

MISSION OVERVIEW

DATE: 26 Feb 2022

TIME: 11:00:00

TASK: SCAR & XAI mission practice.

COMMs:

Unicom: 242.000

Gudauta ATC: 259.000 / TCN:59X

London ATC: 259.100 / TCN:58X

Shell-1 (KC-135): 244.000 / TCN:44X

Emergency: 124.000

16000 ft / 210 IAS

XAI

Flight		Freq	GRP ID	L Code	Holding Point
Hawg 1	2xA-10C	31 Mhz	1	151x	Adder
Hawg 2	2xA-10C	32 Mhz	2	152x	Banks
Hawg 3	2xA-10C	33 Mhz	3	153x	Chevy
Hawg 4	2xA-10C	34 Mhz	4	154x	Dodge
Hawg 5	2xA-10C	35 Mhz	5	155x	Edsel
Hawg 6	2xA-10C	36 Mhz	6	156x	Ford

Plan treningu:

1. Start VFR z Gudata RWY 33
2. Wejście w holding nad wyznaczonym punkcie
3. Wykonanie misji XAI koordynowanej przez flight SCAR
4. (Opcjonalnie) Trening AAR
5. Powrót i lądowanie VFR na Gudata RWY 33

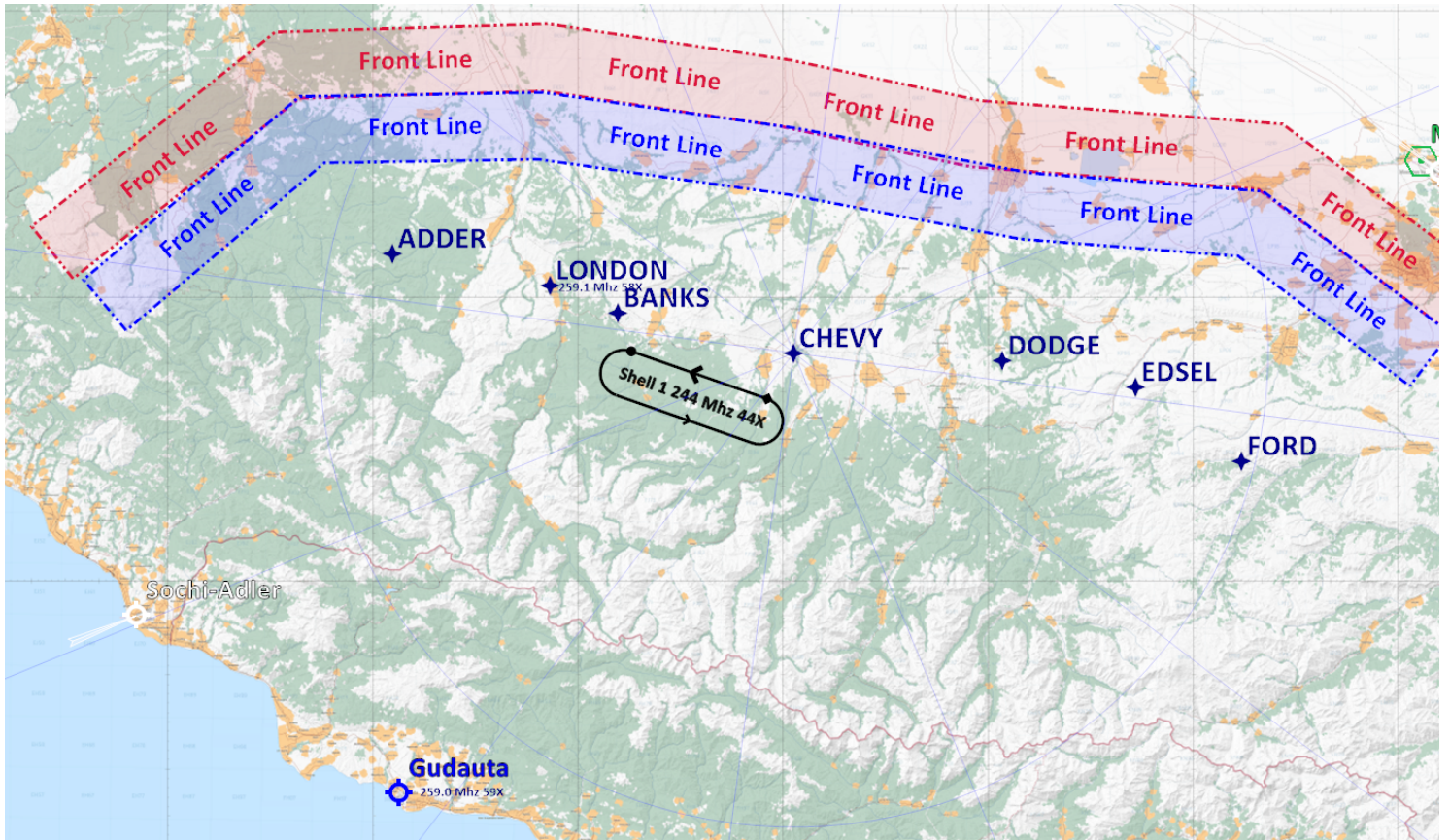
SCAR/FAC(A)

Flight		Freq	GRP ID	L Code	Remarks
Tusk 1	1xA-10C	131 Mhz	11	-	
Tusk 2	1xA-10C	132 Mhz	12	-	

Plan treningu:

1. Start VFR z London RWY 32
2. Przeprowadzenie misji SCAR nad wyznaczonym rejonem
3. (Opcjonalnie) Trening AAR
4. Powrót i lądowanie VFR na London RWY 14

MAPs

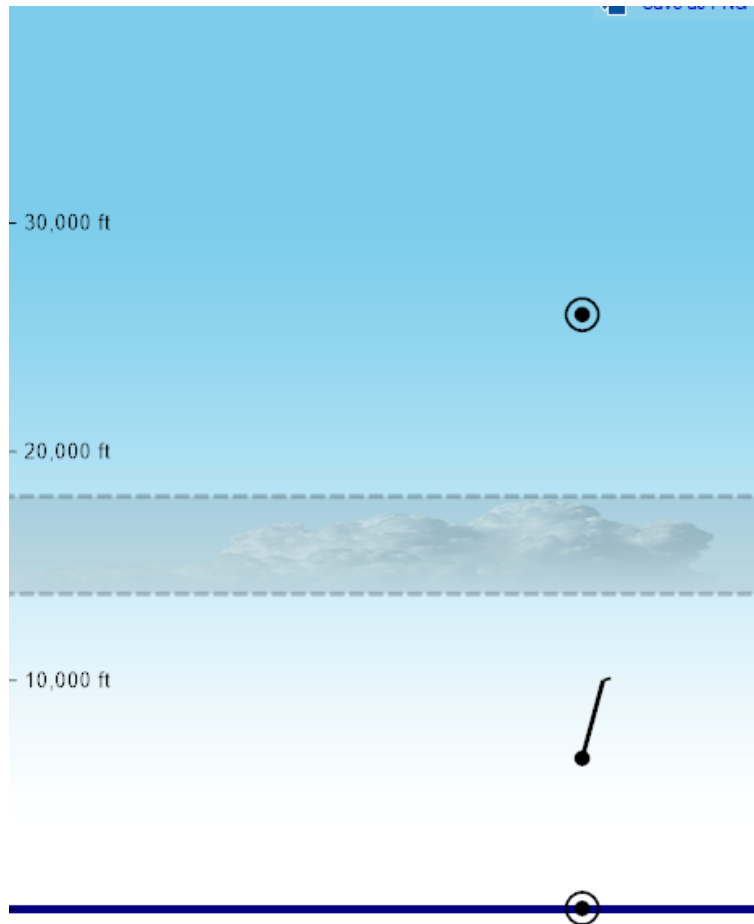


NAV POINTS

NAME	LAT	LONG	MGRS	
ADDER	N44:04.508	E040:32.890	37T FJ 23967 81382	OTHER
BANKS	N43:58.264	E041:05.851	37T FJ 68250 70798	OTHER
CHEVY	N43:54.101	E041:31.539	37T GJ 02829 64054	OTHER
DODGE	N43:53.246	E042:02.076	38T KP 61798 63646	OTHER
EDSEL	N43:50.544	E042:21.503	38T KP 87647 57761	OTHER
FORD	N43:42.699	E042:37.017	38T LP 08015 42606	OTHER
LONDON	N44:01.176	E040:55.964	37T FJ 54905 75865	OTHER

NAME	LAT	LONG	MGRS	MAG VAR
BULLSEYE	N43:54.103	E041:31.539	37T GJ 02829 64057	7.6°

WEATHER



METAR 31004KT CAVOK 10.39999961853 Q1013 RMK FBL TURB BLU=

Brevity na dziś¹:

INVESTIGATE - Verify specified element(s) of ROE, positive identification(PID), collateral damage estimate(CDE) and/or coordination of forces on the referenced target/track.

TARGET - 1. Assignment of targeting responsibilities. 2. ROE, PID, coordination of forces and commander's guidance requirements on the referenced target/track have been satisfied. Target/track correlation and CDE must be accomplished prior to employing ordnance/fires.

SMACK - Clearance to employ ordnance/fires on surface target coordinates. ROE, PID, CDE, coordination of forces and commander's guidance requirements on the referenced target/track have been satisfied and coordinate accuracy is sufficient for GPS weapon employment.

¹ Źródło: JOINT BREVITY WORDS PUBLICATION APP-7(E)

Teoria²

SCAR (Strike Coordination and Reconnaissance) missions are flown to detect targets so coordinated attacks or reconnaissance can be performed on those targets. SCAR missions operate in specific geographic areas as an element of the C2 interface to coordinate multiple flights, detect and attack targets, neutralize enemy air defenses, and provide BDAs. The specific geographic area may be defined by an Airspace Control Means (ACM) or fire support coordination measure (FSCM) where potential targets are known, or suspect, to exist. Typical SCAR tasks include sequencing and deconflicting multiple attacking flights while providing target guidance and enemy air defense updates to maximize the effect of each sortie.

XAI is the AI term used to identify a scheduled mission that provides airpower to a designated area versus a preplanned target and is flown when targets are not known or briefed in advance (also referred to as armed reconnaissance). During these missions the aircrew finds and attacks targets of opportunity (i.e., enemy materiel, personnel, and facilities) in assigned areas.

AI - Mission Planning

a. AI mission planning involves determining the supported commander's intent/desired effects, coordinating strikes (lethal and nonlethal) to maximize effects on the enemy, and reviewing engagement criteria. AI mission planning is normally based on the following factors (also known as the 4 T's):

- (1) Task
- (2) Target
- (3) Threat
- (4) Tactics

b. Planning guide. Annex B shows an example of a planning guide to facilitate AI/SCAR mission preparation. Refer to current SPINS for AOR-specific briefing considerations and include DT/SCAR information in aircrew smart packs in case missions are re-tasked while airborne. In addition, the SCAR should carry a coordination card to effectively manage assets, allocate targets and record BDA.

SCAR-specific mission planning

SCAR mission planning includes deconfliction / integration of assets, and locating and identifying targets, considered in the following paragraphs:

a. Locating and Identifying the Targets. Several planning considerations assist with locating and identifying a target. AI assets should gather information on the types and locations of targets through intelligence briefs, develop different search strategies and understand the target prioritization for the AO.

- (1) Target types. Basic target types for AI are fixed and mobile. Target folders should be available for fixed targets, but may not be available for mobile targets.

² Źródło: NATO STANDARD ATP-3.3.2.1 TACTICS, TECHNIQUES AND PROCEDURES FOR CLOSE AIR SUPPORT AND AIR INTERDICTION, Edition D, Version 1, APRIL 2019

AI assets should analyze the AO to develop specific points of interest (POI) lists that will facilitate effective searching for mobile targets once airborne.

(2) Imagery. The imagery of specific waypoints or POI can be printed and carried in flight to help verify search areas. In addition, an AI target folder with photos of enemy order of battle/visual ID packet may be helpful to achieve PID.

(3) Communication. While the AI assets are on station, other assets such as JSTARS or SOF may find potential targets and pass the information to the aircraft. This information may be passed via voice or data link normally using an attack brief; but as a minimum, should include a target location and a brief description.

b. Deconfliction / integration of assets. Within a geographic area, a deconfliction plan must be applied to enable AI assets to arrive/depart and operate within the designated AI working area. Deconfliction can be accomplished using altitude, lateral or time separation or any combination of the three. The following considerations should be taken into account:

(1) Details of any planned air interdiction strikes that affect the AI mission(s).

(2) ACMs and FSCMs to support AI missions already established.

(3) Location of holding patterns.

(4) Location and deconfliction of friendly assets.

(5) Assigned airspace based on aircraft capabilities and the priority of those capabilities to create desired effects.

(6) Entry and exit of the SCAR working area without interfering with other SCAR/AI assets.

(7) Use of safety margins between assigned airspace.

(8) Likely enemy locations.

(9) Attack profiles and weapons flight paths.

(10) Communications plan.

(11) Entry and exit of the SCAR working area without interfering with AI assets.

c. Holding / Deconfliction Planning Considerations. During AI mission planning, the planners/aircrew should examine available airspace and ATO tasked AI assets to formulate a holding/deconfliction plan.

SCAR considerations.

(1) The SCAR should be familiar with the general capabilities and limitations for strike assets. This includes standard weapons load out, data link capabilities, sensor capabilities and loiter potential. Time permitting the SCAR can directly contact assigned assets for an expanded capabilities brief specific to the ATO tasked mission.

(2) The SCAR should maximize all available capabilities to perform accurate and timely BDA. This includes all available sensors within their formation as well as UAS, reconnaissance aircraft, SOF and electronic intelligence to confirm the effectiveness of the strikes.

SCAR & AI Mission Execution

SCAR 9-line Attack Brief
“(Fighter C/S), (SCAR C/S), this is an (Investigate / Target / Strike / Smack) tasking (track number_____)
1. IP / Bullseye
2. Heading
3. Distance
4. Elevation
5. Target description
6. Coordinates
7. Marks
8. Friendlies
9. Egress
Remarks / Restrictions
Coordinate category
CDE
Other amplifying information

Table 9-2: SCAR 9-line attack brief

SCAR Tasking Examples.

The following examples illustrate the different methods of tasking and various attack briefs.

(a) INVESTIGATE:

1/ Arrow 51 (F-16), investigate tasking to follow: “Investigate Track 12345 in vicinity of alternate supply route (ASR) Atlantic, suspected enemy armored column moving north to south.”

(Engagement authority is not inherent in INVESTIGATE tasking. This implies the AI asset will conduct a detailed route search and then report back.)

2/ Ghost 41 (F/A-18), investigate tasking to follow: Investigate ASR Pacific for armored personnel carriers (APCs) and main battle tanks (MBTs). If MBTs are found, you are approved to target, make all attacks east to west.”

(In this example the SCAR has granted engagement authority, provided MBTs are found, PID/ROE established, and target correlation/CDE have been satisfied to decrease time to kill. The SCAR has not granted engagement authority for APCs because, for this example, MBTs are of higher priority.)

(b) TARGET:

1/ Viking 11 (AV-8) target tasking to follow: “elevation 150 feet MSL, two MBTs, single APC, Keypad 1 in vicinity of (IVO) MSR Evergreen/ASR Atlantic intersection, grid 11S QR 123 456. Remain within quadrant 1. Engagement authority has been granted.

(No further coordination is required once target correlation and CDE have been satisfied. In this scenario the SCAR has issued only those restrictions necessary to make the attacks successful.)

2/ Single Target Set, Multiple Strike Assets:

a/ Tiger 61 (F-16), Stalker 11 (AH-1) target tasking to follow: Target set is four APCs, two MBTs, one ZSU 23-4 traveling west to east on MSR Evergreen, three miles east of the Evergreen-Pacific intersection."

b/ Tiger 61 and Stalker 11 standby for attack brief. Tiger 61: Lines 1-3 Bravo8; 1305 feet; ZSU 23-4; 11S QR 456 789; negative mark; South 7400; egress to Delta 8; make attack east to west, stay above 8,000 feet MSL, TOT 48. "Stalker 11: Lines 1-3 Charlie 4; 1305 feet; multiple APCs and MBTs; 11S QR 456 789; Tiger 61 impacts; egress Charlie 4; make all attacks south to north, remain Charlie 4 and south until Tiger 61's attacks are complete, TOT window 50 until attacks complete."

(Engagement authority has been granted, once target correlation and CDE have been satisfied. Stalker 11 is a RW aircraft and is the closest friendly asset; therefore his position is given in line 8. Due to the ZSU 23-4 threat, the SCAR issued complete attack briefs to integrate fires in the most expeditious manner).

(c) STRIKE:

1/ Thunder 71 (F-16), strike tasking to follow: Elevation 330 feet, single MBT, 3456.78N 01234.56E."

(In this example the SCAR has already established PID, CDE, and ROE. Engagement authority has been granted once target correlation has been satisfied. The SCAR chose to use a modified 9 line by only passing lines 4-6. If the AI asset has more than one type of munition, strike tasking should also specify a weapon in remarks to ensure CDE has been met).

(d) SMACK:

1/ Ghost 62 (F/A-18), smack tasking to follow: Elevation 1310 feet, single piece of artillery, 10-digit grid to follow: 11S QR 12345 67890."

(In this example the SCAR has already established PID, CDE, ROE, and no further target correlation is required. Engagement authority has been granted, no further communication is required between AI asset and the SCAR. The SCAR chose to use a modified 9 line by only passing lines 4-6. If the AI asset has more than one type of munition, smack tasking should also specify a weapon in remarks to ensure CDE has been met).

2/ AI asset requires support: Star 31 (F/A-18), single APC traveling north to south on ASR Atlantic, request 1XGBU-12, my LASER, smack tasking to follow: Lines 1-3 Alpha 8; 1,350 feet; single APC; 11S QR 123 456; LASER 1688; egress Delta 8, block 15-18K.

Final attack heading 170-190, LASER-to-target line (LTL) 150, request IP inbound, TOT 34.”

(In this example, the SCAR has determined it is not necessary for the AI asset to accomplish target correlation. The SCAR has completed all requirements to employ ordnance/fires for the target set including, passing a LTL and final attack headings to ensure deconfliction.

KILLBOX

A.1.1. Description

A killbox (KB) is a three-dimensional fire support coordination measure (FSCM) with an associated airspace coordinating measure (ACM) used to facilitate the integration of joint fires and the coordination of the airspace within. A killbox is a measure, not a mission.

A.1.2. Purpose

- a. Killboxes are established to support AI efforts as part of the Joint Force Commander's (JFC's) joint targeting process. Killboxes allow lethal attack against surface targets without further coordination with the establishing commander and without the requirement for terminal attack control. When used to integrate air-to surface and subsurface / surface-to-surface indirect fires, the kill box will have appropriate restrictions. These restrictions provide a three-dimensional block of airspace in which participating aircraft are de-conflicted from friendly surface fires. The restrictive measures also prevent non-participating aircraft and maneuver forces from entering the kill box. The goal is to reduce the coordination required to fulfill support requirements with maximum flexibility (permissive attributes) while preventing fratricide (restrictive attributes).
- b. All aircrews executing missions within the confines of a kill box will execute in accordance with ROEs, the Law of Armed Conflict, and SPINS applicable to their assigned mission. Specific missions found in an air tasking order (ATO) applicable to this publication are air interdiction (AI) and strike coordination and reconnaissance (SCAR).
- c. A kill box is established and adjusted by supported component commanders in consultation with superior, subordinate, supporting, and affected commanders. It is an extension of an existing support relationship established by the JFC. Requirements for kill boxes and other control measures are determined using normal component targeting and planning processes and are established and approved by commanders or their designated staff. Information about the type, effective time, duration, and other attributes will be published and disseminated using existing voice and digital command and control (C2) systems.

A.2.1. Terminology

a. Killbox Types

- (1) Blue kill box (BKB). The primary purpose of a BKB is to facilitate the attack of surface targets with air-to-surface munitions without further coordination with the establishing headquarters.
 - (2) Purple kill box (PKB). The primary purpose of a PKB is to facilitate the attack of surface targets with subsurface-to-surface, surface-to-surface, and airto-surface munitions without further coordination with the establishing headquarters.
- b. Established. The killbox is planned, approved with an effective time, and disseminated.
 - c. Effective Time. The killbox effective time begins when the killbox status is scheduled to become hot and ends when the killbox is canceled.
 - d. On-Order. An on-order killbox is a planned coordinating measure to support ongoing and future operations. The term does not describe a killbox status and it is not published in the airspace control order (ACO). Additional information and coordination is required to establish the killbox. Typically, on-order killboxes are event triggered (e.g., target time of appearance in the operational area is unknown during planning).
 - e. Canceled. The killbox is no longer established.

f. Status. Killbox status is described in two parts: Permitted fires and effects and airspace status. The fires status addresses fires and effects on the killbox's target area. The airspace status addresses the availability and airspace restrictions in the killbox. See table 9-3 for a killbox status cross reference.

		AIRSPACE STATUS	
		OPEN	CLOSED
		Aircraft permitted (with coordination)	Aircraft Prohibited
FIRES STATUS	HOT	Fires permitted Aircraft permitted	Fires permitted Aircraft prohibited
	COLD	Fires require coordination Aircraft permitted	Fires require coordination Aircraft prohibited
Note: This cross reference assumes no other fire support or airspace coordinating measures are present in the kill box. Restrictive coordinating measures will always have priority when established in a kill box.			

Table 9-3: Killbox Cross Reference

(1) Fires and effects. A killbox fires status can either be HOT or COLD.

(a) HOT. Describes a killbox or a portion of a killbox where fires or effects of fires are allowed without further coordination or de-confliction. See figure A-1 for an example.

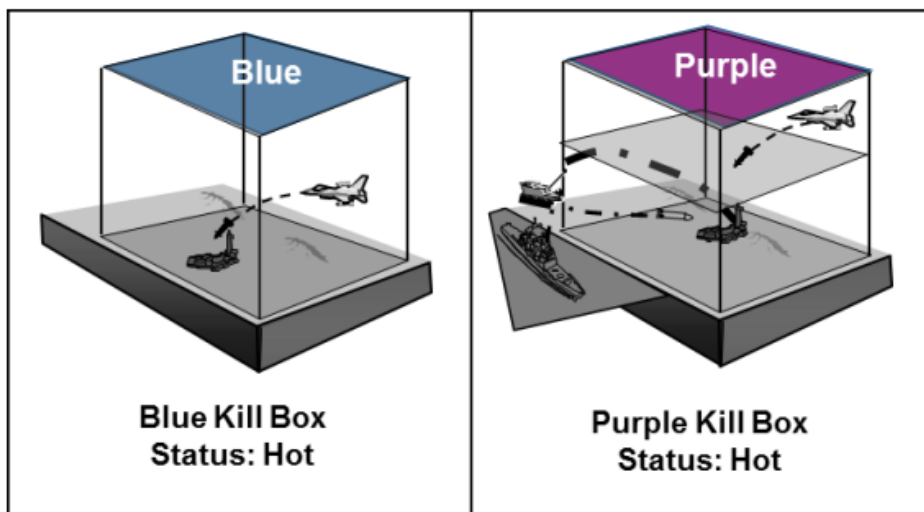


Figure A-1: Hot killboxes

(b) COLD. Describes a killbox or portion(s) of a killbox where fires or effects of fires are not allowed without further coordination. A cold killbox does not restrict the airspace associated with the killbox. See figure A-2 for an example.

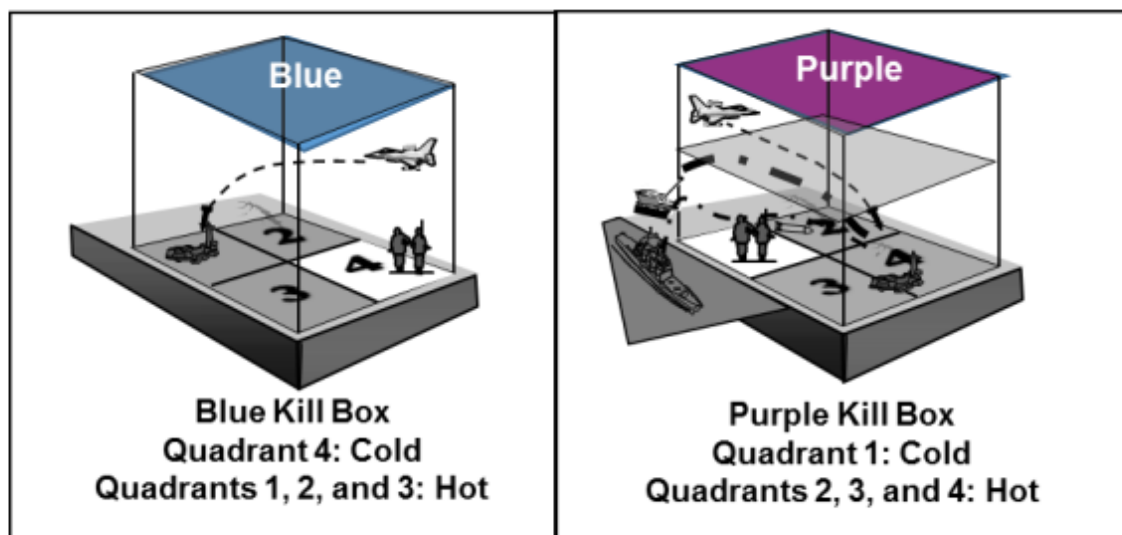


Figure A-2: Cold killboxes

(2) Airspace status. Within a killbox, the airspace will be designated as either OPEN or CLOSED.

(a) OPEN. Manned and unmanned aircraft are cleared to operate inside the killbox ACM or designated segments. See figure A-3 below for an example.

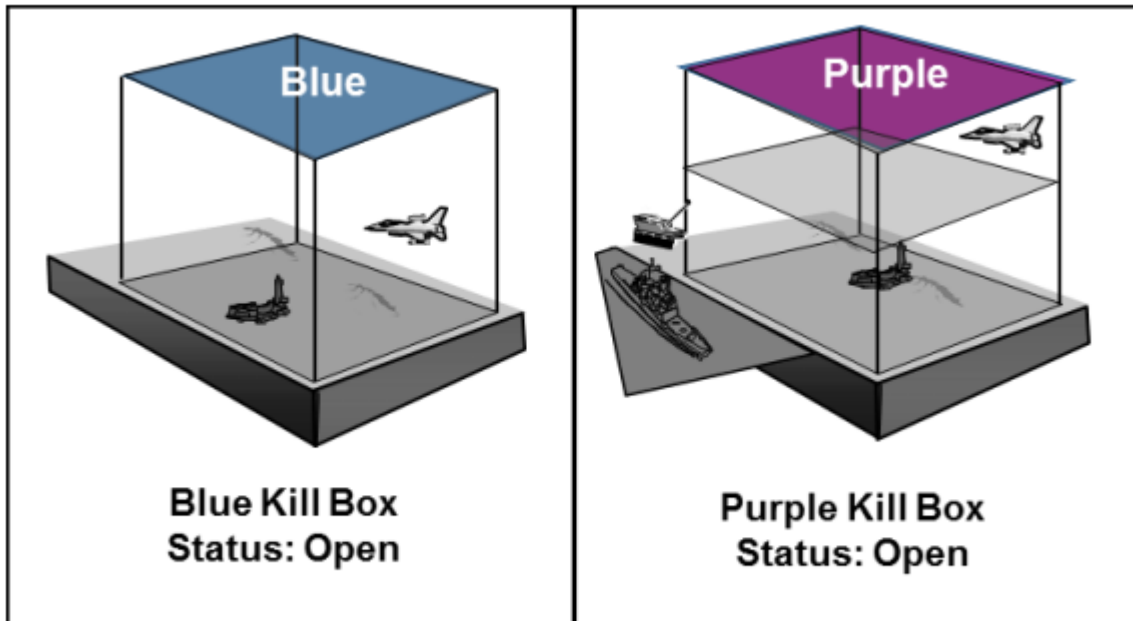


Figure A-3: Open killboxes

(b) Closed. Aircraft are restricted from operating inside the killbox or designated segments of it [to include unmanned aircraft system (UAS) unless otherwise authorized]. See figure A-4 below for an example of closed killboxes.

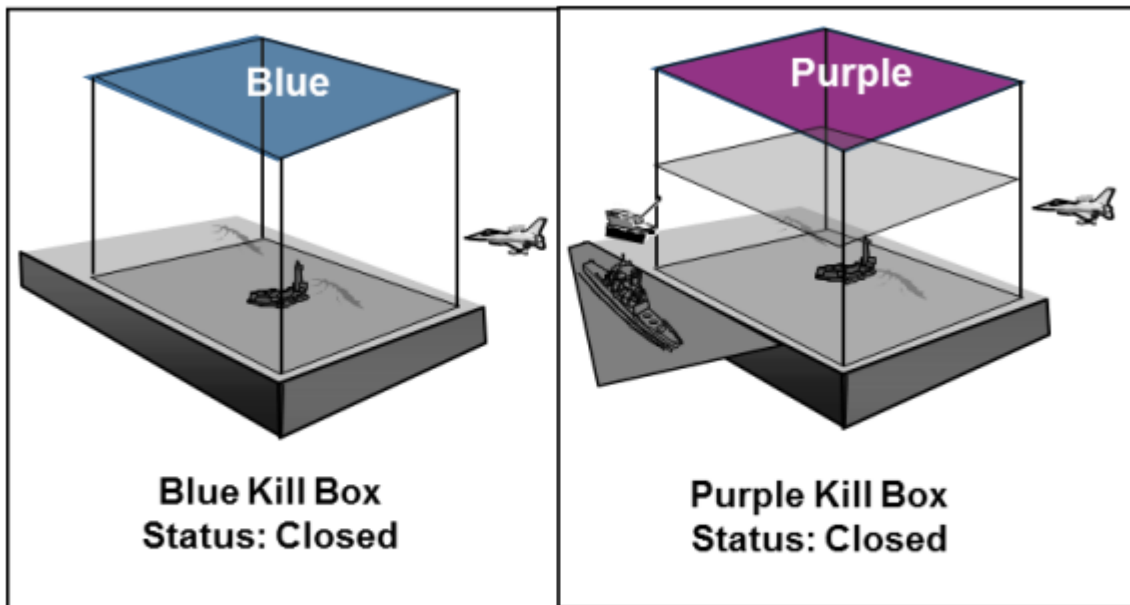


Figure A-4: Closed killboxes