ANNEX 3

DEFINITIONS

D1. Realistic Training Sortie (RTS) means a demanding and realistic Surface Attack Tactics (SAT) sortie, in accordance with the further descriptions provided below, as applicable.

D1.1. Configuration: For a SAT-3T Training Sortie, the aircraft, manned with two aircrew, will be configured with 2x Mk-82s (or BDU-50s), forward firing guns armed with a minimum of 400 rounds, EO/IR sensor, one canister of self-protection flares and sufficient fuel to complete the First Sortie Training Profile described below.

D1.2. Launch and Recovery: A Launch and Recovery RTS is defined as a formation of two aircraft that taxi, takeoff, and land with two aircrew in each aircraft. Takeoff conditions are 4000' pressure altitude, 95 degrees F and paved runway for initial takeoff. Initial practice landing and subsequent takeoff from an austere field will be from a dry, unimproved surface with a CBR-5 similar to those defined in AFI 13-217, Drop Zone and Landing Zone Operations, 10 May 2007, paragraph 3.4.2. Austere field environmental conditions are the same as the initial departure field conditions described above. Austere field support by the aircrews includes only over-wing refueling, re-loading of the gun and self-starting for subsequent takeoff. The final landing will be back at the home station with the same conditions listed for the initial takeoff.

D1.3. Communications: One radio is dedicated to ATC, while the other is used for inter-flight and Tactical Air Control System (TACS) coordination which may also be simulated between front/rear cockpit and or wingman aircraft. C2 is accomplished enroute using line-of-sight radios, checking in with controlling agencies and receiving an area update (AO) and targeting data. Once on range, one radio will be used for inter-flight and the other for communicating with the Joint Terminal Attack Controller (JTAC) or Range Control Officer (RCO).

D1.4. First Sortie Flight Profile: The flight climbs through the weather breaking out above 8000' MSL continuing to 17,000' MSL and flies High Altitude Tactical Formation (HATF) at cruise speed enroute to the range, concurrently performing system and sensor checks, flying 100 NM to the bombing range where the weather is clear below FL200. Once on range the flight performs training with 45 minutes of scheduled range time. Weapons employment starts from medium altitude, and continues to transition to lower altitudes as the profile develops. Freefall weapons are employed from an offset wheel using a "Shooter-Cover profile" delivered in singles and/or ripple quantity 2 modes from a High Altitude Dive Bomb (HADB) utilizing a combination of the onboard sensor, visual lookout, and binoculars for target acquisition. Following the completion of freefall deliveries, the flight executes High Angle Strafe (HAS) from base altitudes of 6K' AGL and Low Angle Strafe (LAS) from base altitudes of approximately 1500' AGL. During one of the passes, a simulated IR Surface-to-Air Missile (SAM) launch will be identified to which the flight reacts with defensive flares and maneuvers to defeat the simulated threat. Upon completion of the range work, the flight departs low altitude for Low Altitude Tactical Navigation (LATN) enroute to the

austere/unimproved field for Forward Area Refueling Procedures training within 100 NM of the range.

D1.5. Second Sortie Flight Profile: Upon completion of re-fuel/re-arm the flight returns to the range for additional syllabus support of SAT-4T. Upon checking in with the JTAC, the flight is tasked with providing Armed Reconnaissance, escorting the convoy that the JTAC is in, while the ground element moves to seize an objective. Utilizing the EO/IR sensor, the flight uses split-sensor ops with one flight member covering the friendly's movement and the other covering the objective. The wingman orbiting at 14000' AGL, tasked with covering the objective identifies possible combatants moving to firing positions near the objective with his EO/IR sensor, shifting from wide angle to narrow field of view. The coordinates generated by the wingman with a laser designator are passed in scenario to the JTAC for the potential targeting process. The JTAC calls for multiple high and low altitude strafe passes from the flight. After 45 minutes on station the flight departs the range to return to base. Enroute the flight performs a Battle-Damage Check while RTB, then climbs to FL250 and cruise speed and performs an instrument formation precision approach (ILS) through the weather back at the home station with the required divert fuel reserves. The flight is able to subsequently debrief the sorties utilizing digitally recorded mission data in the squadron.

D2. Mission Critical Failure means a failure of a primary aircraft system that results in cancellation or air abort of the training mission. The following equipment must be considered operational to preclude early termination of the sortie and for mission accomplishment: engine, hydraulics, fuel system, electrical generator, environmental system, normal flight controls, landing gear, Heads Up Display (HUD), Stores Management System (SMS), and at least one radio per aircraft.

D3. Standard Conventional Loads (SCLs) means normally expected combat and training loads and allow for flexibility of loadout between GP bombs, PGMs, rockets, external fuel and specialized stores, including the following:

All SCLs include a EO/IR ball and M-206-equivalent decoy flares. GBU may be GBU-12/58 or GBU-38/54. GP bombs may be Mk-81, Mk-82, BDU-50, all low drag.
REC1 2 x External Fuel, Gun, 2 x GBU

CAS1 Gun, 2 x GBU, 2 x LAU-131 (or equivalent) with 7 Hydra
CAS2 Gun, 4 x GBU

RESC Gun, 2 x External Fuel, 2 x LAU-131 (or equivalent) with 7 Hydra

TRN1 gun, 2 x GP bomb, 2 x LAU-131 (or equivalent) with Hydra
TRN2 gun, 4+ x BDU-33

ASA Gun, 2 x fuel, 1 or 2 x AIM-9
FERRY Max external fuel, 1 or 2 MXU-648 cargo pod

D4. California Bearing Ratio (CBR) means the rating developed for measuring the load-bearing capacity of soils used for building roads, which can also be used for measuring the

load-bearing capacity of unimproved airstrips or for soils under paved airstrips. The harder the surface, the higher the CBR rating. A CBR of 3 equates to tilled farmland, a CBR of 4.75 equates to turf or moist clay, while moist sand may have a CBR of 10. High quality crushed rock has a CBR over 80. The standard material for this test is crushed California limestone which has a value of 100.

D5. Austere Field means unsophisticated airfield, usually with a short runway, that is limited in one or a combination of the following: taxiway systems, ramp space, security, materials, handling equipment, aircraft servicing, maintenance, navigation aids, weather observing sensors, and communications.

D6. Air Sovereignty Alert is an Air National Guard mission and is of particular interest for defense of the National Capital Region. Currently, air defense responsibilities for general aviation aircraft that penetrate the 50 nm circle around Washington DC are accomplished with Air Guard F-16s, and helicopters owned by US Customs & Border Protection and the US Coast Guard.