

LESSON PLAN

**PART I
COVER SHEET**

LESSON TITLE: 2-Dimensional, 3-Dimensional, and Multi-Spectral Decoys

TRAINING METHOD: Lecture-Discussion

ORGANIZATIONAL PATTERN: Topical

REFERENCES: T.O. 11WA2-3-1, F-16 Aircraft Ground Decoy
T.O. 11WA2-6-1, Roadway Decoy - A/E28U-1
TM N00123-91-C-0057, Prototype F-15 3-D Inflatable Including Inflatable
Fuel Truck
Technical Report JCCD 94-1, Air Base Camouflage, Concealment, and
Deception Guide
A Guide to Bare Base Camouflage in a Desert Environment
Draft Report: Results from Experimentation and Shadow Creek Demo

AIDS AND HANDOUTS:

- Attachment 1: 2-dimensional decoys of fighter aircraft
- Attachment 2: An example of a Helicopter, Refueler, Missile
Batteries and Fighter aircraft as 3-D Multi-Spectral
Decoys
- Attachment 3: Smokey Sam (surface-to-air missals) Simulator
- Attachment 4: F-15 and R-9 Refueler Multi-Spectral Decoys

LESSON OBJECTIVE: Teach students the purpose, types, and general guidelines for decoy employment. The student must demonstrate mastery of at least four of the six samples of behavior below.

SAMPLES OF BEHAVIOR:

1. Identify the purpose of decoys.
2. Identify the three types of decoys.
3. Differentiate between the three types of decoys.
4. Identify the three designs for decoys.
5. Identify guidelines to properly employ decoys.
6. Identify areas to be considered for decoys.

STRATEGY: This lesson is designed to be taught to unit trainers responsible for training personnel in their units on decoy employment. Additionally, it is aimed toward any person who will be working the base CCD planning process. As new decoys are purchased by the USAF for employment at installations or deployment locations, new RTPs will be developed if necessary to cover the particular decoys.

LESSON OUTLINE:

MAIN POINT 1. PURPOSE OF DECOYS

- a. A CCD Principle And A CCD Measure
- b. Credible And Realistic
- c. The Numbers Game
- d. Types Of Decoys me

MAIN POINT 2. THREE TYPES OF DECOYS

- a. Decoy Targets
- b. Decoy Cues
- c. Distracters

MAIN POINT 3. USAF-AVAILABLE DECOYS

- a. Operating Surfaces
- b. Aircraft/Vehicle Decoy
- c. Building Decoys

MAIN POINT 4. GENERAL DECOY GUIDELINES

- a. General Guidance
- b. It's The Real Thing
- c. Runways
- d. Aircraft
- e. Roads
- f. Buildings
- g. Stockpiles
- h. Bladders
- i. Pipelines
- j. Defenses
- k. Simulate Damage
- l. Nighttime Operations

PART II
TEACHING PLAN
INTRODUCTION

ATTENTION:

What would happen if the three million-dollar building that houses the Wing Command Post was destroyed because it was not protected properly? How about a million dollar aircraft, or a strip of aircraft operating surface such as a taxiway? These should have been hardened against the attack in the first place, right? Not necessarily. Hardening and replacement are both extremely expensive measures. In fact, you may not have the time or resources necessary to complete either measure.

MOTIVATION:

Today you will learn of a relatively inexpensive way to protect your resources with a minimal amount of manpower and effort. We will cover what experts in the field consider, as the "new wave" of CCD measures - decoys.

OVERVIEW:

Today we will discuss:

1. Purpose of decoys
2. Three types of decoys
3. USAF - available decoys
4. General guidelines

TRANSITION:

First, let's discuss the purpose of decoys.

BODY**MAIN POINT 1.
PURPOSE****a. A CCD PRINCIPLE
AND A CCD
MEASURE**

The purpose of decoys is to ensure the survivability of our most precious resources such as aircraft, buildings, and operating surfaces.

In the lesson on the Four Basic Principles and Assumptions of CCD (RTP K3), we identified "decoy" as one of the four basic principles of CCD, along with hide, blend, and disguise. Aside from being a basic principle, it is also considered a CCD Measure, or CCDM.

1) AS A PRINCIPLE

A principle is a basic, essential quality in an element. The element being the overall base CCD program and to use decoy is a basic essential part of the program. As a principle, to decoy, is to fool the enemy into believing a false target is a real one.

2) AS A CCDM

A CCDM is a particular tool used to implement the principles of decoy. As a CCDM, an F-16 decoy, on a parking ramp becomes part of the principles of decoy.

**3) WHAT IS A
DECOY?**

The use of any imitation, in the sense of person, object, or phenomenon, intended to deceive adversary surveillance devices or mislead adversary evaluation.

**b. CREDIBLE AND
REALISTIC**

Decoys must be credible and realistic. They must present a similarity to real targets.

c. THE NUMBERS
GAME

Decoys enhance the numbers game when used as false targets. Decoys confuse and disorient an adversary. Decoy employment has distinct advantages for tactical survivability. For example, suppose an installation presents 10 targets to the enemy with five being real assets and 5 representing decoys. By using five decoys, the probability of hitting a real target would be reduced to one-half.

d. TYPES OF DECOYS

Decoys have been developed and tested in 2-dimensional, 3-dimensional, and multi-spectral designs.

1) 2-D

2-dimensional decoys provide shadows and silhouettes, such as F-15 and F-16 aircraft.

<p>INSTRUCTOR'S NOTE: Use Attachment 4 of Part IV as an example.</p>

2) 3-D AND
MULTISPECTRAL

The 3-D and multi-spectral decoys are real looking, generally life-size, fakes. Hot air balloons resembling tanks, helicopters, missile batteries, fighter aircraft, and refueling trucks are some of the most innovative and realistic designs.

3) MULTISPECTRAL

All decoys in current and future development are tested and expected to have a multi-spectral signature. They will be seen not only in the visual range, but also in the radar and thermal infrared ranges.

MAIN POINT 2. THREE TYPES OF DECOYS

a. DECOY TARGETS

Three types of decoys are used in CCD:

- decoy targets
- decoy cues
- distracters

Decoy targets are realistic imitations of targets. They must be located so the explosion of attacking munitions will have minor impact on other resources and operations.

1) FALSE TARGETS

Decoy targets, used as false targets, should represent aircraft types, surface-to-air missile (SAM) sites, or other high-value assets.

a) FALSE SUPPORT EQUIPMENT

Locating appropriate decoy support equipment, along with the target decoy, makes false targets more effective.

b) DECOYS EARLY IN FLIGHT PATH

Ideally, decoys should be placed along the flight path prior to the actual targets. This allows the initial fire to be drawn from the attackers.

c) REAL TARGETS AT REAR OF FLIGHT PATH

Real targets will be more survivable if placed at the rear end of the projected flight path.

d) PLAN SAFE
DISTANCE

Planners must also consider whether or not the enemy may use a string of bombs or bullets in the attack scenario. If so, stray munitions or rounds, leading straight from the decoy will create a threat to other resources and assets.

e) EXAMPLE OF
EFFECTIVE
DECOY
PLACEMENT

For example, a decoy of an F-16 positioned on a false operating surface away from the runway appears to look like a parking ramp from the air. Add an R-9 refueling vehicle decoy, an AGE starter cart decoy (a wood crate painted OD green), and a simulated fire extinguisher. You now have a target decoy worthy of a strike by any highly trained fighter pilot.

2) SIGNATURE
CHARACTER-
ISTICS

Each target has its own signature and its own set of characteristics that distinguish it from other objects.

a) PROMINENT
LOCATION

If the signature of false targets stands out from the background environment, the decoy is more likely to be attacked.

b) BELIEVABLE
LOCATION

Remember, when selecting the areas for decoys, the survivability of real targets is the key to setting out false target decoys. With this in mind, decoys must be positioned in believable target areas.

b. DECOY CUES

A cue is a feature, structure, or signal that enhances target detection away from the target area or alters the target acquisition process.

1) EXAMPLES OF CUES

Examples of cues include road intersections, towers, bodies of water, and other obvious features serving as important orientation cues that stand apart from the surrounding background.

2) CONCEAL REAL CUE

Concealment or camouflage of the real cue(s) and substitution of a decoy can prove to be very beneficial. Replicating such features can deny and disorient the adversary's observation and acquisition processes.

3) REPLICATE SOME CUES

A cue such as a large, highly visible tower placed in front of a high value asset could be replicated in front of several other low-value targets to confuse an attacker.

c. DISTRACTERS

Distracters are used to increase confusion, disorientation, or distraction of aircrews away from their intended target. Distracters are the opposite of hiding and blending. Distracters draw attention AWAY from critical targets. They are detectable decoys, however not fully identifiable. Let's look at several ways to distract an aircrew.

1) FLASHBRIGHT SIGNATURES

Flash bright signatures or signals within the field of view, but preferably off to the side of vision or field of view of the sensor image. The strategy is to draw the attention, even briefly, from a pilot's fixation on the target during the target search routine.

a) TIMING VERY IMPORTANT

Therefore, timing is very important. The rate at which the signal is sent, the exact time the signal occurs, and its duration along the attacker's profile is critical.

b) SMOKEY SAM

A great example of a distracter is a Smokey SAM rocket simulator. These small, unguided rockets produce the same bright white smoke plumes that pilots associate with the launch of portable Surface-to-air Missiles (SAMs), such as a Stinger missile.

<p>INSTRUCTORS NOTE: Use Attachment 3 of Part IV as an example of a distracter. This is a Smokey SAM, surface-to-air missile simulator.</p>

2) DISRUPTERS

Disruption is the second form of distraction. It is applied by physically placing confusing patterns over surfaces. For instance, an F-16 aircraft provides a distinctive shadow silhouette on a parking ramp on a typically sunny day. If we paint black patterns on the ramp that appear

3) SIMULATE DAMAGE

similar to the aircraft silhouette, the pilot will wonder if the pattern is real. By the time the pilot decides the painted shape is not a target, it may be too late to seek another target.

The third possible distraction is to simulate damage while maintaining operability.

This photograph is an example of craters painted on a runway. This technique makes the runway appear as though it has already been taken out of commission and need not be bombed again.

<p>INSTRUCTORS NOTE: Use Figures 5-12 and 6-22 from JCCD Tech Report 94-1 to demonstrate moulage damage.</p>

a) POST- ATTACK AERIAL RECON

Simulations such as this have to be very good. The aim is to fool post attack reconnaissance. The photographs of the area will be analyzed carefully while planning as opposed to the quick decision made by a fighter pilot at the last moment.

b) HISTORICAL PRECEDENCE

The use of simulated bomb craters and simulated bomb damage to facilities has proven successful in just about every war.

c) REALISM IS
KEY

An example would be a bomb impacting an aircraft on the parking ramp. When the bomb hits the aircraft, it explodes. A fraction of a second later, the aircraft fuel tanks and munitions loaded on it also explode. The secondary explosion is one of the attributes enemies look for when scoring a "kill." False fires with heavy smoke have also been successful, especially if the purpose is to simulate a secondary fire or explosion.

MAIN POINT 3.
USAF-AVAILABLE
DECOYS

Many decoys are available from the inventory. Other items can be developed with our own ingenuity. Let's go through these areas where decoys may be employed.

a. OPERATING
SURFACES

Decoys for operating surfaces such as roads, runways, taxiways, parking lots, and parking ramps are easy decoys to construct and have a good return for the investment.

1) VARIETY OF
MATERIALS

Surfaces can be developed using a variety of materials. Gravel, hard-packed soil, lime, paint, sheets of plastic, or False Operating Strip (FOS) are very effective in the 2-dimensional and 3-dimensional spectrums.

2) FOS IN CCD INVENTORY

The Air Force has FOS in the CCD inventory. FOS comes in sets of two, 25-foot by 1000-foot sections. When overlapped side-by-side, the sections simulate operating surfaces such as runways, taxiways parking pads, roadways, or any portion of said areas, up to 50 feet by 1000 feet long.

a) LIGHTWEIGHT MATERIAL

FOS is made of an ultra lightweight, woven, colored material that is rolled out and anchored down with stakes. This allows it to remain in place during high winds.

b) TWO PATTERNS

Each piece comes in two reversible patterns: aged concrete and asphalt surfaces.

c) 10-PERSON CREW

The FOS requires a 10-person crew: 1 truck driver, 2 people to pull it from the boxes, and 7 to anchor it.

3) 2-D, 3-D, MULTI- SPECTRAL

As stated earlier, there are many decoys that have been developed and tested in 2-dimensional, 3-dimensional, and multi-spectral designs.

INSTRUCTORS NOTE: Use Figure 6-15 from JCCD Tech Report 94-1 to show how realistic a 2-d decoy can appear. This is a screen with the aircraft painted on it. The people in the picture are walking up to it to see if it is real or not. Very believable.

b. AIRCRAFT/VEHICLE
DECOY

Two-dimensional silhouettes and screens with decoys painted on them have proved very realistic according to published results.

INSTRUCTORS NOTE: Use Figure 6-16 from JCCD Tech Report 94-1 to show the realism and fidelity of a 3-d decoy.

1) 3-DIMENSIONAL
F-16 AIRCRAFT
DECOY

PACAF has 3-dimensional F-16 aircraft decoys. The full-size replica has more than enough fidelity to the actual aircraft, to deceive hostile pilots into making visual attacks. The decoy is lightweight, quickly assembled and disassembled, compact to store, and can be towed.

a) ASSEMBLES IN
85 MINUTES

After initial training, an F-16 decoy can be assembled in about 85 minutes by a three-person team. It can be disassembled in about two hours. For proper placement, the decoy can be towed to its employment location by any standard military vehicle with the ability to tow 1500 lbs.

b) WINDS UP TO
35MPH

This decoy can also withstand winds up to 35 mph when tied down.

c) VERY
REALISTIC

In test after test, pilots considered 3-D decoys to be very realistic. When these decoys were bombed, the pilots considered them successful hits.

2) INFLATABLE HELICOPTERS

Decoy helicopters and their containers weigh less than 300 lbs. They are fully inflatable, providing a visual signature exactly the same as real helicopters. Also, they can be adapted to provide a heat source for detection by thermal infrared receivers. Once a pilot gains visual recognition, backed up by radar and thermal infrared signatures, the decoy is a guaranteed prime target.

3) PROTOTYPES OF F-15 AND R-9 REFUELER

Recently, the USAF tested, developed and purchased prototypes of F-15 aircraft and R-9 refueler vehicles. These decoys are also inflatable and provide multi-spectral signatures to attacking pilots.

INSTRUCTOR'S NOTE: Use Attachment 4 of Part IV as an example of a prototype.

a) DECEIVES THE BEST PILOTS

When placed among actual aircraft and support equipment, the decoys are realistic enough to deceive trained pilots who know decoys are being used in the target area.

INSTRUCTORS NOTE: Use Figure 8-9 from JCCD Tech Report 94-1 to demonstrate one of the many simple and inexpensive ways to decoy a large building.

c. BUILDING DECOYS

When designing decoys for buildings, realize that buildings are large objects and require large decoys. If the decoy is not simple, then the costs and manpower become excessive.

1) RECTANGULAR
SHAPE

Only the essentials, like the typical manmade rectangular shape, should be created. A large piece of dark rectangular material can be spread on the ground with plywood panels propped up for walls.

2) WALLS NOT FULL
HEIGHT

These buildings need not be full height. One-half to one-third of a real building's height is hard to determine from the air. It will still provide the necessary shadows.

3) WALLS NOT SOLID

Walls don't have to be solid. They can be constructed of netting or any material to create the correct shadowing effect.

4) ADD IN RADAR
CORNER

When a radar corner reflector is placed on one corner of the decoy from the approach direction, the reflector will simulate a radar return.

INSTRUCTORS NOTE: Other examples of how to decoy buildings can be found in paragraphs 8.34 and 8.35 of JCCD Tech Report 94-1.

**MAIN POINT 4.
GENERAL DECOY
GUIDELINES**

Let's look at some general and specific guidelines for decoys, where to place, how to build and maintain, and how to add realism. Realize a decoy can simulate almost any target. Consider this partial list:

- Aircraft parking stands, roads, aprons, taxiways, and runways
- Aircraft
- Revetments
- Aircraft shelters
- Generators and power cables and pipes
- Radars
- Fuel facilities
- Munitions storage bunkers
- Airbase lights for night decoy sites
- Bombed damaged areas and craters
- Air defense sites

**a. GENERAL
GUIDANCE**

To be successful, the decoy environment must have activity and associated features of real operations going on near the actual target.

1) LOCATION

Decoys should be located in logical positions, but away from the actual targets. This is so fire directed at the decoy will not damage the actual assets.

**a) REPLACE
ACTUAL WITH
DECOY**

Any real items intelligence indicates being spotted by the enemy, should be moved and replaced by decoys.

b) NO
COMPARISON

Also, the decoy and the real item should be far enough apart so comparison, by the attacker or observer, cannot distinguish between the two.

c) ORIENTATION

Decoy facilities should be oriented with respect to landmarks in the same manner as the real objects. For instance, if the building you are trying to decoy is parallel with a mountain ridge, don't build the decoy perpendicular to the ridge.

d) ON APPROACH

As we stated earlier, decoys are optimally sited on the enemy's avenue of approach so the attacker sees the decoys before the real targets.

2) WHAT THE EYE
SEES

Decoys do not have to be built to scale or accuracy. What a pilot sees is only at a glimpse, a silhouette, a shadow, etc. Remember how brief his focus time is.

a) DAMAGED
ITEMS

Damaged items no longer usable in original state may be cosmetically repaired and used as decoys or disguised as decoys for other equipment.

b) SMALLER
SCALE

When the area available for a decoy is limited or when lack of material, labor, or time make full-scale representation impossible, a smaller scale may be successful.

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| c) ¾ SCALE | All elements of a decoy must be to the same scale, except for height. Since height is difficult to determine from the air, it may be reduced in scale without losing realism. |
| d) OMIT SECTIONS OF DECOY | Save time and materials by omitting sections of a decoy hidden by the object's shadow. For example, omit sheathing from the side of a decoy, which is constantly in shadow. |
| b. IT'S THE REAL THING | Decoys should be camouflaged like real objects. However, their detection should appear accidental due to defects in camouflage, rather than intentional. This can be accomplished by showing only part of the decoy's form, using incomplete shadow concealment, or using improper texture and colors. |
| 1) CONDUCT AERIAL SURVEY | After erecting the decoy, conducting an aerial survey, is the best means to predict success. |
| 2) INCLUDE SIGNATURE CUES | Constructed decoys should include as many signature cues of the real object as possible to add realism. Examples: a glint from an aircraft canopy, natural shadows, and personnel movement in the area. |

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| 3) "LIVED IN"
APPEARANCE | Decoys should have a "lived in" appearance and show obvious signs of operations such as, fuel stains, jet exhaust marks, human activity, traffic, trucks, litter, and usual ground support equipment. |
| 4) REORIENT AND
RELOCATE | To appear active, decoys should be reoriented or relocated from time to time, to simulate the operation of the real targets. |
| 5) DEFEND DECOYS | If we defend real items, we should also defend decoys. Even if we only put out fake guards, something is better than nothing. |
| 6) REPLACE AFTER
STRIKE | Once decoys are attacked and the enemy scores hits, the decoys can be replaced by real assets. |
| c. RUNWAYS | One of the most important items to decoy is the runway, because it is the most likely to be attacked. Constructing a decoy runway is an enormous task. Its size alone requires a vast quantity of materials and labor. |
| 1) ORIENTATION CUE | The runway is an orientation cue used by an attackers to find other targets. |
| a) CONFUSE
ATTACKERS | A decoy runway will serve to dilute an attack and reduce damage to the real runway. |

b) MEANS OF ID	Identify decoy runways to preclude landing attempts by friendly aircraft. An ideal identification marker is one that only friendly forces would recognize.
2) CONSTRUCTION	A decoy runway can be achieved by simply grading the terrain to appear like an actual runway from the air.
a) MATERIALS	Materials such as crushed stone, local gravel, liquid tar, inexpensive paints or stains applied to the gravel or graded soil will produce a realistic appearance.
b) SHALLOW CUT TRENCH	At the edge of the runway, cut a shallow trench to emphasize the runway outline.
d. AIRCRAFT	Decoy aircraft will certainly deceive the enemy as to the number and type of aircraft actually present.
1) INDICATION	A decoy can consist of only an indication of an aircraft. False signs simulate activity in an area, such as a decoy runway.
a) TIRE TRACKS	Tire tracks leading to an empty camouflage net or shadow revetment, for example, will indicate the presence of an actual aircraft.
b) AIRCRAFT PARTS	A piece of damaged aircraft protruding from a camouflage net is another false indicator.

2) LOCATION

Simulated aircraft can be placed in revetments, under camouflage nets, and in the open on the decoy aprons, taxiways, and runways.

a) CONFORM TO NORMAL BASE PRACTICES

The placement of decoy aircraft and the activity surrounding them must conform to the normal base practices so that their presence and surroundings are convincing.

b) MOVE DECOY

We should put at the top of our priority list to move around decoy aircraft from day to day, and show telltale signs of related activities, such as fuel trucks beside them.

3) CONSTRUCTION

Construct decoys as simply as possible using light, standard, and inexpensive materials. Portions of decoy aircraft may be used to indicate partially camouflaged aircraft.

a) SIMULATE 3-D EFFECT

For instance, it is not always necessary to construct a full 3-D cross section decoy aircraft. The third dimension of the fuselage may be alluded to by a simple horizontal plane outline representing a vertical view and a perpendicular plane outline to represent the horizontal view of the fuselage.

b) SALVAGE

Decoy aircraft also may be constructed from salvage material. Real damaged aircraft mixed in with decoy aircraft adds reality.

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| 4) AIRCRAFT
SHELTERS | Decoy aircraft shelters, generators, and other rectangular shaped forms may be constructed of rough framing wood or pipe covered with cloth or building paper. |
| 5) REVETMENTS | Revetments may be painted on the ground or simulated by mounds of earth. Actual revetment sections also may be used or may be constructed from empty supply crates stacked to resemble revetment walls. Erect a camouflage net assembly over the revetments for additional realism. |
| e. ROADS | When constructing decoy roads be sure to continue in a logical destination, such as toward a decoy position or a main road. Approach roads, parking stands, aprons, and taxiways can be highlighted also. |
| f. BUILDINGS | Here are some more suggestions for simulating buildings. As mentioned earlier, they do not have to be full-size, it's the shadow that counts. |
| 1) FIELD MADE | Local stones or field-made mud bricks can be used to form walls for structures. Doors and windows should be painted on, and an attempt should be made at camouflage to further complete the decoy. |
| 2) STACKED
SUPPLIES | In built-up areas, actual supplies can be stacked to resemble native buildings or extensions of buildings. The purpose is to provide false cues, not targets. After all, we don't want to sacrifice our supplies. |

g. STOCKPILES

Obviously, we need to protect our supplies. If we let the enemy think we've stored them in the open, perhaps he won't look so hard for the real storage areas.

1) MUNITIONS
STOCKPILE YARD

Discarded crates and other items can be stacked and placed to resemble stockpiles, simulating outside storage areas. Be sure to include other cues like fences, berms, or basic revetments.

2) STOCKPILES

Placing salvage materials such as empty boxes or oil drums in neat piles by a road will give the appearance of a stockpile.

3) FALSE SHADOWS

False shadows can sometimes be used to simulate stacked supplies.

h. BLADDERS

Fuel and water bladders are difficult to simulate because of their unusual shape. Soil can be shaped and bermed to resemble a bladder and conspicuously colored to indicate the bladder outline.

i. PIPELINES

Decoy pipelines are simulated by laying unconnected pipes end to end or trenching swallow ditches.

j. DEFENSES

Normal defenses around an airbase should also be decoyed. Decoy air defense emplacements should be located between and among real air defense units. Partially camouflaged abandoned air defense positions can also be used as decoys.

k. SIMULATE DAMAGE

Enemy aircraft are not likely to attack what appears to be already damaged. Simulated damage induces the enemy to stop or lessen the number and force of strikes on what is believed to be a crippled installation.

1) COVER, THEN
REVAIL

Holes and craters may be painted on roofs and runways. Damage from fires and bombs can be prepared and then covered by tarps so no evidence is visible from the air. Once the attack is over, remove the tarps to reveal your ruse.

2) STACK, THEN
SCATTER

Debris may be stacked in advance. Once a few bombs have been dropped, scatter the debris to simulate destroyed walls, roofs, and equipment.

3) SPEED IS
ESSENTIAL

Speed is essential in this kind of deception. Further damage may be simulated with fires and smoke pots.

l. NIGHTTIME
OPERATIONS

Poor light discipline and blackout combined with decoys can really mislead an attacker.

1) NIGHT DECOYS

Night decoys can be used to simulate inefficiently concealed airbases near well-hidden actual airbases.

a) TWO MILES AWAY

If the real airbase is located near easily identified landmarks, then the night decoys should not be placed more than a couple of miles away.

b) FIVE TO EIGHT MILES AWAY

If the base is not located near easily identified terrain, the decoy can then be set up 5 to 8 miles away.

2) LIGHT DISCIPLINE

As the enemy aircraft approaches, the lights should be dimmed to indicate a poor attempt at blackout. They may even be turned off at the last minute.

a) POOR BLACKOUT

Lights from decoy operations structures can be varied in number and intensity to simulate various degrees of faulty blackout discipline.

b) LANDING LIGHTS ON EARLY

When using decoy landing lights, be sure they are turned on prior to the enemy aircraft seeing them. Early warning and good intelligence data are obvious necessities in order to accomplish this.

CONCLUSION

SUMMARY:

Today we discussed:

- The purpose of decoys.
- The three types of decoys.
- Decoys available to the USAF.
- General guidelines to follow when attempting to decoy.

REMOTIVATION:

Many decoys are currently available as kits, many need to be constructed from your own ingenuity, and many others are currently undergoing research and development. You are now part of the Air Force elite team of camoufleurs.

CLOSURE:

This concludes this lesson on decoys.

TRANSITION:

(Develop locally to transition to the next topic.)

PART III
EVALUATION

STUDENT PERFORMANCE STANDARDS

TEST ITEMS

1. LESSON OBJECTIVE: Identify the purpose of decoys.

QUESTION: (Multiple Choice)

Which of the following is the purpose of decoys?

- a. Be invisible to enemy threat sensors.
- b. Provide the enemy with fewer targets.
- c. Ensure survivability of our resources.
- d. Increase the chance of being recognized by threat sensors.

Key: c. Ensure survivability of our resources

REFERENCE: Main Point 1

2. LESSON OBJECTIVE: Identify the three types of decoys.

QUESTION: (Multiple Choice)

What are the three types of decoys?

- a. Steel-frame decoy, target decoy, and ultra lightweight decoy
- b. Decoy cues, fiberglass decoy, and steel-frame decoy
- c. Distracters, munitions absorbers, and ultra lightweight decoy
- d. Decoy cues, distracters, and target decoy

Key: d. Decoy cues, distracters, and target decoy

REFERENCE: Main Point 2

3. LESSON OBJECTIVE: Differentiate between the three types of decoys.

QUESTION: (Multiple Choice)

Which of the following is a TRUE statement?

- a. Distracters simulate a feature, structure, or signal that enhances target detection; decoy cues simulate a feature, structure, or signal that enhances target detection
- b. Target decoys simulate a feature, structure, or signal that enhances target detection; decoy cues are very detectable and flash bright signatures
- c. Distracters are realistic imitations of real targets; decoy cues simulate a feature, structure, or signal that enhances target detection
- d. Target decoys are realistic imitations of real targets; distracters are very detectable and flash bright signatures

Key: d. Target decoys are realistic imitations of real targets; distracters are very detectable and flash bright signatures

REFERENCE: Main Point 2

4. LESSON OBJECTIVE: Identify the three designs for decoys.

QUESTION: (Multiple Choice)

Which of the following are the three designs for decoys?

- a. Multi-faceted, 3-dimensional, multi-spectral.
- b. 3-dimensional, multi-spectral, ultra lightweight.
- c. Multi-spectral, 2-dimensional, 3-dimensional.
- d. Multi-faceted, 2-dimensional, 3-dimensional.

Key: c. Multi-spectral, 2-dimensional, 3-dimensional

REFERENCE: Main Point 3

5. LESSON OBJECTIVE: Identify guidelines to properly employ decoys.

QUESTION: (Multiple Choice)

What is the most important method of determining whether or not your decoy efforts have been successful?

- a. Post-attack assessment
- b. Ground surveys
- c. Aerial surveys
- d. Air traffic observations

Key: c. Aerial surveys

REFERENCE: Main Point 4

6. LESSON OBJECTIVE: Identify areas to be considered for decoys.

QUESTION: (Multiple Choice)

Which of the following are the three most important items to be considered for decoy?

- a. Aircraft, finance centers, and parking ramps.
- b. Runway, aircraft shelters, and the base dining facilities
- c. Personnel shelters, air traffic control tower, and base CBPO
- d. Aircraft, aircraft shelters, and runway

Key: d

REFERENCE: Main Point 4

PART IV
RELATED MATERIALS

Attachment 1: 2-dimensional decoys of fighter aircraft

Attachment 2: An example of a Helicopter, Refueler, Missile Batteries
and Fighter aircraft as 3-D Multi-Spectral Decoys

Attachment 3: Smokey Sam (surface-to-air missals) Simulator

Attachment 4: F-15 and R-9 Refueled Multi-Spectral Decoys



ATTACHMENT 1: 2-DIMENSIONAL DECOYS OF FIGHTER AIRCRAFT



ATTACHMENT 2: AN EXAMPLE OF A HELICOPTER, REFUELER, MISSILE BATTERIES AND FIGHTER AIRCRAFT AS 3-D MULTISPECTRAL DECOYS



ATTACHMENT 3: SMOKEY SAM (SURFACE-TO-AIR MISSILES) SIMULATOR



ATTACHMENT 4: F115 AND R-9 REFUEULER MULTISPECTRAL DECOYS

TRAINING PACKAGE COMMENT REPORT

RTP # _____

RTP DATE: _____

For an *immediate response* to your questions concerning subject matter in this Readiness Training Package (RTP), contact the Office of Primary Responsibility (OPR) TSgt Ron Childs of the Contingency Training Section at DSN 523-6458 between 0700-1600 (CT), Monday through Friday. Otherwise, write, fax, or E-mail the OPR to make comments, suggestions, or point out technical errors in the areas of: references, body information, performance standards, test questions, and attachments.

NOTE: Do not use the Suggestion Program to submit corrections for printing or typographical errors.

Comments: _____

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