure option. Once the selection has been made, the alternate commander and the new subordinate are linked via a dynamic network based on the subordinate's ruleset net options if a network does not already exist between them.

选择理论，无论是同级还是跳级，都将在确定中发挥最大的作用。然而，必须考虑指挥其他下属的能力。如果不能通过选定的方法选择候补指挥官，规则集将恢复到自主操作模式，如果指定为选择失败的选项。一旦做出选择，候补指挥官和新的下属就会通过一个基于下属的规则集网络选项的动态网络联系起来，如果他们之间还没有网络的话。

### 4.12.3.18.1 Skip Echelon Selection

4.12.3.18.1 跳过梯队选择

For the Skip Echelon Selection doctrine, an alternate commander above the commander that has been lost will be selected as the new commander. If the Skip Echelon logic is executing to replace a subordinate commander, the commander will directly inherit as many of the subordinate's subordinates as it can if the distribute assignment option is selected. Otherwise the best candidate for each subordinate will be determined. The distribute assignment option causes the selection logic to be executed so that once a subordinate is assigned any other subordinates of that system type will be assigned to the alternate if possible.

对于跳过梯队选择理论，已经失去的指挥官上面的一个备用指挥官将被选择为新的指挥官。如果执行跳过梯队的逻辑来替换一个下属指挥官，如果选择了分配任务选项，该指挥官将直接继承该下属的尽可能多的部下。否则将确定每个下属的最佳人选。分布式分配选项会导致选择逻辑的执行，一旦一个下属被分配，如果可能的话，该系统类型的任何其他下属将被分配给候补者。

The remaining subordinates will then be checked to determine if a higher level commander can take over control. If the Skip Echelon logic is executing to find a new commander, the logic will attempt to connect the platform to the first level possible above the currently unavailable commander. The remainder from those handled by the Skip Echelon logic will either be subjected to locating a peer level replacement, be set to Autonomous, or remain in their current mode of operation.

然后将检查剩余的下属，以确定是否有更高级别的指挥官可以接管控制权。如果跳过梯队逻辑正在执行以寻找新的指挥官，该逻辑将尝试将平台连接到当前不可用的指挥官之上的第一个可能的级别。从那些由跳过梯队逻辑处理的其余部分将受到定位一个同级别的替代者，被设置为自主，或保持在其当前的操作模式。

### 4.12.3.18.2 Peer Level Selection

4.12.3.18.2 同级别的选择

For the Peer Level Selection doctrine, an alternate commander at the same level as the one being replaced will be selected as the new commander. Candidate alternate commanders are limited to commanders under the same command chain,

对于同级选择原则，将选择与被替换者同级的候补指挥官作为新指挥官。候选的候补指挥官仅限于同一指挥链下的指挥官。

i.e. commanders that share a common commander with the platform being replaced. Once an alternate is found for a subordinate other subordinates of the same system type can be assigned to that alternate if possible. This selection method is used if the distribute assignment option is selected. Otherwise the best candidate for each subordinate will be determined.

即与被替换的平台有共同的指挥官。一旦为某一下属找到替代者，如果可能的话，同一系统类型的其他下属可以被分配给该替代者。如果选择了分布式分配选项，就会使用这种选择方法。否则将确定每个下属的最佳人选。

### 4.12.3.18.3 Select by Secondary Networks

4.12.3.18.3 按二级网络选择

Selecting the Select By Secondary Networks doctrine allows the selection of a commander outside the Peer Level and Skip Echelon constraints of the command chain. This option will include as potential candidates those other players that are the second participant on a two participant secondary network coming from the current player. Therefore, only one candidate alternate will come from each secondary network.

### 4.12.3.18.4 Alternate Commander Limiters

4.12.3.18.4 备用指挥官限制器

The ability to select a specific alternate commander is further limited by other user specified parameters. These limiters include:

选择特定备用指挥官的能力受到其他用户指定参数的进一步限制。这些限制因素包括。

•                Maximum Range

•                Follow Fixed Networks

- 关注固定网络

•                Maximum Number of Subordinates

- 最大数量的下属机构

•                Specific System Types

- 特定的系统类型

•                Available Communications Devices

- 可用的通信设备

The range limiter is to prevent the selection of alternate commanders located an unreasonably long distance from the unit to be commanded. The alternate commander candidate must be within the specified range from the subordinate in order to be considered a valid selection.

The option to follow fixed networks will only allow selection of alternate commanders for which a network has been established to the specific subordinate during simulation setup.

Networks may be secondary networks which will only become active if needed to support the transition to an alternate commander.

Commanding units which can be selected as an alternate commander will be provided an input which governs the maximum number of subordinates which can be handled. This input acts as a limit on the number of subordinates which can be added to an alternate commander. The rulesets which have this input are the Flexible Commander, Flexible SAM, and SAM LCS rulesets.

The Specific System Type filter allows the specification of those types of platforms which can become the alternate commander for a specific subordinate. A weight factor is specified for each system type allowed as an alternate. If selected, any commander within the command chain which is operating with the appropriate system type will be eligible.

特定系统类型过滤器允许指定那些可以成为特定下级的备用指挥官的平台类型。每种系统类型都有一个允许作为候补的权重系数。如果被选中，指挥链中任何使用相应系统类型的指挥官都将有资格。

The final filter is based on communication device compatibility. If selected, the systems would be required to have matching communication devices. This option would need to be exercised if running with Propagation RF connectivity checks or if Passive RF detection of communications emissions is desired.

最后的过滤器是基于通信设备的兼容性。如果选择，系统将被要求有匹配的通信设备。如果运行传播射频连接性检查或需要对通信发射进行无源射频检测，则需要行使这一选项。

### 4.12.3.18.5 Alternate Commander Candidate Sorting

4.12.3.18.5 候补指挥官候选对象排序

Weight factors are given to determine the alternate commander in case of multiple candidates. The System Type weight is applied if the Specific System Type Filter is selected. Weights are specified for Skip Echelon selection as well as Peer Level Selection. A Weight value is also given to apply to a prior commander. A Weight Value is also specified for Range considerations. The maximum range weight value is applied to the candidate closest to the subordinate. The weight factor is applied to subsequent candidates using the following equation:

在有多个候选对象的态势下，会给出加权系数来确定候补指挥官。如果选择了特定系统类型过滤器，系统类型的权重将被应用。跳过梯队的选择以及同级别的选择都有相应的权重。一个权重值也被赋予适用于先前的指挥官。对于范围的考虑，也会指定一个权重值。最大范围的权重值适用于最接近下级的候选对象。权重系数采用以下公式适用于随后的候选对象。

Weight = MinRange/Candidate Range \* Range weight where,

权重=MinRangeCandidate范围\*范围权重，其中。

MinRange = Range between the subordinate and the closest candidate Candidate Range = Range between a candidate and the subordinate Range weight = Weight factor specified for range

最小范围 = 下级与最近的候选对象之间的范围 候选对象范围 = 候选对象与下级之间的范围 范围权重 = 为范围指定的权重系数

Once the weight from range considerations is determined for each candidate, the final weight for each candidate can be determined by adding any other applicable weight values. The candidates are then sorted based on the weight value so that the subordinate is assigned to the best possible candidate.

一旦为每个候选对象确定了来自范围考虑的权重，就可以通过添加任何其他适用的权重值来确定每个候选对象的最终权重。然后根据权重值对候选对象进行排序，以便将下属分配给可能的最佳候选对象。

### 4.12.3.18.6 Alternate Commander Ruleset Transition

4.12.3.18.6 候补指挥官规则集的转换

Once a subordinate is assigned to a new commander, the loading/timing impacts of commanding additional platforms are determined. The Flexible Commander ruleset definition allows specification of a ruleset transition list and a system weight list. The transition list contains a number of subordinates entry and a corresponding ruleset type. The system weight list contains system types and weight factors applied when a subordinate of that type is picked up.

一旦下级被指派给新的指挥官，指挥额外平台的装载时间影响就会被确定。灵活的指挥官规则集定义允许指定一个规则集过渡列表和一个系统权重列表。过渡列表包含一个下属条目的数量和相应的规则集类型。系统权重列表包含系统类型和该类型的下属被接走时应用的权重系数。

When an additional subordinate is picked up the system list is evaluated. If the subordinate system is on the system list, the weight corresponding to that system is used in determining the new ruleset. Otherwise, the subordinate is counted using a weight value of 1. All the subordinates are counted according to their weighted value. This total represents the number of subordinates commanded by the commander. The value is then used to determine the new ruleset. Once the ruleset transition occurs, the platform operates using the parameters specified for the new ruleset.

当一个额外的从属系统被拾起时，系统列表被评估。如果下级系统在系统列表中，则在确定新的规则集时使用与该系统对应的权重。否则，就用1的权重值来计算该下属。所有的下属都根据其权重值来计算。这个总数代表了指挥官所指挥的下属的数量。然后用这个值来决定新的规则集。一旦发生规则集转换，平台就使用为新规则集指定的参数进行操作。

## 4.12.3.19 Adjust Desired Overall DFD

4.12.3.19 调整理想的整体DFD

The User Rules phase has the ability to dynamically change desired DFD levels. The desired DFD levels affect which sensors are allowed to cue others and also which targets remain in the track file. The basic rules of operation are as follows: 1) When the DFD levels are adjusted as part of a User Rules response, any track for which the DFD rating is not between the minimum and maximum desired levels is dropped from the track file. 2) Only sensors that have DFD ratings between the desired levels are considered for cueing dependent sensors.

用户规则阶段有能力动态地改变所需的DFD水平。所需的DFD水平影响到哪些传感器被允许提示其他传感器，也影响到哪些目标留在轨道文件中。基本的操作规则如下。1）当DFD水平作为用户规则响应的一部分被调整时，任何DFD等级不在最小和最大期望水平之间的轨道将从轨道文件中删除。2）只有那些DFD等级在期望水平之间的传感器才会被考虑为提示依赖性传感器。

## 4.12.3.20 Adjust Desired Target DFD

4.12.3.20 调整预期目标DFD

DFD adjustments can be made relative to a single target. This allows the ability of a sensor to have a high DFD for fire control against one target while having a lower tracking DFD against other targets.

DFD调整可以相对于单个目标进行。这使得传感器能够在对一个目标进行火力控制时具有较高的DFD，而对其他目标则具有较低的跟踪DFD。

## 4.12.3.21 Named Status

4.12.3.21 命名的状态

The Named Status response allows the user to designate strings describing the platform's current state. Each string can be up to 25 characters in length. For example, when a fighter enters a maneuver, the status of FIGHTER\_MANEUVER can be set. This status can be evaluated during subsequent trigger events. At the completion of the maneuver, the status condition can be turned off.

命名状态响应允许用户指定描述平台当前状态的字符串。每个字符串最多可以有25个字符的长度。例如，当战斗机进入机动状态时，可以设置FIGHTER\_MANEUVER的状态。这个状态可以在随后的触发事件中被评估。在演习完成后，可以关闭该状态条件。

## 4.12.3.22 IFF Interrogation

4.12.3.22 IFF讯问

The IFF Interrogation response will cause an IFF interrogation to be performed. IFF modes can be specified in the order in which the interrogation should be performed. Each listed mode will be attempted until the IFF interrogation is successful. With each mode, the user can also specify the score to be

IFF询问响应将导致IFF询问的执行。IFF模式可以按照询问的顺序来指定。每个列出的模式都将被尝试，直到IFF询问成功。对于每一种模式，用户还可以指定所需的分数。

## 4.12.3.23 Delete Tracks

4.12.3.23 删除轨迹

The delete tracks User Rules response allows all tracks in the user specified track files to be purged upon execution of the response. This forces the platform to reacquire the tracks either by detecting the target with onboard sensors or by receiving remote tracks over networks. The deletion of tracks is logged to post processing upon execution of the user rules delete tracks response as URULE\_Delete\_Tracks.

删除轨迹用户规则响应允许在执行该响应时清除用户指定的轨迹文件中的所有轨迹。这就迫使平台通过机载传感器检测目标或通过网络接收远程轨道来重新获取轨道。在执行用户规则删除轨道响应时，轨道的删除被记录到后处理中，成为URULE\_Delete\_Tracks。

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## 4.12.3.24 Named Trigger

4.12.3.24 命名的触发器

The Named Trigger capability allows one platform, as part of its User Rules response, to trigger one or more other platforms to execute a response of their own. For the triggered platform to perform a response, it must have a trigger defined with Named Trigger selected as the primary trigger and the matching Named Trigger selected from the available list. If the platform being triggered has a matching Named Trigger defined, then its status conditions, if any are selected, are evaluated to determine if the platform should initiate a response of its own.

命名触发器功能允许一个平台，作为其用户规则响应的一部分，触发一个或多个其他平台执行其自身的响应。为使被触发的平台执行响应，它必须定义一个触发器，将 "命名触发器 "选为主要触发器，并从可用列表中选择匹配的 "命名触发器"。如果被触发的平台定义了一个匹配的命名触发器，那么它的状态条件（如果有选择的话）将被评估，以确定该平台是否应启动自己的响应。

The following options allow selection of the platform or group of platforms to be triggered. For each selection made, the candidate(s) are evaluated to determine if the candidate is already on the candidate list. For example, if Commander and Flight Leader are both selected and are the same platform, the platform will only be added once to the candidate list. If the platform is currently engaging a target and the Exclude Busy option is selected, the candidate is skipped.

以下选项允许选择要触发的平台或平台组。对于每一个选择，都会对候选对象进行评估，以确定该候选对象是否已经在候选对象名单上。例如，如果指挥官和飞行长都被选中并且是同一个平台，那么该平台将只被添加到候选名单中一次。如果该平台目前正在与一个目标交战，并且选择了排除繁忙选项，则该候选对象将被跳过。

The options for platforms to be triggered are:

触发的平台的选项是：。

-    Self

- 自己

-    Commander

- 指挥官

-    Subordinate

- 隶属关系

-    Flight Leader

- 编队长机

-    Wingman

- 翼人

-    Platforms Providing Engagement Support

- 提供交战支持的平台

-    Platforms Receiving Engagement Support

- 获得交战支持的平台

-    Platforms Providing External Surveillance

- 提供外部监视的平台

-    Platforms Receiving External Surveillance

- 接受外部监视的平台

-    Tanker

- 坦克

-    Target

- 目标

-    Defined Trigger Groups

- 定义的触发器组

### 4.12.3.24.1 Self

4.12.3.24.1 自我

If this option is selected, the platform itself is eligible to be triggered.

如果选择这个选项，平台本身就有资格被触发。

### 4.12.3.24.2 Commander

4.12.3.24.2指挥官

If Commander is selected, the current commander of the platform will be eligible to be triggered unless the platform is its own commander.

如果选择了指挥官，那么平台的现任指挥官将有资格被触发，除非平台是自己的指挥官。

### 4.12.3.24.3 Subordinate

4.12.3.24.3 从属关系

If the subordinate option is selected, all subordinates of the platform are eligible to be triggered.

如果选择了下级选项，该平台的所有下级都有资格被触发。

### 4.12.3.24.4 Flight Leader

4.12.3.24.4 编队长机

If the flight leader option is selected, the platform's flight leader is eligible to be triggered, unless the platform is its own flight leader.

如果选择了编队长机选项，平台的编队长机有资格被触发，除非平台是自己的编队长机。

### 4.12.3.24.5 Wingman

4.12.3.24.5 Wingman

If this option is selected, all wingmen of the platform executing the response are eligible to be triggered.

如果选择该选项，执行响应的平台的所有僚机都有资格被触发。

### 4.12.3.24.6 Platforms Providing Engagement Support

4.12.3.24.6 提供交战支持的平台

If this option is selected, platforms providing engagement support to the platform executing the response are eligible to be triggered. Further options allow specification of platforms currently providing support on any target or platforms providing support on the current target.

如果选择该选项，向执行响应的平台提供交战支持的平台有资格被触发。进一步的选项允许指定当前对任何目标提供支持的平台或对当前目标提供支持的平台。

### 4.12.3.24.7 Platforms Receiving Engagement Support

4.12.3.24.7 接受交战支持的平台

If this option is selected, platforms receiving engagement support from the platform executing the response are eligible to be triggered. Further options allow specification of platforms currently receiving support on any target or platforms receiving support on the current target.

如果选择了这个选项，从执行响应的平台接受交战支持的平台就有资格被触发。进一步的选项允许指定当前在任何目标上接受支持的平台或在当前目标上接受支持的平台。

### 4.12.3.24.8 Platforms Providing External Surveillance

4.12.3.24.8 提供外部监视的平台

If this option is selected, platforms providing external surveillance to the platform executing the response are eligible to be triggered.

如果选择该选项，向执行响应的平台提供外部监视的平台有资格被触发。

### 4.12.3.24.9 Platforms Receiving External Surveillance

4.12.3.24.9 接受外部监视的平台

If this option is selected, platforms receiving external surveillance from the platform executing the response are eligible to be triggered.

如果选择此选项，从执行响应的平台接收外部监视的平台有资格被触发。

### 4.12.3.24.10 Tanker

4.12.3.24.10 坦克

If this option is selected, the platform's tanker is eligible to be triggered.

如果选择了这个选项，该平台的油轮就有资格被触发。

### 4.12.3.24.11 Target

4.12.3.24.11 目标

If this option is selected, the platform's target is eligible to be triggered.

如果选择该选项，平台的目标就有资格被触发。

### 4.12.3.24.12 Trigger Group Relationship IDs

4.12.3.24.12 触发组关系ID

Trigger Group Relationships allow the user to define groups of platforms that are not defined by the EADSIM configurations listed above. Any platforms that have a User Rules phase are eligible to be part of a trigger group. The platforms composing the trigger groups are designated on the responding platform's platform definition. If a trigger group is selected as part of the response, all platforms that are in the trigger group are eligible to be triggered. This option can be used to configure relationships not already defined in EADSIM, such as a set of specific escorts.

触发组关系允许用户定义未被上述EADSIM配置所定义的平台组。任何具有用户规则阶段的平台都有资格成为触发组的一部分。组成触发器组的平台在响应平台的平台定义上被指定。如果触发器组被选为响应的一部分，所有在触发器组中的平台都有资格被触发。该选项可用于配置EADSIM中尚未定义的关系，如一组特定的护航。

### 4.12.3.24.13 Limits

4.12.3.24.13 限度

All platforms designated on the Named Trigger definition can be triggered as part of a response, or a selected number of platforms can be triggered. An option for the total number of platforms to be triggered can be specified, along with the number of desired platforms. If a limit is selected, platforms can be sorted based on range to the target or range to the platform executing the response.

在命名触发器定义中指定的所有平台都可以作为响应的一部分被触发，或者可以触发选定数量的平台。 可以指定要触发的平台总数的选项，以及所需的平台数量。 如果选择了一个限制，可以根据到目标的范围或到执行响应的平台的范围对平台进行排序。

If a limit on the total number of platforms triggered has been selected, the range to either the target or platform executing the response is calculated and the candidate list of platforms to be triggered is sorted in order of ascending range. Once the candidate list has been completed, then each candidate up to the limit is scheduled to evaluate its User Rules phase to determine if it should initiate a response of its own.

如果选择了对触发的平台总数的限制，则计算到目标或执行响应的平台的范围，并按范围升序对要触发的平台的候选名单进行排序。一旦候选名单完成，那么每一个候选平台都会被安排评估其用户规则阶段，以确定它是否应该启动自己的响应。

## 4.12.3.25 Flight Options

4.12.3.25 飞行选项

The User Rules response allows an aircraft to select a flight mode relative to a target or relative to an airbase. For example, when initiating an engagement against a target, the aircraft might fly a defined profile. When defining responses for the aircraft to return to base, either home base or closest airbase should be selected as the destination. For return to base operations, the aircraft may optionally adopt the RTB ruleset as part of the flight option response. The user may also specify to adjust the maximum speed attainable by the aircraft in conjunction with any flight option.

用户规则响应允许飞机选择一个相对于目标或相对于空军基地的飞行模式。例如，当启动对目标的交战时，飞机可能会飞行一个定义的轮廓。当定义飞机返回基地的响应时，应选择本国基地或最近的空军基地作为目的地。对于返回基地的操作，飞机可以选择采用RTB规则集作为飞行选项响应的一部分。 用户也可以指定调整飞机可达到的最大速度，与任何飞行选项结合。

The Flight Options are:

飞行选项是。

-    Fly Profile

- 飞翔简介

-    Fly Maneuver

- 飞翔动作

-    Adopt A CAP

- 采纳一个CAP

-    Fly RTB Profile

- Fly RTB简介

-    Fly Route

- 飞行路线

-    Continue Waypoints

- 继续航路点

-    Reverse Waypoints

- 逆向航路点

-    Return To Ruleset Control

- 返回到规则集控制

If the Fly Maneuver option is selected then the aircraft will transition to the maneuver flight mode described in section 5.6.10 and fly the specified maneuver segments relative to the specified destination. The aircraft will transition back to default flight mode when the last maneuver segment is complete.

如果选择了机动飞行选项，那么飞机将过渡到5.6.10节中描述的机动飞行模式，并相对于指定的目的地飞行指定的机动段。当最后一个机动段完成后，飞机将过渡回默认飞行模式。

The Destinations against which the flight modes can be adopted are the triggered target, the aircraft's home airbase, the closest airbase, or the named trigger source platform. When adopting a flight mode relative to an airbase, all members of the flight will enter the designated mode. However, individual flight members can adopt flight options relative to their targets or the named trigger source platform.

可以采用飞行模式的目的地是被触发的目标、飞机的本土空军基地、最近的空军基地或指定的触发源平台。当采用相对于空军基地的飞行模式时，所有飞行成员将进入指定的模式。然而，个别飞行成员可以采用相对于其目标或命名的触发源平台的飞行选项。

The home base destination causes a flight to adopt the specified flight option relative to the platform specified as the flight leader’s home base, allowing for a return to base (RTB) response. The closest airbase destination option allows a flight to return to a base other than the one specified as its home base, such as when the flight has been damaged to such an extent that it would be unable to reach its original home base. If closest airbase is selected as the destination, all active airbases specified on the flight leader’s airbase list will be evaluated using slant range to determine which one is closest to the flight leader’s current position.

大本营目的地使一个航班相对于被指定为编队长机大本营的平台采用指定的飞行选项，允许返回基地（RTB）响应。最近的空军基地目的地选项允许航班返回到指定为其母港的基地以外的基地，例如，当航班被损坏到无法到达其原来的母港的程度。如果选择最近的空军基地作为目的地，所有在领队的空军基地列表中指定的现役空军基地将被评估，使用倾斜范围来确定哪个基地离领队的当前位置最近。

This airbase is then selected as the destination for the flight option. For those flight options which result in the flight landing at base, the flight will land at the chosen airbase and be added to its scramble queues. Upon landing, the aircraft utilizing the Fighter ruleset will adjust its command relationship to that of the commander of the airbase if it differs from the current commander. In addition, a new network is necessary in order for the aircraft to establish communication with the new commander. Likewise, all aircrafts in the flight must be adjusted in the same manner.

然后这个空军基地被选为该飞行选项的目的地。对于那些导致飞行降落在基地的飞行选项，飞行将降落在所选择的空军基地，并被添加到其争夺队列中。降落后，利用战斗机规则集的飞机将把它的指挥关系调整为空军基地指挥官的指挥关系，如果它与当前的指挥官不同的话。此外，为了使飞机与新的指挥官建立通信，需要一个新的网络。同样地，飞行中的所有飞机也必须以同样的方式进行调整。

A desired fuel reserve can be specified in conjunction with a home base or closest airbase destination. When associated with a Fuel Reserve Low Fuel trigger or status condition, it allows the evaluating aircraft to make dynamic RTB fuel limit evaluations based on how much fuel will be remaining when the aircraft arrives at the destination. The fuel reserve evaluation uses the flight option specified to estimate how much fuel the aircraft will expend in flying that path to the designated airbase.

所需的燃油储备可以与本基地或最近的空军基地目的地一起指定。当与燃油储备低油量触发或状态条件相关联时，它允许评估飞机根据飞机到达目的地时的剩余燃油量进行动态RTB燃油限制评估。燃油储备评估使用指定的飞行选项来估计飞机在飞行该路径到指定空军基地时会消耗多少燃油。

If the remaining fuel level is at or below the specified percentage of the aircraft’s original fuel weight, then the fuel reserve trigger or status condition will be met. If a fuel reserve is specified on a response but the response is not associated with a Low Fuel trigger or status condition, the fuel reserve is ignored.

如果剩余燃油量达到或低于飞机原始燃油重量的指定百分比，那么燃油储备触发或状态条件将得到满足。如果在响应中指定了燃油储备，但该响应没有与低燃油触发或状态条件相关联，则燃油储备将被忽略。

The named trigger source destination is provided such that an aircraft can fly a profile, maneuver, or CAP relative to the location of a platform that issued a named trigger to the aircraft. The reference location is current as of the time the aircraft’s response to the named trigger is initiated.

提供命名的触发源目的地是为了使飞机能够相对于向飞机发出命名的触发器的平台的位置飞行一个轮廓、机动或CAP。该参考位置在飞机对命名触发器的响应开始时是当前的。

### 4.12.3.25.1 Transition to RTB Ruleset

4.12.3.25.1 过渡到RTB规则集

This option allows transition of a flight to the specified RTB ruleset. A flight can transition to any ruleset of the EADSIM ruleset type RTB. Once in an RTB ruleset, the flight can never be assigned to another target nor engage targets on its own until it lands at base and takes off again. However, the RTB ruleset does provide the flight with the ability to react to lock by performing one or more drag maneuvers. Note that once an aircraft transitions to the RTB ruleset, it will no longer have User Rules capability since the RTB ruleset does not have a User Rules phase.

该选项允许一个航班过渡到指定的RTB规则集。一个航班可以过渡到EADSIM规则集类型RTB的任何规则集。一旦进入RTB规则集，该航班就不能被分配到另一个目标，也不能单独交战目标，直到它降落在基地并再次起飞。然而，RTB规则集确实为飞行提供了通过执行一个或多个拖曳动作对锁定做出响应的能力。请注意，一旦飞机过渡到RTB规则集，它将不再有用户规则能力，因为RTB规则集没有用户规则阶段。

### 4.12.3.25.2 Adjust Max Speed

4.12.3.25.2 调整最大速度

The Adjust Max Speed option allows the modeling of a reduction in aircraft capabilities as a result of damage to an aircraft. When the response executes, the maximum airspeed achievable by the platform is adjusted to either the user-defined speed or the platform’s current max speed times the percentage specified for the response.

调整最大速度选项允许模拟由于飞机受损而导致的飞机能力下降。当响应执行时，平台可实现的最大空速被调整为用户定义的速度或平台当前最大速度乘以响应指定的百分比。

### 4.12.3.25.3 Fly Profile

4.12.3.25.3 飞翔简介

If the Fly Profile option is selected, the aircraft will adopt a user-defined profile relative to its destination. If the destination is home airbase and the flight does not have a home air base, the flight will fly relative to its first waypoint. The profile will terminate either when the aircraft reaches its home base or completes the number of orbits specified on the profile definition. When adopting the profile relative to a target, the profile is completed when it reaches the number of specified orbits.

如果选择了飞行轮廓选项，飞机将采用用户定义的相对于其目的地的轮廓。如果目的地是本国空军基地，而飞行没有本国空军基地，则飞行将相对于其第一个航路点飞行。剖面图将在飞机到达其母港基地或完成剖面图定义上指定的轨道数时终止。当采用相对于目标的剖面图时，剖面图在达到指定的轨道数时就完成了。

### 4.12.3.25.4 Fly Maneuver

4.12.3.25.4 飞翔动作

If the Fly Maneuver flight option is selected, the aircraft will adopt the designated maneuver relative to its destination as described in section 5.6.10. The maneuver segments use termination values to determine completion; and therefore, the maneuver will be completed after all segments have been executed. Examples of other criteria for completion include achieving a change in altitude or a change in direction.

如果选择了飞行机动飞行选项，飞机将采用相对于其目的地的指定机动，如5.6.10节中所述。机动段使用终止值来确定完成；因此，机动将在所有段执行完毕后完成。其他完成标准的例子包括实现高度的改变或方向的改变。

### 4.12.3.25.5 Adopt A CAP

4.12.3.25.5 通过一项补充方案

If selected, the aircraft will adopt a dynamic CAP relative to its destination. The aircraft will be oriented along the CAP Heading and fly along this vector until it reaches the CAP Length. This point will define the Start Pattern latitude and longitude. Meanwhile, the flight will attempt to achieve the speed and altitude defined by the CAP Speed and CAP Altitude. Figure 4.12-3 illustrates an example of a dynamic CAP.

如果选择，飞机将采用相对于其目的地的动态CAP。飞机将沿着CAP的方向飞行，并沿着这个矢量飞行，直到它到达CAP的长度。这一点将定义起始模式的经度和纬度。同时，飞行将试图达到由CAP速度和CAP高度定义的速度和高度。图4.12-3展示了一个动态CAP的例子。

Figure 4.12-3

图4.12-3

### 4.12.3.25.6 Fly RTB Profile

4.12.3.25.6 Fly RTB简介

The purpose of flying the RTB profile is to safely land an aircraft at its home air base. In order to do this, the aircraft must be 15° above the air base's horizon before it can begin its descent. If the aircraft adopts the RTB flight mode before it achieves this 15° threshold, it is required to climb to 5000 meters AGL. If the aircraft is already above 5000 meters when it adopts the RTB flight mode, it will maintain its current altitude until it achieves the 15° threshold.

飞行RTB剖面的目的是为了让飞机安全地降落在其本场的空军基地。为了做到这一点，飞机必须在空军基地地平线以上15°才可以开始下降。如果飞机在达到这个15°阈值之前就采用了RTB飞行模式，它就必须爬升到5000米AGL。如果飞机在采用RTB飞行模式时已经在5000米以上，它将保持目前的高度，直到达到15°的界限。

In Figure 4.12-4, the aircraft adopts the RTB flight mode at 6000 AGL and since it is below the 15° threshold, it maintains this altitude until it reaches the 15° threshold at an approximate distance of 23,500 meters from its base. In Figure 4.12-5, the aircraft is well below 5000 meters and the 15° threshold when it adopts the RTB flight mode. Therefore, the aircraft is required to climb to 5000 meters. Upon reaching 5000 meters, it also is within the 15° threshold and subsequently begins its descent.

在图4.12-4中，飞机在6000AGL时采用了RTB飞行模式，由于低于15°临界点，所以一直保持这个高度，直到到达距离基地约23500米的15°临界点。在图4.12-5中，当飞机采用RTB飞行模式时，其高度远远低于5000米和15°临界点。因此，飞机需要爬升到5000米。到达5000米后，它也在15°的阈值内，随后开始下降。

Helicopters, on the other hand, are required to achieve an altitude of 20 meters AGL when they adopt the RTB flight mode. However, just like other aircraft, a helicopter cannot begin its descent until it is 15° above the air base's horizon.

另一方面，直升机采用RTB飞行模式时，需要达到20米AGL的高度。然而，就像其他飞机一样，直升机在超过空军基地地平线15°时才能开始下降。

Figure 4.12-4

图4.12-4

Figure 4.12-5

图4.12-5

### 4.12.3.25.7 Fly Route

4.12.3.25.7 飞行路线

If Fly Route is selected, the flight will adopt a user-defined route home. The RTB Route is specified on the flight leader's Edit Platform window. When the flight reaches the last waypoint in the route, the flight will adopt the RTB flight mode and vector to base. If no route has been specified, the flight will default by vectoring to base. If the flight does not have a home air base, the flight will fly to its first waypoint. This option is primarily designed for returning an aircraft to home base and therefore has limited usage against a target.

如果选择飞翔路线，航班将采用用户定义的返回基地路线。RTB航线是在编队长机的编辑平台窗口中指定的。当飞行到达航线中的最后一个航路点时，飞行将采用RTB飞行模式并向基地进发。如果没有指定航线，飞行将默认为矢量到基地。如果该航班没有母港基地，该航班将飞往第一个航路点。这个选项主要是为飞机返回基地而设计的，因此对目标的使用有限。

### 4.12.3.25.8 Continue Waypoints

4.12.3.25.8 继续航路点

If Continue Waypoints is selected, the flight will continue to fly its remaining, user-defined waypoint set as its current route. This option is designed for returning an aircraft to its home base. When the flight reaches its last waypoint, it will adopt the RTB flight mode and vector to base. If the flight does not have a home air base, the flight will fly to its first waypoint.

如果选择了继续航路点，飞行将继续飞行其剩余的、用户定义的航路点设置为其当前的航线。这个选项是为飞机返回本场基地而设计的。当飞行到达最后一个航路点时，它将采用RTB飞行模式并向基地传送。如果该航班没有母港空军基地，该航班将飞往其第一个航路点。

### 4.12.3.25.9 Reverse Waypoints

4.12.3.25.9 逆向航路点

If Reverse Waypoints is selected, the flight will fly its user-defined waypoint set in reverse, starting from its last achieved waypoint. This option is primarily designed for returning an aircraft to its home base. When the flight reaches its last waypoint before landing at base, the flight will adopt the RTB flight mode and vector to base. If the flight does not have a home air base, the flight will fly to its first waypoint.

如果选择了反向航路点，飞行将从其最后实现的航路点开始，反向飞行其用户定义的航路点集。这个选项主要是为飞机返回本场基地而设计的。当飞行到达基地降落前的最后一个航路点时，飞行将采用RTB飞行模式并向基地进发。如果该航班没有母港空军基地，该航班将飞往其第一个航路点。

### 4.12.3.25.10 Return To Ruleset Control

4.12.3.25.10 返回到规则集控制

The option to Return To Ruleset Control allows the platform to exit the current User Rules maneuver and return to allowing the ruleset to control its flight. For example, an aircraft might have entered a particular profile while flying within range of a target. However, once it locks on the target, the Return To Ruleset Control option might be invoked to allow the ruleset to fly the aircraft during the engagement.

返回规则集控制的选项允许平台退出当前的用户规则操纵，返回到允许规则集控制其飞行。例如，一架飞机在进入目标范围内飞行时可能已经进入了一个特定的配置文件。然而，一旦它锁定了目标，返回规则控制选项可能会被调用，以允许规则集在交战期间驾驶飞机。

Return To Ruleset Control can also be used in conjunction with Adopt A CAP, Fly RTB Profile, Fly Route, Continue Waypoints, or Reverse Waypoints. If Return To Ruleset Control is used with one of these flight options, the aircraft will fly the flight option accordingly. If the aircraft needs to react to threats while flying the flight option, Return To Ruleset Control will allow the aircraft to respond according to its ruleset. Therefore, it is suggested that these flight options be used with Return To Ruleset Control.

返回规则集控制也可以与采用CAP、飞行RTB配置文件、飞行路线、继续航路点或反向航路点一起使用。如果Return To Ruleset Control与这些飞行选项之一一起使用，飞机将相应地飞行该飞行选项。如果飞机在飞行选项时需要对威胁做出响应，返回规则控制将允许飞机根据其规则集做出响应。因此，建议将这些飞行选项与返回规则控制一起使用。

## 4.12.3.26 Platform Destruction

4.12.3.26 平台销毁

The Platform Destruction option provides the capability to cause the death of a platform as a User Rules response. This may be used to model the delayed destruction of a target, such as when the target is not killed at the time of intercept but is so badly damaged that it can only continue for a specified period of time after the engagement evaluation. When the response executes, the triggered platform is immediately destroyed. However, if the damaged aircraft lands at an airbase prior to the execution of the platform destruction response, the aircraft will not be destroyed.

平台毁灭选项提供了作为用户规则响应导致平台销毁的能力。这可用于模拟目标的延迟摧毁，例如目标在拦截时没有被杀死，但被严重损坏，只能在交战评估后的特定时间内继续。当响应执行时，被触发的平台立即被摧毁。然而，如果受损的飞机在执行平台摧毁响应之前降落在空军基地，那么该飞机将不会被摧毁。

## 4.12.3.27 Launch Weapon

4.12.3.27 发射武器

The Launch Weapon option provides the means to schedule a weapon launch as a User Rules response. When the response executes, the triggering target is added as a commanded target to the platform executing the response and an engagement report is sent. This allows the target to be evaluated for a weapon launch opportunity on the next execution of the platform’s target select phase. A User Rules launch cannot be deconflicted; therefore, any stop commands received on the target will be ignored.

发射武器选项提供了将武器发射安排为用户规则响应的手段。当响应执行时，触发目标被添加为执行响应的平台的指令目标，并发送一份交战报告。这使得该目标在平台的目标选择阶段的下一次执行中被评估为武器发射的机会。用户规则的发射不能被解除；因此，在目标上收到的任何停止命令都将被忽略。

A preferred weapon type may be specified for the launch attempt. If no weapon type is specified or if the specified weapon type is not available on the platform, the platform will used its weapon selection logic to determine the best weapon for launch against the target. A Launch Weapon response can only be executed if the trigger condition has a target associated with it; otherwise the response will immediately complete with no further action performed.

可以为发射尝试指定一个首选的武器类型。如果没有指定武器类型，或者如果指定的武器类型在平台上不可用，平台将使用其武器选择逻辑来确定对目标发射的最佳武器。只有当触发条件有一个与之相关的目标时，才能执行发射武器响应；否则，响应将立即完成，不执行进一步行动。

When the triggering target is a ground platform, the position at which to launch may be errored by a user-specified down range and cross range. The error can be applied to either the triggering target’s position or to the responding platform’s position. If the errored position is relative to the target, the down range is applied along the vector from the platform to the target and the cross range is orthogonal to the down range.

当触发目标是一个地面平台时，发射的位置可能被用户指定的下行距离和交叉距离所误差。该误差可应用于触发目标的位置或响应平台的位置。如果错误的位置是相对于目标而言的，则沿平台到目标的矢量应用下降范围，交叉范围与下降范围正交。

If the position is relative to the responding platform, the down range is in the direction of the platform’s velocity vector, or its orientation if its velocity is 0, and the cross range is orthogonal. A random draw is made from the specified distribution model values to determine the actual down range and cross range applied to the targeted position. If randomness has been eliminated, the mean values are used. If the errored targeting position is applied relative to the platform executing the response, the errored position is then projected to the earth’s surface and the impact evaluation will still be performed against the triggering target.

如果位置是相对于响应平台的，则下行范围是在平台的速度矢量方向上，如果其速度为0，则为其方向，交叉范围是正交的。从指定的分布模型值中随机抽取，以确定应用于目标位置的实际下降范围和交叉范围。如果随机性已被消除，则使用平均值。如果错误的目标位置是相对于执行响应的平台应用的，那么错误的位置就会被投射到地球表面，影响评估仍将针对触发目标执行。

## 4.12.3.28 Detonate Weapon

4.12.3.28 引爆武器

The detonate weapon user rules response detonates a weapon at the time of execution of the response. The weapon event intercept phase processing is used to evaluate the weapon detonation. The detonation occurs relative to the location of the platform executing the response. The weapon CEP is applied as described in MM section 4.4.5. Any type of weapon except for Anti-Weapon, Cruise Missile, and Laser may be specified to be associated with the detonation.

引爆武器用户规则响应在执行响应时引爆了武器。武器事件拦截阶段的处理被用来评估武器引爆态势。爆炸是相对于执行响应的平台的位置发生的。武器CEP的应用如MM4.4.5节所述。除反武器、巡航导弹和激光外，任何类型的武器都可以被指定为与引爆有关。

If the weapon has the area kill option selected, the detonation is evaluated against all platforms within the lethal radius of the weapon including the responding platform. Otherwise, the detonation is only evaluated against the responding platform. If the response is caused by a named trigger from another platform then the detonation events are logged against the platform that caused the initial named trigger to be evaluated. Otherwise, the detonation events are logged against the responding platform.

如果武器选择了区域杀伤选项，则对武器杀伤半径内的所有平台（包括响应平台）的引爆进行评估。否则，引爆只针对响应的平台进行评估。如果响应是由另一个平台的命名触发器引起的，那么引爆事件将针对引起初始命名触发器的平台进行评估记录。否则，引爆事件将针对响应的平台进行记录。

## 4.12.3.29 Change PTL

4.12.3.29 改变PTL

The Change PTL user rules response adjusts the platform’s primary target line (PTL) to the specified azimuth angle. The new PTL can be specified as an absolute angle measured from north or as a relative angle based on the responding platform’s position and either the triggering target’s position or the named trigger source’s position. Once a Change PTL response is executed, all evaluations relative to PTL use the latest PTL set by the user rules. The platform’s scripted PTL timings are ignored until another Change PTL response executes that returns the PTL control back to the platform. The Change PTL response only affects ground platforms.

改变PTL用户规则响应将平台的主要目标线（PTL）调整到指定的方位角。新的PTL可以指定为从北方测量的绝对角度，也可以指定为基于响应平台的位置和触发目标的位置或指定触发源的位置的相对角度。一旦改变PTL响应被执行，所有相对于PTL的评估都使用用户规则设定的最新PTL。平台的脚本PTL定时被忽略，直到执行另一个改变PTL响应，将PTL控制权返回给平台。改变PTL响应只影响到地面平台。

If the PTL angle is specified as relative, the platform’s PTL is calculated based on the LOS vector between the responding platform’s current position and the position of the specified relational platform. The LOS vector’s heading angle relative to north is calculated and the specified azimuth angle is then added to that to determine the absolute PTL angle, between 0-360 degrees, to be used by the platform. If Target is selected as the relative platform and no target is available for the user rules’ trigger event, or if Named Trigger Source is selected but the response is not due to a Named Trigger event, the current PTL is not changed and a URULE\_Stop\_No\_Tgt action is logged.

如果PTL角度被指定为相对的，那么平台的PTL是根据响应平台的当前位置和指定关系平台的位置之间的LOS矢量计算的。计算LOS矢量相对于北方的航向角，然后将指定的方位角加到上面，以确定平台使用的绝对PTL角，在0-360度之间。如果选择了Target作为相对平台，而用户规则的触发事件没有目标，或者选择了Named Trigger Source，但响应不是由于Named Trigger事件，则当前PTL不会改变，并记录URULE\_Stop\_No\_Tgt动作。

## 4.12.3.30 Partial Reload Authorization

4.12.3.30 部分重新加载授权

The Partial Reload Authorization user rules response adjusts the platform’s ability to perform partial reloads as weapons are consumed. This response is only available for those rulesets with the ability to specify partial reloads for their weapon inventories: Flexible SAM, SAM Launcher, and SAM LCS. The platform’s ability to perform partial reloads will initially be set based on the option selected on the system weapon load.

部分重装授权用户规则响应调整了平台在武器消耗时执行部分重装的能力。该响应仅适用于那些有能力为其武器库存指定部分重装的规则集。灵活SAM、SAM发射器和SAMLCS。平台执行部分重装的能力最初将根据系统武器载荷上选择的选项来设置。

The authority to perform partial reloads can then be turned on or off via this user rules response. As launches may not be scheduled while a platform is reloading, this allows the partial reload evaluation to be turned off when conditions may inhibit a decision to reload prior to full weapon inventory depletion, such as the presence of threatening tracks within a certain geometry.

然后，可以通过该用户规则响应打开或关闭执行部分重新装载的权限。由于发射可能不会在平台重新装载时安排，这允许在条件可能抑制在全部武器库存耗尽之前重新装载的决定时，关闭部分重新装载的评估，例如在某个几何范围内存在威胁性轨道。

## 4.12.3.31 Multiple User Rules Responses and Deconfliction

4.12.3.31 多个用户规则的响应和解除冲突

More than one User Rules response can occur at any given time. This allows for flexibility when building rules. However, deconfliction of responses must occur when more than one response is scheduled that controls the same type of device.

在任何时候都可以出现一个以上的用户规则响应。这使得在建立规则时具有灵活性。然而，当安排了一个以上的响应来控制同一类型的设备时，必须对响应进行协调。

Each trigger-response pair has a user-specified priority associated with it. The priority is a measure of how important it is to respond to the trigger. For example, it might be more important for a fighter to RTB when low on fuel than after expending a weapon. The priority is used to deconflict the responses that have been triggered.

每个触发-响应对都有一个用户指定的与之相关的优先级。优先级是对响应触发器的重要性的衡量。例如，对于一架战斗机来说，在燃料不足时进行RTB可能比消耗武器后进行RTB更为重要。 优先级被用来对已经触发的响应进行解调。

Each trigger that is satisfied is deconflicted with the other triggers that have been met, but whose responses have not had time to complete. Once the trigger's response has completed, that trigger's priority is no longer considered. A response is complete when the response time has elapsed, the emitters are cycled, the decoy duration has expired, and when the flight is able to begin its flight option. If the response doesn't contain one of these categories, it is completed after the response time has elapsed.

每个被满足的触发器都会与其他已经被满足的触发器进行解读，但其响应还没有时间完成。一旦触发器的响应完成，该触发器的优先级就不再被考虑。当响应时间已过，发射器被循环使用，诱饵持续时间已过，以及航班能够开始其飞行选项时，响应就完成了。如果响应不包含这些类别中的一个，则在响应时间过后完成。

The deconfliction process evaluates the list of scheduled responses. If the scheduled response and the current response have one or more of the same categories, the priorities are used to determine which response should occur. The categories are shown in the table below.

解除冲突过程评估预定响应的列表。如果预定响应和当前响应有一个或多个相同的类别，则使用优先级来确定应采取哪种响应。这些类别显示在下表中。

Table 4.12-1

表4.12-1

If the new response contains control of a device that is already controlled by another response, the priorities of the triggers that caused the responses are compared. If the new response originated from a higher priority trigger than the currently executing response, the currently executing response is cleared and the new response initiated. If the new response originated from a lower priority trigger, then the new response is ignored.

如果新的响应包含对已经被另一个响应控制的设备的控制，则比较引起这些响应的触发器的优先级。如果新响应源于比当前执行的响应优先级更高的触发器，则清除当前执行的响应并启动新响应。如果新的响应来自于较低优先级的触发器，那么新的响应被忽略。

Responses are considered complete entities. That is, if one part of a response conflicts and is of lower priority, the entire response fails. Likewise, an entire response will be cleared if it contains control of any device that conflicts with the new response, given the new response originated from a higher priority trigger than the conflicting response.

响应被认为是完整的实体。也就是说，如果响应的一个部分发生冲突且优先级较低，整个响应就会失败。同样，如果整个响应包含与新响应相冲突的任何设备的控制，那么整个响应将被清除，因为新响应源于比冲突响应更优先的触发器。

# 4.12.4 Translation of Countermeasures Trigger Definitions

4.12.4 反措施触发定义的翻译

The User Rules phase existed as the Countermeasures phase through Version 8.00 of EADSIM. The majority of the triggers available in the Countermeasures phase translate directly to the User Rules phase. Several trigger conditions that were available as Countermeasures triggers have been converted to events.

在EADSIM的8.00版本中，用户规则阶段作为反措施阶段存在。反措施阶段的大部分触发器可以直接转换到用户规则阶段。一些作为反措施触发器的触发条件已被转换为事件。

-        Local Track Initiation

- 本地轨道启动

-        Commanded Assignment Received

- 收到的指令性任务

-        Initialization Trigger

- 初始化触发器

-        Lost External Air Picture

- 丢失的外部空气图片

-        Regained External Air Picture

- 重新获得的外部空气图片

-        Lost Commanded Sensor

- 丢失命令的传感器

-        Regained Commanded Sensor

- 保留指令的传感器

-        Lost Commander

- 失落的指挥官

-        Death of Commander

- 指挥官之死

-        Regained Commander

- 夺回指挥官

-        Lost Subordinate

- 丢失的部下

-        Death of Subordinate

- 下属的销毁

-        Regained Subordinate

- 保留的附属品

## 4.12.4.1 Sensor Platform Status Triggers

4.12.4.1 传感器平台状态触发器

For the EMCON authority to maintain the picture provided by sensors, status messages are exchanged between commanded sensors, external surveillance platforms, and the EMCON authority. If a sensor platform either sends a message that it is shutting its emitters down or does not check in with a periodic status message, the EMCON authority schedules its User Rules phase to determine what coverage changes must occur to maintain adequate sensor coverage of its track area of interest. When a sensor platform indicates it now has its sensors turned back on, the EMCON authority schedules its User Rules phase to determine if coverage is at the optimal level or if other sensor platforms should be commanded to turn on or off.

为了使EMCON机构保持传感器所提供的画面，状态信息在被命令的传感器、外部监视平台和EMCON机构之间进行交换。如果一个传感器平台发送消息说它正在关闭它的发射器，或者没有用定期状态消息报到，EMCON当局就会安排其用户规则阶段，以确定必须发生什么战斗机交战区变化，以保持传感器对其感兴趣的轨道区域的充分战斗机交战区。当一个传感器平台表示它现在已经重新打开了它的传感器，EMCON机构就会安排它的用户规则阶段，以确定战斗机交战区范围是否达到了最佳水平，或者是否应该命令其他传感器平台打开或关闭。

External surveillance platforms are specified and associated by the user for the EMCON authority platform. These surveillance platforms are any Flexible SAM or Flexible Commander platforms that are not in the EMCON authority's command chain but are sending track data to the EMCON authority. The triggers that are used for the status of these platforms are lost external air picture and regained external air picture.

外部监视平台是由用户为EMCON当局平台指定和关联的。这些监视平台是任何不在EMCON当局指挥链中，但向EMCON当局发送跟踪数据的灵活SAM或灵活指挥官平台。用于这些平台状态的触发器是丢失的外部空气图像和重新获得的外部空气图像。

Commanded sensor platforms are those platforms in the EMCON authority's command chain. These platforms should not be placed on the external surveillance list: they will be automatically associated as commanded sensor platforms. The triggers that are used for status changes in these platforms are lost commanded sensor and regained commanded sensor.

被指挥的传感器平台是指在EMCON当局的指挥链中的那些平台。这些平台不应放在外部监视名单上：它们将被自动关联为受命传感器平台。用于这些平台状态变化的触发器是丢失的指令传感器和重新获得的指令传感器。

## 4.12.4.2 Status of Commander/Subordinate Triggers

4.12.4.2 指挥官下级触发器的状况

The Death of Commander, Lost Commander, and Regained Commander events allow the User Rules phase to initiate reactions during changes in a platform's commander status. The Death of Subordinate, Lost Subordinate, and Regained Subordinate events initiate reactions due to changes in the status of platform's subordinates. The Lost or Regained status of the commander or subordinate is verified through the communications messages specified in the ruleset definition. These triggers can be used to choose an alternate commander for the lost or dead platform's subordinates, and the original commander can be restored if communication is regained.

指挥官销毁、失去的指挥官和重新获得的指挥官事件允许用户规则阶段在平台的指挥官状态变化时启动响应。下属销毁、丢失的下属和被保留的下属事件启动了对平台下属状态变化的响应。指挥官或下属的丢失或被扣留状态是通过规则集定义中指定的通信信息来验证的。这些触发器可用于为丢失或销毁的平台下属选择一个备用指挥官，如果通信恢复，可恢复原指挥官。

# 4.12.5 Translation of RTB Trigger Definitions

4.12.5 RTB触发器定义的翻译

The RTB options existed separate from the Countermeasures phase through EADSIM Version 8.00. These options now exist in the User Rules phase. Scenarios developed under versions of EADSIM through 8.00 will be translated upon initialization into the User Rules construct. The Low Weapon Inventory trigger has been changed to have an event for weapon expended. The weapon counts are now listed in the Aircraft Weapon Inventory status condition. Old versions of this trigger will automatically translate to include the event for weapon expended and the status condition with weapon inventory counts.

在EADSIM 8.00版中，RTB选项与反措施阶段分开存在。这些选项现在存在于用户规则阶段。在EADSIM 8.00版本下开发的场景将在初始化时被转换为用户规则结构。低武器库存触发器已被修改为有一个武器消耗的事件。武器数量现在被列在飞机武器库存状态条件中。这个触发器的旧版本将自动转换为包括武器消耗的事件和武器库存数量的状态条件。

The Reached Max Shots Per CAP trigger has been translated to an event and a status condition. Each time a fighter expends a weapon, the maximum shots per CAP is computed. When the maximum number of shots is reached, an event occurs. Old trigger definitions have been translated to include the event for reaching maximum shots and the status condition of Reached Max Shots Per CAP.

达到每CAP最大发弹量的触发器已经被转化为一个事件和一个状态条件。每次战斗机消耗武器时，都会计算出每个CAP的最大射击次数。当达到最大射击次数时，会发生一个事件。旧的触发器定义已经被翻译成包括达到最大射击量的事件和达到每CAP最大射击量的状态条件。

The Reached Minimum Flight Size trigger has been changed to an event and a status condition. Each time a member of the flight dies, an event is logged for the flight size change. The status condition allows specification of the threshold flight size. Once the flight reaches that size or falls below that size, a response can occur.

达到最小飞行规模的触发器已被改为一个事件和一个状态条件。每次有飞行成员销毁，都会记录一个飞行规模变化的事件。状态条件允许指定临界飞行规模。一旦航班达到该规模或低于该规模，就会发生响应。

The Exceeded Mission Time trigger has been changed to an event and a status condition. When the specified mission time is reached, the User Rules phase is triggered with an event for exceeding mission time. Old trigger definitions have been converted to use the Event trigger with the action for exceeded mission time, along with the status condition for Exceeded Mission Time.

超出任务时间的触发器已被改为事件和状态条件。当达到指定的任务时间时，用户规则阶段会因为超过任务时间而触发一个事件。旧的触发器定义已经转换为使用事件触发器，对超过的任务时间进行操作，同时使用超过任务时间的状态条件。