BROWARD SHERIFF'S OFFICE

TACTICAL FLIGHT OFFICER TRAINING MANUAL

Congratulations on your selection as a Broward Sheriff's Office Tactical Flight Officer (TFO).

This training manual has been developed to ensure that all TFO trainees receive the same level of training and performance evaluation. It outlines what skills the trainee will be required to demonstrate. This manual will serve as a valuable tool as the trainee and Aviation Unit personnel work toward successful completion of the TFO training program.

Aviation Unit personnel should establish a friendly, open and professional rapport with TFO candidates. Development and learning come through effective communication, and the rapport developed between the candidates and Aviation Unit personnel is paramount to this communication.

Aviation Unit personnel should convey a positive attitude regarding the unit itself and the candidate's participation in it. It is particularly important for Aviation Unit personnel involved in training to maintain a positive and objective attitude toward candidates. The goal of the training program is to develop a viable and well-trained TFO, not to simply get the candidate through the training program in the least amount of time.

Sufficient flexibility has been designed into the program so the individual needs of the candidate and the overall needs of the Broward Sheriff's Office and the Aviation Unit can be met. It is expected that the candidates have the necessary qualities to become effective TFOs and will, with the proper training, be successful. The responsibility of Aviation Unit personnel is to provide the most conducive environment for the candidate to succeed.

The new TFO trainee and Aviation Unit personnel should understand that the effectiveness, image, and future of the Aviation Unit, as well as the Broward Sheriff's Office as a whole, are substantially determined by the quality of its personnel.

The TFO training program is designed to instill the skills and abilities needed for TFO trainees to become operationally effective. To be successful, trainees must consistently demonstrate the ability to operate in a stressful environment, enhance officer safety and Aviation Unit safety, and show potential for growth. The training program is challenging, but is designed to help the trainee succeed.

ACKOWLEDGEMENTS

The content of this TFO training manual was created with input and assistance from members of airborne law enforcement units throughout the United States, from training provided by the Airborne Public Safety Association, and from the in-house knowledge and experience of Broward Sheriff's Office personnel.

In addition to all of the current airborne law enforcement unit members throughout the U.S. that assisted, the Broward Sheriff's Office would like to specifically thank Jack Schonely (retired LAPD pilot/TFO) and Kevin Means (retired San Diego PD pilot/TFO) for their expert instruction and published works which were instrumental in the creation of this TFO training manual.

AVIATION UNIT GUIDELINES

ACCEPTABLE:
The TFO understands, supports, and complies with the Sheriff Policy Manual, Aviation Unit SOP, and TFO Training Manual, as well as unit practices and procedures. Additionally, the TFO displays a good working knowledge of, and regular compliance with, proper safety practices.

NEEDS IMPROVEMENT:
The TFO is unfamiliar with the Sheriff Policy Manual, Aviation Unit SOP, and TFO Training Manual, as well as unit practices and procedures. The TFO behaves in a manner contrary to these guidelines. Such behavior results from a lack of knowledge, exposure or experience with appropriate procedures, and is not intentional disobedience to published policies and procedures.

UNACCEPTABLE:
The TFO willfully fails to comply with the Sheriff Policy Manual, Aviation Unit SOP, and TFO Training Manual, as well as unit practices and procedures. Such behavior stems from an indifference to published policies and procedures or an intentional disregard for such policies and procedures.

LEGAL CONSIDERATIONS / CASE LAW

ACCEPTABLE:

The TFO understands that most aerial suspect searches of private property conducted by the Aviation Unit are conducted under exigent circumstances. The TFO can explain plain view doctrine and how it applies to aerial observations. The TFO can explain Florida v. Riley which established case law for plain view from aircraft. The TFO can explain the search warrant requirement for a FLIR scan of a residential structure for a marijuana grow house investigation as established in Kyllo v. United States. The TFO understands that the use of magnification devices from the air (FLIR or binoculars) has not been addressed in previous plain view doctrine court decisions.

NEEDS IMPROVEMENT:

The TFO knows it is legal to conduct FLIR searches on private property for fleeing suspects but is unable to explain that it falls under the exigent circumstances exception. The TFO knows a search warrant is required to conduct a FLIR scan of a residential structure for a marijuana grow house investigation but is unable to cite Kyllo v. United States. The TFO does not know what altitude was previously cited by the court as being reasonable for a plain view naked eye search of a private property (400' AGL).

UNACCEPTABLE:

The TFO cannot explain exigent circumstances. The TFO cannot explain the plain view doctrine.

TASKS:

1. The TFO understands that most aerial searches of private property conducted by the Aviation Unit are under exigent circumstances
2. The TFO can explain the plain view doctrine and how it applies to aerial observations
3. The TFO can explain Florida v. Riley where, based on a tip, a deputy observed marijuana plants inside a greenhouse on private property from 400' AGL with the naked eye and the court determined that it met the plan view doctrine
4. The TFO can explain the search warrant requirement for a FLIR scan of a residential structure for a marijuana grow house investigation as established in Kyllo v. United States.
5. The TFO knows that all search warrant FLIR scans will be conducted by a TFO who is a Certified Airborne Thermographer

ADMINISTRATIVE BEGINNING-OF-SHIFT PROCEDURES

ACCEPTABLE:
The TFO thoroughly follows beginning-of-shift procedures and efficiently handles administrative tasks, thus enhancing the overall efficiency of the unit.

NEEDS IMPROVEMENT:
The TFO fails to plan ahead in conducting beginning-of-shift administrative tasks, causing the unit's efficiency to be compromised. The TFO is occasionally unprepared for work or fails to perform a specific beginning-of-shift administrative task.

UNACCEPTABLE:
The TFO repeatedly demonstrates the inability to conduct pre-flight briefings in a logical, articulate manner. The TFO consistently displays an inability to prepare for flight in a timely manner. The TFO fails to perform, or displays an indifference to, beginning-of-shift procedures.

TASKS
1. Knows the codes and procedures for entering and securing the BSO hangar
2. Knows the location of hangar light controls and electrical circuit breakers
3. Knows how to operate the hangar doors, knows the location of the ground power equipment and confirms it is charged, checks the aircraft tug for fuel quantity
4. Is able to log into P1 CAD, OSSI, and Digital AirWare
5. Knows the location of the daily flight schedules, daily aircrew schedules, roll call briefing book and reviews Digital AirWare for any aircraft and tactical equipment squawks
6. Checks Outlook for any time-sensitive emails
7. Reviews the Aviation Outlook Calendar
8. Knows the location of commonly used forms (passenger briefing form & hold harmless agreement)
9. Performs a hangar walk-around, foreign object debris and foreign object damage (FOD) walk, & inspects the fire extinguishers
10. Utilizes the "Beginning of Shift Checklist" as either a to-do list or as a confirmation checklist

JUDGEMENT AND INITIATIVE

ACCEPTABLE:

The TFO exhibits sound judgment in all matters relating to the safety of Aviation Unit personnel and the preservation and care of unit equipment. The TFO demonstrates sound judgment through careful consideration and assessment of known risk factors. The TFO displays an understanding of the capabilities of the Aviation Unit. The TFO makes sound decisions based on available information and experience. He or she anticipates problems and takes appropriate action to avoid or eliminate the problem. The TFO seeks ways to support ground units during routine and critical incidents and strives to improve the unit's effectiveness, efficiency and reputation.

NEEDS IMPROVEMENT:

The TFO is generally alert to situations, however, is sometimes slow to make a decision. Occasionally, the TFO fails to address an unsatisfactory situation, thereby affecting other unit personnel. The TFO misses an opportunity to improve support to ground units.

UNACCEPTABLE:

The TFO fails to recognize obvious hazardous conditions or recognizes such conditions but fails to address them. The TFO displays a conscious indifference to the proper care of unit equipment. The TFO fails to incorporate essential, relevant information into decision-making. The TFO does not seek out new tactics or technology that could improve the effectiveness or efficiency of the Aviation Unit. Through poor judgment or inaction, the TFO hampers the effectiveness of unit personnel in accomplishing their mission.

CREW COORDINATION / COMMUNICATION SKILLS

ACCEPTABLE:
The TFO clearly demonstrates the ability to perform the required communication skills under routine and stressful situations. The TFO is able to listen and communicate and coordinate effectively with the pilot, dispatch, and ground units during routine and critical incidents. The TFOs radio and intercom transmissions are clear, calm, concise, & timely. The TFO always acknowledges a request or question from the pilot or any additional crew member (TFO trainer).

NEEDS IMPROVEMENT:
The TFO is able to communicate with the pilot, dispatch, and ground units. However, on occasion, the TFO fails to monitor the appropriate dispatch channel or provide clear, calm, concise, and/or timely information. The TFO fails to effectively communicate the need for the pilot to adjust their flight path in order to keep a target or point of interest in view. The TFO occasionally fails to acknowledge a request or question from the pilot or additional crew member. The TFO is occasionally not aware that the pilot is transmitting on the aviation radio and attempts to talk to the pilot.

UNACCEPTABLE:
The TFO repeatedly fails to communicate crucial information to the pilot, dispatch, and ground units. The TFO is unaware of available information, improperly interprets information, or routinely provides poor direction or information to others. The TFOs radio transmissions and/or intercom transmissions are unreadable due to mumbling, speaking too softly, or improper positioning of microphone. The TFO fails to request the pilot to adjust their orbit as needed for the mission. The TFO routinely ignores requests or questions from the pilot or additional crew member. The TFO is routinely unaware that the pilot is transmitting on the aviation radio and attempts to talk to the pilot.

TASKS:
1. Demonstrates a clear understanding of the TFO's role in the safe, effective operation of the aircraft
2. Is able to effectively point out air traffic, birds, towers, or other hazards either verbally or with hand signals
3. The TFO is able to interpret the aircraft's Traffic Collision Avoidance System (TCAS) and visually locate any nearby aircraft and point the traffic out to the pilot, as needed.
4. Effectively communicates with the PIC and ground units to coordinate missions, with an emphasis on:
    a. Timely exchange of important information
    b. Short concise exchange of pertinent information
    c. Remaining calm on the radio
    d. Effective coordination with units on multiple frequencies during same incident
5. Acknowledges all requests or questions from the pilot or any other crew member (TFO trainer)

6. Recognizes when the pilot is transmitting on the aviation radio and refrains from attempting to talk to the pilot unless it is critical information
7. Takes effective notes of times, locations, post-flight to-do lists, or debrief topics as needed

AIRCRAFT FUELING OPERATIONS

ACCEPTABLE:
The TFO is able to call the Banyan FBO and request the proper amount of fuel. The TFO knows the proper fueling procedures of the Banyan FBO and occasionally supervises/inspects Banyan's refueling to confirm all safety procedures are being adhered to.

NEEDS IMPROVEMENT:
The TFO can call the Banyan FBO to request fuel but is not fully aware of each step in the refueling process.

UNACCEPTABLE:
The TFO does not know how to request fuel from the Banyan FBO or forgets to call. TFO does not routinely inspect the refueling process. The TFO is distracted during a refueling inspection.

TASKS:
1. The TFO is able to call the Banyan FBO and request the proper amount of fuel (as instructed by the pilot) for the proper aircraft
2. The TFO can supervise the refueling and confirm all safety procedures are being adhered to
3. The TFO ensures the refueling truck does not make contact with the aircraft
4. The TFO can confirm the correct amount of fuel was loaded (from either the gauge on the refueling truck and/or the aircraft fuel gauge) and that the locking fuel cap is secure.
5. During hot refueling the TFO exits the aircraft and stands fireguard, confirming the refueling truck remains outside of the rotor disc and that all personnel stay clear of the tail rotor

AIRCRAFT GROUND HANDLING

ACCEPTABLE:
The TFO has knowledge of use and care for the aircraft tug and can safely operate the tug. The TFO can attach the tug to the aircraft dolly and install/remove dolly chalks. The TFO always confirms hangar doors are open and rotor walks the aircraft in and out of the hangar with the pilot or maintenance personnel driving the tug.

NEEDS IMPROVEMENT:
The TFO can operate the tug but needs reminding to install/remove dolly chalks or rotor walk the aircraft in and out of the hangar.

UNACCEPTABLE:
The TFO cannot operate the tug. The TFO operates the tug in a dangerous or unsafe manner that could cause injury or damage equipment.

TASKS:
1. The TFO ensures the tug is fueled and calls Banyan FBO to refuel as needed (diesel)
2. The TFO has knowledge of use and care for the aircraft tug and can safely operate it
3. The TFO can attach the tug to the aircraft dolly and install/remove dolly chalks
4. The TFO ensures proper clearance into and out of the hangar by rotor walking
5. The TFO ensures the tug is properly parked and shut off after use (not blocking any aircraft or other hangar equipment)

AIRCRAFT EXTERNAL POWER UNIT

ACCEPTABLE:

The TFO demonstrates a knowledge and understanding of the external power unit (EPU) and can connect and disconnect the EPU from the aircraft. The TFO can identify times when an assisted start may be necessary. The TFO maintains the external power unit in a charged and ready configuration.

NEEDS IMPROVEMENT:

The TFO requires assistance in utilizing the external power unit.

UNACCEPTABLE:

The TFO fails to maintain the external power unit and does not know how to attach it to the aircraft.

TASKS:

1. The TFO maintains the external power unit in a charged and ready configuration
2. The TFO can identify when an assisted start is necessary
3. The TFO can properly connect and disconnect the external power unit from the aircraft and has developed signals with the pilot to do so
4. If using external power for any reason (tactical equipment training, software updates, demonstration, etc.), the TFO knows how to turn the battery on (BAT-EXT switch - on, DIRECT BATT switch - off) and confirm that the BATT light is illuminated (internal battery offline) on the Caution/Warning Panel (CWP) when connected to external power
5. The TFO confirms the aircraft is on external power by monitoring the voltage (>24 volts) on the Vehicle and Engine Multifunction Display (VEMD)
6. The TFO stores the external power unit in a proper location and makes sure it is charging

AIRCRAFT PRE-FLIGHT

ACCEPTABLE:

The TFO demonstrates a thorough knowledge of aircraft preparation and the pre-flight procedures required for patrol operations. The TFO consistently performs all TFO related pre-flight preparations and procedures, including the installation of required equipment, and ensures that all required equipment is in good working order. TFO utilizes the TFO Pre-flight Checklist as either a to-do list or as a confirmation checklist.

IMPROVEMENT NEEDED:

The TFO displays a significant understanding of aircraft preparation and most pre-flight procedures. The TFO, on occasion, fails to properly pre-flight, install, check or equip the aircraft with required equipment. The TFO does not utilize the TFO Pre-flight Checklist.

UNACEPTABLE:

The TFO repeatedly fails to demonstrate an understanding or retention of aircraft pre-flight preparation or procedures. The TFO improperly installs, removes or equips the aircraft with the required operational equipment. The TFO repeatedly fails to ensure that required equipment is in good working order. The TFO fails to follow pre-flight procedures. The TFO does not visually inspect the aircraft each time they approach it, even if a pre-flight was previously performed.

TASKS

1. Confirms all TFO/pilot checklists are in the aircraft and utilizes them accordingly
2. Confirms proper installation of the FLIR gimbal and FLIR Universal Hand Control Unit (UHCU)
3. Confirms the installation of the searchlight and searchlight hand controller
4. Cleans aircraft windscreen/windows as needed (see maintenance section of this manual)
5. Cleans and inspects FLIR lenses and checks the desiccant window (moisture indicator)
6. Requests maintenance to change the FLIR desiccant (moisture indicator) when applicable
7. Cleans and inspects searchlight lenses and hard points
8. Ensures all individual tactical and safety gear is onboard aircraft and functioning before takeoff
9. Ensures all aircraft headsets are working and ICS drop boxes are accounted for
10. Ensures seats are installed and/or configured for the mission
11. Required gear includes:
    a. Flight suit, helmet, gloves (accessible), boots, knee board
    b. Flotation gear, including holstered handgun, handcuffs or flex cuffs onboard, flashlight, and portable radio
12. Optional gear to be considered
    a. NVGs (if flight will be after sunset)
    b. Multi-tool
    c. Personal medical equipment
    d. Knife

13. Ensures all tactical and support equipment is present in the aircraft prior to takeoff
14. Required equipment includes:
    a. SAL 7000 external radio & phone cable adapters
    b. Aircraft passenger iPad with power cable
    c. PA system phone/iPad cable with Apple lightning adapter as necessary
    d. FLIR UHCU
    e. Searchlight controller
    f. Passenger ICS drop boxes and headsets
    g. Flotation devices (crew and passenger) (as required)
    h. Passenger motion sickness bag
    i. 2 DVR thumb drives with available memory
    j. Land rescue drop bag
    k. Water rescue throw bag
    l. Aircraft first-aid kit

WEATHER AND FLIGHT PLANNING

ACCEPTABLE:

Although obtaining a weather briefing and flight planning is the responsibility of the pilot in command (PIC), the TFO can collect and analyze all weather relevant to flight operations and explain the weather's impact on a particular mission. The TFO knows the Aviation Unit policy regarding required weather minimums and how to obtain the current or forecast weather prior to flight. The TFO is familiar with Notices to Airmen (NOTAMS) and how they affect a particular flight.

NEEDS IMPROVEMENT:

Although obtaining a weather briefing and flight planning is the responsibility of the pilot in command (PIC), the TFO requires minimal assistance to collect relevant weather information and has some difficulty explaining how weather can affect a particular mission set. The TFO has to be reminded about AOD policy regarding weather minimums. The TFO needs to be reminded about Notices to Airmen (NOTAMS) and how they relate to flight operations.

UNACCEPTABLE:

Although obtaining a weather briefing and flight planning is the responsibility of the pilot in command (PIC), the TFO cannot locate relevant weather information regarding flight operations. The TFO is not familiar with AOD policy regarding weather and consistently makes poor decisions regarding aviation weather decision making. The TFO is unfamiliar with Notices to Airmen (NOTAMS)

TASKS:

1. The TFO can locate online aviation weather resources related to a particular flight
2. The TFO can discuss Visual vs. Instrument Flight Rules and knows the weather minimums as they relate to the mission, aircraft, and aircrew
3. The TFO can explain weather phenomena such as ceilings, visibility, forecasts, wind direction, wind speeds, precipitation, temperature, barometric pressure, low pressure, high pressure, and convective weather systems
4. The TFO can locate Notices to Airmen (NOTAMS), explain the different types, and explain how they might affect a given mission set

PASSENGER BRIEFING

ACCEPTABLE:
The TFO clearly and concisely briefs the passengers so that all passengers understand the briefing. The TFO has knowledge of the Passenger Briefing Form and provides a copy to all passengers. The TFO ensures that civilian passengers or off-duty law enforcement passengers have signed the Aviation Hold-Harmless / Indemnification Agreement.

NEEDS IMPROVEMENT:
The TFO conducts the briefing but fails to cover pertinent information.

UNACCEPTABLE:
The TFO fails to conduct a passenger briefing, does not provide a Passenger Briefing Form and/or forgets to have the passenger sign the Aviation Hold-Harmless / Indemnification Agreement. The TFO is unaware of safety procedures and exhibits a lack of knowledge of emergency procedures.

TASKS:
1. Have civilian and off-duty law enforcement passengers sign the Aviation Hold-Harmless / Indemnification Agreement
2. Provide passenger with a copy of the Passenger Briefing Form
3. Location and use of safety and survival equipment to include seat belts
4. Location and use of exits and emergency doors
5. Safe entry and exit of aircraft
6. Use of headsets and radio
7. In flight emergency procedures
8. Location and operation of fire extinguisher
9. Any safety procedures specific to the mission
10. No smoking
11. Actions in case of a crash or emergency landing
12. Can explain water egress procedures, including the use of a reference point, seatbelt and helmet/headset cord consideration
13. Sterile cockpit considerations during take-off & landing
14. Potential for ICS isolation of crew and how to get crew's attention if ICS isolated
15. Location of air-sickness bags
16. Instruct passenger on the "see, hear, or smell anything unusual" notification
17. Instruct passenger on use of the passenger iPad to view a live feed of the FLIR, mapping system, or aircraft data (Churchill Pilot App)

CREW MISSION BRIEFING

ACCEPTABLE:
The TFO demonstrates a thorough knowledge of the mission and clearly and concisely communicates the mission to all crew. All crewmembers are familiar with their roles and responsibilities and the mission is understood at each level by all crewmembers. When the mission is a call for service, the TFO writes down all of the required information.

NEEDS IMPROVEMENT:
The TFO is able to communicate the mission but some information is left out. The TFO does not always write down all of the required information.

UNACCEPTABLE:
The TFO fails to conduct the briefing and/or misses key pertinent information or relays false information.

TASKS:
1. When receiving a call for service, the TFO writes down all of the required information including location, channel, any suspect or suspect vehicle descriptions, and reference for the call
2. The TFO can clearly state the mission (TFO training, TFO flight training, SWAT deployment, equipment testing, etc.)
3. The TFO can explain the duties of each crewmember during each phase of flight.
4. The TFO understands in-flight emergencies and crew duties
5. The TFO understands the procedure for positive exchange of flight controls, if applicable
6. Any safety procedures specific to the mission
7. Use of seat belts or harness
8. Actions after a crash or emergency landing
9. Location of mission essential equipment (headsets, radio adapters, passenger iPad, etc.)

AIRCRAFT STARTING PROCEDURES

ACCEPTABLE:
The TFO exhibits a commitment to, and an understanding of, the responsibilities of the TFO during aircraft starting procedures. The TFO ensures the listed tasks are consistently followed.

IMPROVEMENT NEEDED:
The TFO demonstrates a general understanding of his/her responsibilities during aircraft starting procedures. The TFO occasionally fails to follow a specific procedure but upon being reminded, or recognizing an error, immediately takes appropriate corrective action. The TFO occasionally forgets to maintain a sterile cockpit (unnecessarily talking to passenger or pilot) during aircraft starting.

UNACCEPTABLE:
The TFO repeatedly fails to follow aircraft starting procedures, or demonstrates a degree of carelessness or indifference to the starting procedures. The TFO has to be repeatedly reminded of procedures and appears unwilling to learn specific tasks. The TFO becomes distracted or loses focus during starting procedures, or jeopardizes the safe start of an aircraft or the safety of unit personnel.

TASKS
1. Ensures all nearby hangar doors are closed prior to starting the aircraft
2. Knows the location and proper storage of all external power units
3. Selects the proper external power unit for the appropriate aircraft (as required)
4. Ensures all other aircraft doors and hatches are secured
5. Ensures the aircraft fuel cap is secured
6. Ensures that the dolly chalks are installed (if using dolly)
7. Ensures the area immediately surrounding the aircraft is free of debris, obstructions, vehicles, and people
8. Follows along and confirms that the pilot is utilizing the pre-start & start checklists and assists the pilot as needed
9. Properly plugs the external power unit into the aircraft when directed to do so by the pilot (as required)
10. Disconnects the external power unit from the aircraft when directed by the pilot to do so (as required) and closes the aircraft EPU panel
11. Demonstrates knowledge of appropriate hand signals used to notify the pilot of a fire or any other reason to abort the start
12. Demonstrates knowledge of the procedures to be followed in the event of an aircraft fire during starting procedures, including operating procedures of the available firefighting apparatus

AIRCRAFT EMERGENCIES, OBSERVATION, CREW ASSISTANCE

ACCEPTABLE:
The TFO demonstrates thorough knowledge and proficiency with the listed tasks.

NEEDS IMPROVEMENT:
The TFO needs to be reminded of his/her required actions during a specific emergency procedure. The TFO performs an emergency procedure incorrectly but with minimal training can correctly perform the procedure.

UNACCEPTABLE:
The TFO fails to understand or demonstrate one or more emergency procedures. The TFO demonstrates an inability to learn new procedures, fails to practice, and cannot retain previously demonstrated emergency procedures. Any act that places the crew in danger or poses a substantial risk to equipment is unacceptable.

TASKS:
1. Transmits aircraft location, nature of emergency and need for assistance on appropriate police frequency, as time permits
2. Demonstrates proper crash position during an emergency and, if time permits, can instruct passengers when to assume the crash position
3. Briefs passengers on the nature of the emergency and any required actions, if time permits
4. Knows location and operation of aircraft fuel valve
5. Knows emergency engine shutdown procedures (Engine start switch to off, emergency fuel shutoff, fuel pump off, & battery off)
6. Knows and explains aircraft evacuation procedures as needed
7. Explains basic knowledge of post-crash survival to include, lost and found considerations, available radio communications, signaling devices and weather/shelter considerations
8. Explains in-flight fire or smoke in the cockpit considerations.
9. Explains considerations for pilot incapacitation
10. Explains emergency versus precautionary landings
11. The TFO can continue to communicate with the pilot and crew as needed, without panicking and assists in avoiding emergencies
12. The TFO continues to assist the pilot and can advise of airspeed, altitude, attitude and any other reading requested by the pilot
13. The TFO remains vigilant in his observations during an emergency
14. The TFO can identify the Emergency Locator Transmitter (ELT) components and manually select the toggle switch ON/OFF

RADIO OPERATION

ACCEPTABLE:
The TFO demonstrates proficiency in operating the installed law enforcement radios, the aircraft VHF radio, aircraft audio panels, and any handheld radio connected to the aircraft.

NEEDS IMPROVEMENT:
The TFO occasionally demonstrates some degree of unfamiliarity with the radio equipment but quickly becomes proficient when reminded of procedures.

UNACCEPTABLE:
The TFO demonstrates a significant degree of unfamiliarity with the radio equipment, even after repeated training sessions.

TASKS:

1. The TFO can operate the Cobham multi-band radio; on/off, volume control, primary channel selector, secondary channel selector, scan enable/disable, scan programming, simulcast on multiple bands, relay on multiple bands, direct mode on/off (off repeater), can change and activate encryption keys found in the radio
2. The TFO can operate all other radios installed in the aircraft in an efficient manner.
3. The TFO can operate the audio panel; monitor volumes, monitor selections, VOX/ICS selection, transmit selection, master volume, and ICS volume
4. The TFO can operate the Aircraft VHF radio; on/off, volume, channel selection/tuning
5. The TFO can operate the Public Address (PA) system, including connection of an external audio source (iPhone, iPad, Etc.) and use of the siren

CHURCHILL MAPPING SYSTEM (Including Downlink)

ACCEPTABLE:
The TFO demonstrates knowledge and proficiency in operation of the Churchill mapping system. The TFO can utilize touchscreen buttons and the keyboard to access various menus in order to successfully operate the mapping system to achieve mission success. The TFO can operate the DVR and downlink from within the mapping system menus.

NEEDS IMPROVEMENT:
The TFO requires assistance and guidance when operating the Churchill mapping system. The TFO must be prompted in order to utilize a feature of the mapping system that would be beneficial.

UNACCEPTABLE:
The TFO needs repeated training and continues to demonstrate a lack of knowledge on the Churchill mapping systems. The TFO cannot access the menus to the point that the mission is compromised.

TASKS:
1. TFO can set up the pilot monitor and TFO monitor as required
2. TFO can enter target address and notifies pilot when course guidance information is available on the pilot monitor
3. TFO is able to select map mode and/or satellite mode in order to familiarize themselves with the scene before arrival
4. TFO selects video mode (overlay), raw FLIR video, or split screen (as needed) prior to arriving on scene
5. TFO is able to declutter the overlay (removing parcel/street data) when needed
6. TFO confirms the Churchill DVR is recording (camera & screen) prior to arriving on scene
7. TFO can perform inflight playback of the DVR
8. TFO can turn the video downlink on, switch downlink channels, choose video output source (HD Overlay or standard definition raw FLIR) and confirm the video downlink is on (if required) prior to arriving on scene
9. TFO can switch the directional downlink antenna from the central receive site to the coordinates of a mobile command post
10. TFO knows the map symbology
11. TFO can select and save waypoints as needed
12. TFO can select split screen (video & map modes) when necessary
13. TFO can screen capture still images
14. TFO can download video and other data to the installed thumb drive
15. TFO knows proper shutdown procedures
16. TFO knows how to contact Churchill Navigation or CNC customer support and allow them to remotely connect to the system in order to provide updates and perform maintenance

FLIR SYSTEM OPERATION

ACCEPTABLE:

The TFO is very familiar with the operation, features, and care of the onboard FLIR. The equipment is well maintained and functioning properly. The TFO can properly configure the FLIR for the appropriate mission and perform a non-uniformity correction (NUC calibration) as needed. The TFO is aware of which sensors (HDEO1, HDEO2, HDIR, & HDLL) and/or features are best suited for the current mission environment but ensures that all sensors and features are configured and immediately available should their use be needed.

NEEDS IMPROVEMENT:

The TFO requires minimal assistance to operate the camera system. The equipment is maintained but needs attention. The TFO must be instructed on how to configure and/or switch to a different sensor in flight or how to blend two sensors. The TFO fails to plan ahead for when a specific sensor or feature may be needed as the mission environment changes.

UNACCEPTABLE:

The TFO cannot properly operate the camera system. The TFO is unable to capture important information or evidence because of negligence. The TFO can do little more that steer, zoom, and focus the FLIR without assistance. The FLIR may also be poorly maintained. The TFO does not have a thorough understanding of all of the FLIR's sensors and various features. The TFO cannot verbally explain basic infrared theory as is often required in courtroom testimony.

TASKS:

1. The TFO can activate the various FLIR sensors and toggle between them as needed
2. The TFO can quickly and accurately acquire targets and points of interest
3. The TFO can explain and demonstrate the interaction between the FLIR system and the Churchill mapping system, where applicable
    a. The TFO understands that the Churchill mapping system database supplies ground elevation, surface features, and parcel data
    b. The TFO understands that the FLIR internal mapping database only contains GPS coordinates based on the gimbal's azimuth and elevation angles and does not account for surface features or elevation (utilizes a reference ellipsoid)
    c. The TFO is familiar with the FLIR geopoint feature and how the laser range finder (LRF) should be used to correct for any changes in elevation
4. The TFO is familiar with all of the UHCU's buttons, switches, and force transducer and can, in most cases, use the UHCU without looking at it (by feel only) and without referring to a manual or checklist
5. The TFO knows what the FLIR's Inertial Navigation System (INS) is and how to confirm that it is aligned and functioning.
6. The TFO knows the function of the different steering modes and how to select them:
    a. Inertial Point (IP)
    b. Heading Hold (HH)

   c. Geopoint (GEOPOINT)
   d. Geo Rate Aid (GeoRateAid)
7. The TFO is familiar with and can utilize the following FLIR functions:
   a. Auto Tracker (Centroid, Correlation, & Scene Lock)
   b. Auto/manual focus
   c. AUX switches/buttons
   d. BIT test/FIT test/error messages
   e. Blend (IR/EO or IR/LL)
   f. Cage (90 degrees right in azimuth & 30 degrees down in elevation)
   g. Desiccant inspection & replacement (moisture window)
   h. Digital Detail Enhancement (DDE) (medium recommended)
   i. EO1 use
   j. EO2 spotter scope
   k. Exposure modes (Auto, manual, histogram, ALAP)
   l. Field of view control (continuous, step, & hyper zoom)
   m. Force transducer
   n. Freeze function
   o. Gain & level
   p. Haze penetration
   q. Laser Range Finder (LRF)
   r. Laser Illuminator (LI)
   s. Laser Pointer (LP)
   t. Laser continuous vs. pulse modes
   u. Menu manipulation / item selection. (main MENU & COMMAND LIST menu)
   v. Non-Uniformity Correction (NUC calibration)
   w. Polarity
   x. Rate Aid
   y. Stow (take-off & landing – 180 degrees aft, 12 degrees up)
   z. White balance (auto vs manual)

DIGITAL VIDEO RECORDER OPERATION

ACCEPTABLE:

The TFO ensures there are thumb drives with available memory installed in the aircraft at all times. The TFO can activate the Churchill DVR and accurately capture video for future use. The TFO can properly download the video to a thumb drive and then download the video to the TFO office computer. The TFO can then upload the video to Evidence.com as required.

NEEDS IMPROVEMENT:

The TFO requires guidance or assistance when operating the DVR. The TFO occasionally forgets to download thumb drives at the end of each flight or shift.

UNACCEPTABLE:

The TFO cannot operate the DVR or fails to operate it when necessary. The DVR is poorly maintained or inoperable. The TFO does not know how to download videos and is unable to upload videos to Evidence.com.

TASKS:

1. The TFO can activate the DVR (camera & screen) and confirm its operation
2. The TFO ensures two thumb drives with available memory are installed in the aircraft
3. The TFO stops and starts the DVR while transitioning to a new mission or call
4. The TFO knows how to perform inflight playback of the DVR
5. The TFO ensures the device is off prior to landing or shutting down the aircraft
6. The TFO can properly download the video to a thumb drive and then download the video to the TFO office computer.
7. The TFO can upload video from the TFO office computer to Evidence.com as required
8. The TFO is familiar with the Aviation Unit video retention policy
9. The TFO is able to copy and move the video file within the TFO office computer into various subfolders for potential training purposes such as (FLIR apprehension, foot pursuits, vehicle pursuits, SWAT entries, VIT, PIT, TFO/Pilot mistakes for example training purposes, TFO/Pilot good work for example training purposes.

GARMIN GPS/NAV/COM

ACCEPTABLE:

The TFO can assist the pilot with navigational duties using the GPS systems onboard the aircraft to include entering waypoints and retrieving airport and weather information from the GPS. The TFO can tune the VHF radio frequencies on the Garmin GPS/NAV/COM as needed by the pilot.

NEEDS IMPROVEMENT:

The TFO needs further training to properly enter waypoints into the GPS, or in retrieving flight relevant information from the GPS, or requires frequent refresher training on the use of the GPS/NAV/COM systems.

UNACCEPTABLE:

The TFO cannot enter waypoints into the GPS or cannot assist the pilot with GPS navigation and flight relevant information. The TFO cannot tune the VHF radio frequencies on the GPS/NAV/COM.

TASKS:

1. The TFO can enter GPS coordinates into the Garmin GPS/NAV/COM
2. The TFO can retrieve waypoints and airport information from the GPS/NAV/COM including latitude/longitude, cities, intersections, airports, streets, and geographical locations
3. The TFO is familiar with the separate “pages” of the GPS system and how to use them
4. The TFO can tune the VHF radio on the GPS/NAV/COM and switch the frequency from the standby window to the active window

PURSUITS

ACCEPTABLE:
The TFO demonstrates a "take charge" attitude during a pursuit, and is able to perform the task list while under the stress of a pursuit. The TFO remains calm, communicating effectively with the pilot, ground units, supervisors, and dispatch.

NEEDS IMPROVEMENT:
The TFO fails to communicate important and relevant information to the pilot, ground units, supervisors, and/or dispatch. The TFO is unable to perform some pursuit task list items.

UNACCEPTABLE:
The TFO is timid, unsure, and reluctant to become involved in a pursuit. He or she becomes excited during a pursuit, resulting in ineffective communications. The TFO is unable to effectively manage available airship resources including the FLIR, radios, and/or searchlight. The TFO is unable to effectively direct officers. The TFO fails to provide relevant information to dispatch, ground officers, or supervisors as to the conditions of the pursuit.

TASKS:
(GROUND)

1. Reviews BSO pursuit policy
2. Can explain the Aviation Unit's role within BSO pursuit policy

(AIR)

1. Advises dispatch enroute and an ETA
2. Adheres to BSO pursuit policy as it pertains to the Aviation Unit (listed below):

Requests for Aviation Assistance:

1. Pursuit supervisors will request Aviation assistance via Communications.

2. At the time of initial visual contact, the Aviation Unit, when practical, shall broadcast:

a. The total number of pursuing units observed;

b. Traffic conditions

3. When Aviation assumes pursuit responsibility, all pursuit vehicles will discontinue the pursuit immediately unless otherwise directed by the pursuit supervisor or exigent circumstances are present (e.g., armed suspect, murder suspect, hostage situation, etc.), which may require pursuing units to remain in pursuit of the suspect's vehicle.

a. If exigent circumstances are present, authorized ground units shall continue the pursuit. Authorized ground units shall broadcast whatever information is necessary to assist Aviation.

b. In the absence of exigent circumstances, Aviation will continue to broadcast the direction of travel and other pertinent information. Ground units will position themselves for apprehension once the vehicle has stopped.

(AIR TASKS – continued)

4. The Aviation unit will notify the pursuit supervisor, when practical, of any unit that does not reduce its speed and disengage from the pursuit when the pursuit is terminated.

3. Accurately observes and relays relevant traffic conditions, hazards and other appropriate information to ground units in a timely fashion
4. Speaks in a clear calm manner
5. Utilizes the searchlight slaved to the FLIR when appropriate
6. Utilizes IR laser or illuminator at night and when appropriate
7. Utilizes laser range finder (LRF), touch screen, or X key to set a marker to record the location of pertinent events such as discarded items (weapons, stolen property, clothing, narcotics, etc.) or additional crime scenes (suspect attempted to burglarize a car or home while fleeing, carjacking attempt, assault LEO, etc.)
8. Confirms DVR is recording screen & camera
9. Re-broadcasts needed information as requested from a supervisor
10. Re-broadcasts original pursuit reference, suspect & vehicle descriptions, officer safety considerations (weapons involved), location and direction at frequent intervals or when additional channels are patched
11. In a professional manner, rebroadcasts reminders to ground units to transition to a high-risk/felony stop at the conclusion of the pursuit
12. If a “bail out” occurs, clearly indicates which suspect (description) they are following and if able, which position within the vehicle the suspect had occupied (review video if/when needed)
13. If multiple suspects bail out or if the vehicle continues to flee after a passenger bails out, asses the priority follow coordinates with pilot for possible assistance with maintaining visual of any suspects the TFO is not actively following
14. If dispatch is unable to patch the necessary channels during the pursuit, and the TFO or pilot have the ability to do so without losing sight of the suspect vehicle, the aircrew should patch the necessary channels utilizing the Cobham radio’s (simulcast & relay functions). Prior to patching channels, the TFO should make announcements of which channels are being patched. Just after patching channels, the TFO or pilot should make another announcement and confirm the channels are patched

HIGH-RISK VEHICLE STOPS

ACCEPTABLE:

The TFO displays a comprehensive understanding of their role and abilities during a high-risk vehicle stop. The TFO correctly interprets situational factors and is able to provide tactical insight to ground units, thus enhancing their safety and efficiency. The TFO correctly uses tactical equipment such as the searchlight, FLIR, IR laser pointer or illuminator, and public address system as needed.

NEEDS IMPROVEMENT:

The TFO is able to monitor the vehicle stop with the FLIR but needs to be reminded to properly utilize all tactical equipment or misses the opportunity to enhance ground officers' safety.

UNACCEPTABLE:

The TFO fails to recognize obvious situational needs of the pilot or ground units. The TFO fails to communicate meaningful direction or information to the PIC or officers on the high-risk vehicle stop. The TFO fails to anticipate the need for tactical equipment or is unable to use the equipment due to lack of foresight, familiarity or training with the equipment.

TASKS:

1. Assists the pilot in positioning the aircraft
2. Coordinate with pilot to determine proper altitude in order to lower aircraft noise for ground units to be able to give commands to suspect vehicle
3. Clearly communicates the progress of the stop
4. Establishes traffic posts and/or perimeter positions as needed
5. Directs ground units to possible 90 degree positions of cover for better view into suspect vehicle
6. Warns ground units of any potential cross-fire situations observed
7. Is aware of searchlight's effect on ground officers
8. Conducts visual inspection of the suspect vehicle to the degree possible
9. At night, utilizes IR illuminator combined with FLIR low light sensor (HDLL) to look through vehicle windows, if able
10. Uses tactical equipment as appropriate
11. Uses public address system as needed

PERIMETER CONTAINMENT

ACCEPTABLE:
The TFO recognizes when a perimeter needs to be established and is able to coordinate the establishment of a perimeter.

NEEDS IMPROVEMENT:
The TFO is slow to recognize when a perimeter is needed, or to direct ground units to proper perimeter locations. The TFO has to be reminded to establish a perimeter or does not select proper containment points. The TFO is hesitant to reposition ground units in order to improve an existing perimeter.

UNACCEPTABLE:
The TFO does not understand the benefits of perimeter establishment. The TFO repeatedly fails to recognize when a perimeter is appropriate or is unable to properly place ground units in positions to enhance the effectiveness of a perimeter. The TFO is unable to reposition ground units in order to improve an existing perimeter.

TASKS:
1. Demonstrates an understanding of the purpose and importance of incident containment.
2. Demonstrates an understanding of the three types of containment used in air support operations, including:
    a. Aerial containment
    b. Ground containment
    c. Combination of both aerial and ground containment
3. Determines the type of containment required for the particular incident, including the following:
    a. Fleeing criminals
    b. Crimes in progress situations
    c. Crowd control situations
    d. Traffic management
    e. Critical incident situations
    f. Fire or hazardous material situations
4. Identifies the target location with the FLIR while approaching the scene
5. Provides pilot directions for immediate aerial containment around a target location
6. Identifies areas or locations that require posting of ground units to maintain containment
7. Coordinates and directs ground units to locations that establish or enhance containment of the target location
8. Provides timely information as needed while ground units are enroute to the location or while ground units are in the process of establishing their positions
9. Visually confirms that ground units are positioned at previously directed locations and adjusts the perimeter as needed

10. Understands when use of a searchlight may be appropriate in perimeter containment, including:
    a. Using searchlight to guide ground units to a perimeter location
    b. Using searchlight on an uncovered perimeter location in order to deter suspect use
    c. Using searchlight outside of perimeter or away from known suspect location as a distraction or decoy to either encourage the suspect to continue hiding or to encourage suspect movement (depends on situation and should be coordinated with ground units if suspect in sight)

SUSPECT SEARCHES

ACCEPTABLE:

The TFO is able to use a logical and systematic approach to searching for a wanted suspect. In addition, the TFO is able to modify search patterns or techniques based on evolving circumstances. The TFO is able to coordinate and direct ground units or other resources during the search process. The TFO is familiar with common suspect trends and hiding locations.

NEEDS IMPROVEMENT:

The TFO is slow to develop a systematic approach during an active search. The TFO has difficulty modifying a search plan in response to developing information. The TFO does not utilize multiple FLIR system sensors or blending when doing so would be beneficial. The TFO has difficulty recognizing what areas have been previously searched or what areas remain to be searched. The TFO does not always take into consideration common suspect trends and hiding locations.

UNACCEPTABLE:

The TFO conducts searches in a haphazard fashion, even after constructive input from the pilot or other unit trainers. The TFO is unable to direct ground units effectively, or utilize other available resources. The TFO is unable to adjust search patterns or related activities to develop an efficient search. The TFO is unfamiliar with common suspect trends and hiding locations.

TASKS:

1. If a foot pursuit was involved, TFO confirms all ground units are accounted for (this can usually be accomplished by listening prior to arrival. If there is any doubt, ask!)
2. TFO obtains the following suspect information (this can usually be accomplished by listening prior to arrival. If there is any doubt, ask!):
    a. SUSPECT'S LAST LOCATION (find out if seen by LEO, an on-scene witness, or 2nd hand info)
    b. SUSPECT DIRECTION
    c. SUSPECT DESCRIPTION
    d. NATURE OF THE CRIME
    e. TIME DELAY
3. TFO visually acquires the target location with the FLIR prior to arrival
4. TFO may quickly scan the area for a suspect that is still moving or easily identifiable
5. TFO establishes an effective perimeter, giving priority to cutting off possible suspect escape routes first
6. TFO will employ one or more of the following search techniques as appropriate:
    a. A search beginning at the location last seen and following the suspect's likely path
    b. A search beginning at the location last seen and checking for immediate hiding locations the suspect may have taken once out of view of ground units or victims/witnesses (ambush sites)
    c. A search beginning at the perimeter location where the suspect most likely would have confronted ground units blocking the suspect's escape path

   d. A systematic house by house and block by block search
   e. A search just in front of where K9 is tracking/searching (used when suspect is likely armed and there is an imminent danger to ground units)
7. TFO is familiar with common suspect escape trends as listed below:
   a. RUN UNTIL CONFRONTED
   b. PATH OF LEAST RESISTENCE
   c. RUNNING STRAIGHT THROUGH THE BLOCK
   d. DOUBLE BACK
   e. USE OF ALLEYS & EMPTY LOTS
   f. CROSSING MAJOR ROADS & HIGHWAYS
8. TFO is familiar with common suspect urban hiding locations as listed below:
   a. UNDER VEHICLES
   b. SHEDS
   c. INSIDE TRASH CANS AND DUMPSTERS
   d. WITHIN LANDSCAPING / BUSHES
   e. IN TREES
   f. INSIDE DOGHOUSES
   g. BETWEEN STRUCTURES
   h. UNDER STAIRWELLS
9. The TFO communicates effectively with the pilot, ground units, and dispatch by "PAINTING A PICTURE" of the scene
10. The TFO Utilizes the FLIR to direct ground units to an infrared heat source while taking into account all officer safety considerations (cover, concealment, obstacles, stealth, etc.)
11. The TFO does not use the word "clear" when describing negative FLIR search results. TFO simply explains that "there are no obvious heat sources" or something similar. The phrase "use caution" can be used when ground units are checking an area where no heat sources were seen
12. The TFO directs ground units who are on foot by utilizing the following techniques:
   a. At night, request that K9 teams utilize IR strobe(s) which are visible with HDLL sensor
   b. Identify that you are communicating with the correct unit by having them wave their hand (day) and/or flash their light "laso" motion, safety permitting. (at night when using HDLL or HDEO1 sensor)
   c. Direct the unit which way you want the unit to go by providing both a cardinal direction and a ground reference that is in view of the unit. Examples: "Heat source is south of you in the direction of the red tow truck." "Heat source is northeast of you towards the 2 story house."
   d. Another method of providing direction is having the ground unit extend their arm and turn until they are pointing in the desired location. If safety permits, they may also use their flashlight while turning until pointing in the desired location (at night utilizing HDLL sensor)
   e. Provide easily understood distances that the ground unit can relate too. Unless utilizing an accurate bracketing or distance measuring feature, avoid using "feet" because many people, including TFOs, incorrectly estimate distances in feet. If estimating distances, try to use 10-yard increments as many people are familiar with

the yard lines of a football field. Examples: “heat source is about 50 yards away” or “heat source is 3 houses down”

f. The TFO knows how to “bracket target distance” by adjusting the field of view so that one reticle tick mark is on the ground unit and the other is on the target. That distance is listed next to the field of view (FOV) slider. TFO may also use one reticle and the cross hair by dividing the displayed distance by two (2)
g. When time permits, TFO will use the distance measuring tool on the Churchill mapping system to provide an exact distance and bearing as needed. The TFO will convert the bearing to an understandable direction as previously described
h. The TFO will always convey the exact location of a target but, as needed, the TFO will explain to ground units that he/she is directing them to a position of cover prior to final guidance to the target to avoid directing them too close

13. Once ground units are in contact with a suspect, increase the field of view to check for any approaching additional suspects and to assist guiding additional ground units to the scene
14. The pilot can assist with locating and directing ground units outside of the TFO’s field of view. The pilot can then relay the information to the TFO or the pilot can transmit directly to ground units. A TFO & pilot both transmitting on scene requires coordination, training, and practice
15. The TFO should never transmit assumptions about the suspect’s intentions while the suspect is in contact with ground units. The TFO must remember that ground units may have a more complete picture of what is happening, including the ability to hear a suspect potentially making threats and/or hear witnesses and victims warning ground units that the suspect is armed. The exception to this would be obvious threats visible to the TFO that would not be visible to ground units in contact. Below are examples of recommended and not recommended radio transmissions:
    a. Ground units are “in contact with the suspect” not “suspect is in custody”
    b. Ground units are “in contact” not suspect is “surrendering”
    c. “K9 is in contact” not “K9 is apprehending”
    d. If necessary, warn a ground unit that “K9 is off-lead” not “K9 is loose”
16. The TFO will provide officer safety information in a timely manner if the information is not visible to ground units. Below are examples of some recommended radio transmissions, if applicable, about suspects, persons, heat sources, etc.:
    a. “stop, do not go over that fence”
    b. “… is on other side of the fence from you”
    c. “stop, do not go around that corner”
    d. “… is right around the corner that you’re at now”
    e. “heat source is in the backyard of the house you’re in front of”
    f. “right hand is in his pocket”
    g. “right hand is in his waistband”
    h. “suspect is holding something in his right hand”
    i. “suspect just reached under the seat”
17. If requested by K9, TFO utilizes PA to make K9 announcements (either recorded or live) and confirms from K9 that the announcement was clearly understood on the ground

18. If requested by K9 or a supervisor, TFO utilizes PA to make announcements to the public (BOLOs, warnings to remain indoors, etc.)
19. If requested by K9 or a supervisor, or under exigent circumstances, TFO utilizes PA to make direct announcements to the suspect

MISSING PERSONS

ACCEPTABLE:
The TFO demonstrates an understanding of the listed tasks. The TFO coordinates with the pilot and ground units on potential sightings of the missing person. The TFO obtains all relevant information concerning the missing person's description or possible destination. The TFO understands common behaviors of missing endangered persons.

NEEDS IMPROVEMENT:
The TFO uses poor judgment or fails to obtain some of the relevant information. The TFO misses an element of the person's description or possible destination.

UNACCEPTABLE:
The TFO is indifferent to "Missing Persons" calls and fails to obtain all relevant information available. The TFO fails to coordinate with ground units or properly assess the aircraft's role in the search. The TFO routinely fails to perform the listed tasks.

TASKS

1. Ensures communication is established with a ground unit assigned to the call
2. Obtains the following information:
    a. Physical description
    b. Clothing description
    c. Last known location
    d. Possible destination
    e. Any disabilities or physical limitations
    f. Time last seen
    g. Any possible tracking devices (SafetyNet, SafetyLINK, Angelsense, Project Lifesaver etc.)
    h. Missing person's name if appropriate (for potential PA announcements)
3. **CHECKS NEARBY BODIES OF WATER FIRST**
4. TFO uses a logical and systematic approach to search for the missing person
5. After conferring with the pilot and the ground supervisor, and after notifying dispatch, TFO can make clear & concise public address announcements giving citizens a BOLO for the missing person and, if circumstances dictate, speak directly to the missing person to persuade them to assist in being located
6. Observes citizens responses to the ongoing search
7. Coordinates with ground units on possible sightings

SURVEILLANCE / VEHICLE FOLLOWS

NOTE: TFO must be approved by SID command to conduct SID and/or federal agency surveillance missions

ACCEPTABLE:

The TFO understands the covert nature of surveillance operations and how they differ from traditional Aviation Unit missions. Prior to the flight, the TFO attends the operational briefing or communicates directly with the case agent and/or supervisor in charge of the operation. The TFO obtains all relevant information about the operation and its purpose. The TFO is able to convey the Aviation Unit's abilities and/or limitations. The TFO also provides any suggestions and/or equipment that may assist the operation such as thermal markers, IR strobes, and/or downlink monitor. The TFO effectively communicates with ground units and provides the necessary details of his/her observations to ground units.

NEEDS IMPROVEMENT:

The TFO occasionally does not obtain all the necessary briefing information prior to the flight and/or does not clarify what the purpose of the operation is. The TFO does not update ground units frequently enough and occasionally leaves out necessary investigative and/or officer safety related details of his/her observations.

UNACCEPTABLE:

The TFO does not obtain briefing information prior to the flight. The TFO does not understand the covert nature of surveillance operations. The TFO is unable to maintain a continuous view of a target vehicle and/or is unable to provide ground units with a current location and direction of the target. The TFO is unable to provide investigative and/or officer safety related details to ground units.

TASKS:

1. Prior to the flight, the TFO attends the operational briefing or communicates directly with the case agent and/or supervisor in charge of the operation
2. During the briefing, the TFO conveys the Aviation Unit's abilities to support the operation, including any airspace limitations and/or endurance limitations.
3. During the briefing, the TFO determines if police radio audio will be recorded and where video evidence should be submitted (if SID or federal operation)
4. During the briefing, the TFO provides any suggestions and/or equipment that may assist the operation (thermal markers, IR strobes, downlink monitor, CNC LIVE password, etc.).
5. Prior to the flight, the TFO obtains all relevant information as listed below:
    a. Purpose of the operation
    b. All known locations and potential locations (for entering into the mapping system and for allowing the pilot to review airspace and coordinate with ATC as needed)
    c. Target descriptions

   d. Target vehicle descriptions (including license plate)
   e. Any UC and UC vehicle descriptions
   f. Any CI or CI vehicle descriptions
   g. What units and/or agencies are involved
   h. Radio channel (also obtain or suggest an alternate channel for out-of-county ops)
6. The TFO is aware of the various types of surveillance missions and how their goals can differ. Some potential mission are listed below:
   a. Buy/Busts
   b. Controlled buys (Covering a UC, witnessing a CI make a controlled buy for search warrant PC, following a target to and/or from a source of supply, etc.)
   c. Pattern of life and/or intelligence gathering (prior approval from TFO supervisor or Aviation Unit supervisor required – generally not best use of Aviation Unit rotor wing assets.)
   d. Tracking of suspect vehicle for apprehension when stopped (stolen cars, wanted suspects, other vehicles where a pursuit is not authorized)
   e. Tracking of a suspect vehicle until a crime is witnessed
   f. Covert photography, video, or FLIR scan
   g. Threat assessments (pre-event planning)
7. The TFO is aware of the unique vocabulary used during surveillance
8. The TFO is aware of the common counter surveillance behaviors of targets and is always looking for unknown additional targets who may be performing counter surveillance
9. The TFO is aware of the sometimes subtle target actions observed that may need to be relayed to ground units
10. The TFO updates ground units to any issue that may prevent the TFO from maintaining visual and requests that ground units “tighten up” or “take the eye” as needed (inclement weather/visibility, airspace restrictions, fuel limitations, etc.)
11. The TFO keeps the pilot informed of the progress of the operation
12. The TFO is aware of ground units which may be following too closely and relays that information accordingly
13. When a target vehicle is parked, the TFO is able to position ground units for a “take-away” to cover all possible directions of travel
14. If possible, the TFO is able to direct a ground unit to a suitable location in order to “take the eye” and relieve the TFO of maintaining constant visual of an unoccupied vehicle
15. The TFO is aware of the sensitive nature of surveillance operations and employs various operational security (OPSEC) measures to protect the following: the integrity of the investigation, any UC personnel, any confidential informants/sources, any surveillance equipment, and any other information pertaining to sources and methods
16. TFO is aware of “burn concern” based on aircraft altitudes, distances, and flight patterns
17. The TFO is aware of what is privileged information that should not be disclosed in reports or in court – including the type of aircraft and aircraft altitude
18. The TFO will complete any reports necessary or as requested by the case agent

LOJACK OPERATION

ACCEPTABLE:
The TFO takes note of a LOJACK Reply Code and confirms the description of the stolen vehicle/equipment and confirms it is still active via Dispatch or Information as stolen. The TFO is able to monitor the Churchill mapping system display of the LOJACK signal bearing and strength. The TFO understands the basic concepts of triangulation and is able to interpret the Churchill mapping systems triangulated location estimate. The TFO utilizes this information to begin a systematic search for the stolen vehicle/equipment.

NEEDS IMPROVEMENT:
The TFO requires assistance in setting up the Churchill mapping system for LOJACK operations and requires assistance on where to begin the search.

UNNACCEPTABLE:
The TFO has no knowledge in operation of the equipment and cannot utilize it to maximize mission success.

TASKS:

19. The TFO takes note of when a LOJACK Reply Code is received
20. The TFO can verify the Reply Code via dispatch and obtains the vehicle/equipment description, license plate (if applicable), and nature of the crime
21. The TFO understands the principals of bearing, signal strength, and triangulation
22. The TFO understands that the signal strength may be stronger when airborne than that of a ground receiver and therefore the stolen vehicle/equipment may be farther away than what ground units would estimate with the equivalent signal strength
23. The TFO can develop a search pattern for locating the vehicle/equipment and communicate the location to ground officers
24. The TFO spends a suitable amount of time attempting to locate the vehicle/equipment before ending the mission
25. When the TFO locates a possible stolen vehicle/equipment, the TFO attempts to utilize the FLIR HDEO2 (spotter scope) to read the license plate
26. The TFO is able to guide ground units to the possible stolen vehicle/equipment and provide them with all available information to include:
    a. any occupants
    b. is vehicle moving or engine running
    c. is vehicle hot, warm, or cold
    d. any nearby persons and are they taking interest in the vehicle
    e. any officer safety factors such as nearby balconies or nearby criminal hangouts
27. The TFO knows the physical location of the LOJACK equipment, design, and function
28. The TFO can identify and describe the various audible tones generated by the system

LASER POINTER & LASER ILLUMINATOR OPERATION

ACCEPTABLE:
The TFO can explain the differences between the laser range finder (LRF), laser pointer (LP), and laser illuminator (LI). The TFO can arm the laser pointer or laser illuminator, accurately fire the laser, and take the laser out of operation without assistance. The TFO is able to switch between laser fire modes (continuous or pulse) and explain the differences. TFO understands risks associated with laser operation, including NOHD distance and aircraft laser fire regions.

NEEDS IMPROVEMENT:
The TFO requires minimal assistance to arm the laser pointer or laser illuminator, accurately fire the laser, and take the laser out of operation. The TFO requires assistance in switching laser fire modes. The TFO needs assistance explaining NOHD distance and aircraft laser fire regions.

UNACCEPTABLE:
The TFO cannot place the laser pointer or illuminator into operation or operates them in an unsafe manner. TFO cannot explain NOHD distance and aircraft laser fire regions. The TFO impedes the mission because of their lack of knowledge.

TASKS:
1. The TFO can explain the differences between the laser range finder (LRF), laser pointer, and laser illuminator
2. The TFO can arm the laser
3. The TFO can select laser pointer or laser illuminator and fire the laser
4. The TFO can switch between laser fire modes (continuous or pulse)
5. The TFO can take the laser out of operation and unarm the laser
6. The TFO can explain Nominal Ocular Hazard Distance (NOHD)
7. The TFO can explain aircraft laser fire regions and how the laser is enabled/disabled depending on their settings
8. The TFO can identify NOHD distance issues, aircraft laser fire regions issues, and eye safety related hazards associated with lasers

NIGHT VISION GOGGLE OPERATIONS

ACCEPTABLE:
The TFO can perform all required duties and responsibilities at night with the assistance of Night Vision Goggles (NVG's). The TFO maintains the equipment in a serviceable condition and maintains an accurate log.

NEEDS IMPROVEMENT:
The TFO requires additional training to properly operate the NVG's while performing nighttime operations.

UNACCEPTABLE:
The TFO does not have his NVG's when required or they are not operational. The TFO cannot properly attach them to the flight helmet or portable battery pack. The TFO poses a safety risk to persons or equipment while operating under NVG's.

TASKS:
1. The TFO can properly secure his NVG's and battery pack to the helmet
2. The TFO can adjust and focus the NVG's
3. The TFO maintains an accurate log of the NVG's
4. The TFO cares for the NVG's and does not cause them to become damaged due to negligence
5. The TFO assists the pilot during critical phases of flight using NVG's

SEARCHLIGHT/SEARCHLIGHT SLAVING SYSTEMS

ACCEPTABLE:

The TFO can place the searchlight into operation, lower the IR filter and maneuver the searchlight as required for mission success. The TFO can slave the searchlight to the FLIR system (when applicable). The searchlight and IR filter are maintained in a serviceable condition are mission capable.

NEEDS IMPROVEMENT:

The TFO requires guidance and assistance in operating the searchlight and IR filter. The searchlight, IR filter and controller are operable but not properly maintained.

UNACCEPTABLE:

The TFO cannot operate the searchlight, cannot lower the IR filter or does so at an unsafe speed. The searchlight and its components are inoperable due to negligence.

TASKS:

1. Utilizing the searchlight hand controller only, the TFO keeps the searchlight pointed at a residence sized target for two complete orbits without drifting off the target
2. Utilizing the searchlight hand controller only, the TFO can illuminate a moving vehicle with the searchlight for one minute without the light drifting off the target for an unreasonable amount of time
3. The TFO can adjust the beam of the searchlight
4. The TFO can lower and raise the IR filter
5. The TFO can slave the searchlight to the gimbal, where applicable
6. The TFO maintains the searchlight and associated equipment
7. If time permits, TFO leaves the searchlight on for 20 minutes to prevent carbon build up
8. If time permits, TFO continues to run the searchlight fan for 10 minutes after the lamp is extinguished

SEARCH AND RESCUE

ACCEPTABLE:

The TFO demonstrates the ability to perform all of the search and rescue tasks listed. The TFO communicates relevant information to the pilot quickly and effectively. The TFO understands the appropriate use of on-board tactical equipment and how to configure the aircraft for an emergency transport. The TFO maintains the land rescue drop bag and water rescue throw bag and ensures they are onboard the aircraft prior to flight. The TFO knows the location of the drop bags and can utilize the equipment inside of them.

NEEDS IMPROVEMENT:

The TFO performs most of the search and rescue tasks listed but he/she requires reminders for certain tasks. However, with minimal prompting, the TFO completes each task successfully. The TFO knows the location of the drop bags but they are missing key survival items and/or the VHF radio's batteries are dead. The drop bag is onboard the aircraft.

UNACCEPTABLE:

The TFO is unable to perform one or more of the search and rescue tasks proficiently, even after being instructed and trained several times. The TFO does not know the location of the drop bags and they are not accounted for or onboard the aircraft.

TASKS:

1. The TFO inspects the land rescue drop bag and water rescue throw bag periodically and ensures they are well equipped and onboard the aircraft
2. The TFO is knowledgeable in the use of items inside the drop bags
3. The TFO has access to the list of required items in the drop bags
4. The TFO ensures the VHF radio is operable with extra batteries in the land rescue drop bag
5. The TFO ensures that all items with expiration dates are current
6. The TFO knows the location of the drop bags on board the aircraft
7. Deploys water rescue throw bag, including smoke markers and/or dye markers when necessary
8. Deploys land rescue drop bag, when necessary
9. Deploys rescue bags without jeopardizing the aircraft
10. Communicates effectively with the pilot in guiding aircraft to the proper drop location
11. Removes and cares for aircraft doors prior to flight (if needed)
12. Secures loose items in cabin
13. Explains considerations of "off-airport" landing operations
14. Explains use of tactical equipment in locating missing persons including multiple FLIR sensors (HDEO, HDLL, HDIR, blending) and searchlight

POST FLIGHT INSPECTION PROCEDURES

ACCEPTABLE:
The TFO demonstrates the ability to perform post-flight procedures in a consistent, efficient and safe manner.

NEEDS IMPROVEMENT:
The TFO has to be reminded of a task or procedure, or performs the tasks inconsistently.

UNACCEPTABLE:
The TFO demonstrates a consistent level or carelessness or indifference to post-flight procedures. The TFO fails to follow the established checklist or after repeated training is unable to remember procedures. Any act or omission that places anyone in danger or could be harmful to equipment is unacceptable.

TASKS:

1. Confirms and/or assists pilot with aircraft “engine cool down” (30 seconds) and “engine shut down” checklists
2. Advises passengers of cool down procedures
3. Demonstrates a complete understanding of refueling procedures
4. Advises passengers when safe to exit and how to exit
5. Secures safety harnesses and equipment
6. Ensures proper status updates with dispatch
7. Documents necessary times and/or notes on kneeboard
8. Fully participates in crew debrief:
    a. Restate what the mission was
    b. TFO evaluation of what could have been done better (TFO & Pilot)
    c. TFO evaluation of what was done well (TFO & Pilot)
    d. Identify any follow-up actions necessary (research, training, etc.)’
9. Updates TFO squawk list as needed

MAINTENANCE

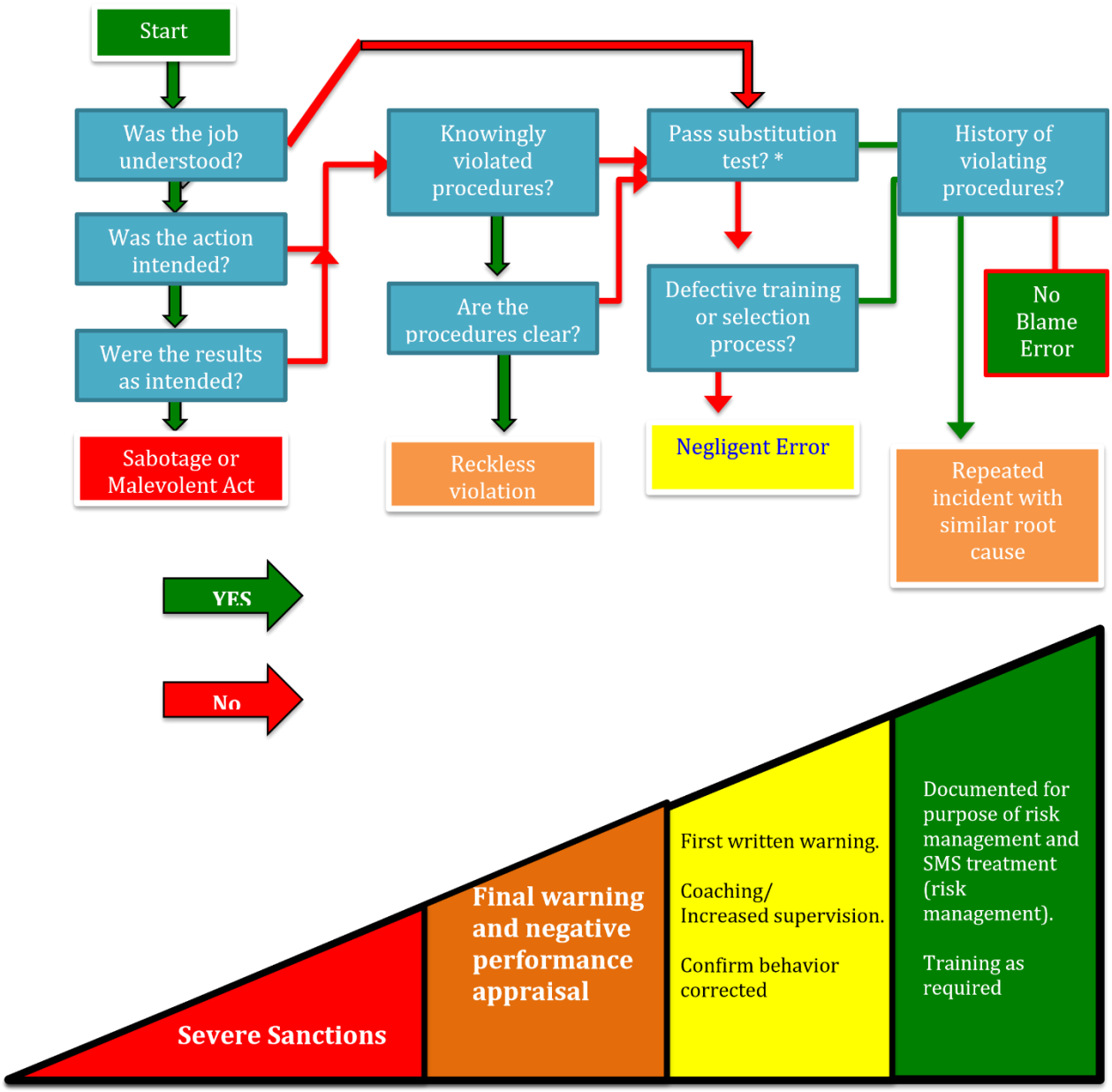
ACCEPTABLE:
The TFO performs necessary maintenance as required and assists where needed. The TFO helps to maintain the aircraft in a clean and serviceable condition. The TFO checks the tactical equipment squawk list daily and makes appropriate entries as required. The TFO successfully completes the 2 hour fork lift training course provided by the Director of Maintenance. The TFO assists with maintaining the hangar as needed.

NEEDS IMPROVEMENT:
The TFO occasionally fails to maintain the equipment but the equipment is serviceable. The TFO corrects deficiencies when noted. The TFO sometimes fails to check the tactical equipment squawk list daily.

UNACCEPTABLE:
The TFO often fails to maintain the equipment. The equipment is damaged and not reported or is completely unserviceable. The TFO fails to correct this action after repeated instruction.

TASKS:
1. Utilizes correct cleaning supplies for aircraft
2. Maintains cleaning supplies and keeps supply cabinet organized
3. Cleans aircraft windscreen/windows with approved materials
4. Inspects FLIR mount
5. Cleans FLIR lenses with approved materials
6. Inspects FLIR desiccant window (moisture indicator)
7. Requests Aviation Maintenance to changes and/or service FLIR desiccant when applicable
8. Cleans video monitors and touchscreens with approved materials as needed
9. Inspects searchlight mount
10. Cleans searchlight lenses with approved materials
11. Ensures aircraft cabin is clean and organized
12. Minimizes loose items during flight
13. Successfully completes the 2 hour fork lift training course provided by the Director of Maintenance.
14. The TFO assists with maintaining the hangar as needed.

A "JUST CULTURE" MISTAKE/DECISION CHART



***Substitution Test** = If anyone else in the same job position, under similar circumstances, were substituted in for the person(s) in question, would the results likely have been the same. Could this have happened to anyone else? If 'yes', it is a problem with the system, not the individual.