

Los Angeles Police Department
Aircrew Course
1850-23550

Instructional Goals: Introduce the student to Airborne Law Enforcement and preparation for a Tactical Flight Officer candidate. Provide students with an overview of the evolution of Airborne Law Enforcement including technical advances in available equipment for the Tactical Flight Officer. Expose the student to challenges of the Tactical Flight Officer position, crew resource management, risk management, emergency procedures and hazards. The student will receive information in handling pursuits, surveillance, mobile field force, Aerial Platform Tactics, K9 resources and suspect tactics in addition to Air Support to Regular Operations (ASTRO).

Performance Objectives:

- Overview of course
- Student understands fire watch
- Student understands benefit of Airborne Law Enforcement
- Student has an understanding of how to prepare for the Tactical Flight Officer position and the challenges of the unique position
- Student will understand responsibilities of a crew member, crew resource management and situational awareness
- Student will become familiar with hazards of flight including lasers, fire and emergency procedures
- Student will gain an understanding of microwave downlink, thermal imaging and other available technologies
- Student will become familiar with suspect tactics, pursuit policy and tactics, surveillance, K9 operations, Mobile Field Force procedures/policies and aerial platform tactics.

References: Instructors, facilitators and training supervisors shall ensure that current references are utilized

Day-1

I. ORIENTATION/OPENING REMARKS/SAFETY BRIEFING

A. Introduction

1. Instructors
2. Students

B. Overview of Course

1. Daily Schedule

II. Facility Tour

- A. Learning Activity-Tour of Heliport and equipment locations:
 - 1. Safety Equipment
 - 2. Designated Areas

III. Passenger Safety Brief / Fire Watch

- A. Fire-watch
 - 1. Situational Awareness
 - 2. The aircraft is in a safe condition for flight
 - 3. Discuss how to address problems on start-up
- B. Passenger Safety Briefing
 - 1. Release of Liability Form
 - 2. Review Air Support Passenger Safety Briefing Form¹
 - 3. Introduction of Crewmembers
 - 4. Flight Data
 - 5. Hearing Protection
 - 6. Sick Sack
 - 7. Operation of the aircraft
 - 8. Aircraft Seating
 - 9. No Smoking in or around aircraft
 - 10. Weapons and Firearms Safety
 - 11. How to safely enter the aircraft
 - 12. Internal Communication Systems (**ICS**)
 - 13. Emergency landing or hard landing
 - 14. Meeting Location upon emergency evacuation
 - 15. Location of the onboard Emergency Equipment

IV. History of Airborne Law Enforcement

- A. LEARNING ACTIVITY: A video² will be played that shows a historical summary of the evolution of Airborne Law Enforcement (**ALE**) and the advancements that have been made in the field of Air support operations.
 - 1. Discussion of Airborne Law Enforcement

¹ Air Support Passenger Safety Briefing Form

² This video (12 min) was created by Reserve Officer Glenn Grossman, Air Support Division (**ASD**) in July 2001 for and to be used by Los Angeles Police Department Air Support Division for training purposes. The video is property of the Los Angeles Police Department.

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2. Discussion of History
 3. Evolution of Air Support
 4. 1965 Watt's riots
- B. Air Support to Regular Operations (ASTRO)
1. In 1969 the ASTRO program
 2. Jet Propulsion Laboratory (JPL)
 3. Expansion of the Helicopter Section
 4. Helicopter Observers
 5. Special Flight Sections (SFS)
- C. Piper Technical Building
1. Largest rooftop heliport in the world
- D. Helicopter Observer's evolution to Tactical Flight Officer (TFO)
1. History
- E. Technological advances
1. Technological advancements
- F. Observer Position
1. Tactical Flight Officer (TFO)
- G. Tactical Flight Officer
1. Overview
- H. Closing
1. Tactical Flight Officer position is extremely demanding
 2. Complex assignments in Law Enforcement
 3. 60-year evolution of Air Support Division

V. Tactical Flight Officer (TFO) Loan Preparation

- A. Preparing for a TFO loan
1. Duties
- B. Map preparation
1. Area knowledge
- C. Logistical development skills
1. Landmark recognition
- D. TFO assignment
1. Support to various law enforcement activities
 2. Higher volume of law enforcement activity
 3. Field Officer Safety
 4. Community Safety

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- E. TFO workload management
 - 1. Responsibilities
 - 2. Cock-pit organization
- F. Learning activity: *Map book Set-up* – Students will learn the importance of a well-organized map. Students will then be given an example of an organized map page that is highlighted and asked to compare.
 - 1. Organized map
 - 2. Effective navigation
 - 3. Condensing map by removing un-necessary pages can make map more efficient
 - 4. Map book Orientation
 - 5. Page finder
 - 6. Airport map
 - 7. Abbreviation Page (list of abbreviations)
 - 8. Grid Coordinates
- G. Learning Activity: Students will be asked to look up location.
 - 1. Demonstrate
 - 2. Locate
 - 3. Debrief Activity
- H. Case Studies: Los Angeles Police Department
 - 1. How map skills and understanding of your City can impact safety, save lives and lead to arrests by aircrews.
- I. Radio Channel Orientation
 - 1. Review radio operations
- J. Skills
 - 1. Skills learned before entering the airborne environment.

VI. Tactical Flight Officer Ground School

- A. TFO Ground School overview
 - 1. Safety Equipment
 - 2. Situational Awareness
 - 3. Radio Set-ups and Usage
 - 4. Workload Management
 - 5. Map Discipline
 - 6. Navigation
 - 7. Topography

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8. Documentation
- B. Students will be shown a visual aid of the following safety equipment:
1. Nomex flight suit and gloves
 2. Authorized Flight Boots
 3. Helmet
 4. Skull cap
 5. Proper use will be demonstrated by an instructor
 6. Care and Instruction for equipment
 7. On duty gear
 8. Oleoresin Capsicum (OC) in the aircraft
- C. Situational awareness
1. Flight deck hazards
 2. Maintenance
 3. In flight emergencies
- D. Radio set up
1. Various frequencies.
 2. Indexing radios
- E. Workload management
1. Time management
- F. Map discipline
1. Update map
- G. Pictures
1. Documented on the knee board
 2. Daily Field Activity Reports (**DFAR**)
 3. Tactical
- H. Navigation
1. The value of landmarks
 2. The count technique
 3. The techniques referenced
 4. Proficiency in navigation
- I. Communications
1. Descriptive efficient communication
 2. Painting the picture
 3. Clear concise communication
 4. Tactical communication

Day-2

VII. Laser Threats

- A. Laser background
 - 1. Research
 - 2. Strikes on The Rise
- B. FAA Publication- "Laser Hazards in Navigable Airspace"³
 - 1. According to the FAA brochure, Laser Hazards in Navigable Airspace,
 - 2. Aircraft illuminations reports
- C. Laser Events
 - 1. Laser events can occur anywhere
- D. Light Amplification by Stimulated Emission of Radiation
 - 1. Lasers distance
- E. Laser Law
 - 1. California Penal Code- Section 247.5
- F. Federal Law
 - 1. 18 USC 32 -
- G. Federal Law
 - 1. 18 United States Code § 39 (a) - *The 'Securing Aircraft Cockpits Against Lasers Act of 2011'*. Sec. 39A. Aiming a laser pointer at an aircraft:
- H. Reporting
 - 1. Procedures
- I. Investigative Steps
 - 1. Detectives
- J. Prosecution
 - 1. Courts
- K. www.wickedlasers.com
 - 1. Website laser vendor
- L. Case Study: Dana Welch Incident - On May 21, 2008: Multiple Laser strikes in Orange County, 7 Miles North of John Wayne Airport (SNA)

VIII. Emergency Flight Training Discussion

- A. Purpose of training

³ FAA questionnaire that can be located at the following website-
http://www.faa.gov/pilots/safety/pilotsafetybrochures/media/laser_hazards_web.pdf

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1. Provide Basic information of procedures that may take place if the pilot becomes incapacitated
 2. Provide the TFO with Ground and Flight Training
 3. Exposing TFOs to this training prior to flight operations
- B. Basic Ground School for Flight Operations
1. Scope of Training overview
 2. Familiarize the TFO with the functions of the controls inside the helicopter
 3. Familiarize the TFO with basic communication procedures
- C. Aircraft Orientation (Discussion only)
1. Inspections
 2. APU/Battery Cart Procedure
 3. Fire Guard Responsibilities
 4. Limitations of Aircraft
 5. Ground handling of the aircraft
- D. Flight Training (Discussion only)
1. Orientation/Function of Controls
 2. Overview of skills that will be demonstrated during actual flight training
- E. Emergency Flight Training (Discussion only)
1. If the pilot becomes incapacitated

IX. Aviation Fire Threats

- A. Personnel Responsibilities
1. Responding to fire threats.
 2. Watch Commander
 3. Aircraft and Building Fires at the Heliport
 4. Tower Operator Duties
- B. Evacuation Plan
1. Personnel Staging Area
 2. Injured Personnel
 3. Triage Area
 4. Staggered Withdrawal
- C. Personnel Training (Classroom description of what training is received)
1. Safety Procedures
 2. Emergency training
 3. Fire/Rescue Drills

4. Importance of fire safety systems
- D. Hooper Heliport Fire Fighting System
 1. Systems explanation
- E. Classifications of Fires
 1. Four Classifications of
- F. Firefighting and Rescue
 1. Aircraft emergencies
 2. Fuel Spills
 3. Fuel Fires
 4. Uninvolved Fuel Tanks
 5. Turbine Engine Compartments
 6. Fuselage Fires Rescue

X. Risk Management

- A. Introduction
 1. Risk Management Definition
 2. Background of Risk Management
- B. Principles of Risk Management
 1. Discussion
- C. Risk Management Process
 1. Identify hazards
 2. Assess hazards to determine initial risk
 3. Make the Decision
 4. Implement controls
 5. Supervise the mission and evaluate the effectiveness of the controls.
- D. Elements of Risk
 1. Probability Categories:
 2. Severity Categories:
- E. Risk Matrix
 1. Risk Management Example

XI. Aircraft Marshalling

- A. Introduction
 1. Definition - Aircraft marshalling
 2. Scope and use of hand signals

- 3. Sources
- B. Fundamentals
 - 1. Understand what each signal means
 - 2. Interpretation of signal by the crew
 - 3. Hand off
- C. Hand Signals (
 - 1. Demonstrated by the instructor
- D. Safety Hazards
 - 1. During hand signals

XII. Suspects Tactics/Officer Tactics

- A. Perimeter Containment
 - 1. Tactics used by suspects to exit containment
 - 2. Coordination
- B. Officer's Tactics
 - 1. Foot Pursuits
 - 2. Perimeter established
 - 3. Perimeter containment
 - 4. Hiding locations for suspects
 - 5. Evaluate what resources are required
 - 6. Field Supervisor/Command Post (CP) responsibilities
 - 7. Thermal Equipment
 - 8. Basics of Communication

Day-3

XII. Suspect Tactics/Officer Tactics - Continued

Day 4

XIII. Microwave Downlink

- A. Air Support Division Microwave downlink program
 - 1. Pre-planned major events
 - 2. Spontaneous tactical events
 - 3. Situational awareness
- B. LAPD's microwave downlink system
 - 1. Aircraft mounted components
 - 2. Receive systems

C. Tactical Considerations

1. Education of Command Staff
2. Downlink demonstration
3. Benefits of using the downlink system
4. Lessons students learned about the downlink system

XIV. Crew Resource Management (CRM)

D. Crew Resource Management (CRM)

1. Mission performance
2. Improve safety.
3. Synergy (teamwork)
4. Background and Concept
5. CRM Objectives and Concepts
6. Training for CRM
7. Leadership
8. Barriers to CRM

B. LEARNING ACTIVITY: Classroom discussion of case studies

1. CRM factors
2. Wire Strike
3. Rooftop landing
4. Practicing CRM

XV. Thermal Imaging and FLIR Tactics

E. History

1. Concept of Electromagnetic Radiation

F. Electromagnetic Spectrum

1. Characteristics of Infra-Red Energy
2. Kirchoff's Law of EMR
3. Solar Loading
4. IR TACTICS

XVI. Pursuit Policy and Tactics

G. Pursuit Policy

H. Pursuit Tactics for Air Support

I. Discontinuing the Pursuit

Day-5

XVII. Surveillance

- J. Support missions
 - 1. Investigations
- K. Equipment
 - 1. HD Camera
- L. Aircraft position
 - 1. Flight Profile

XVIII. Mobile Field Force

- M. Mobile Field Force Operations
 - 1. Mobile Field Force Concept
 - 2. Squad Formations
- N. Immediate Action Rapid Deployment (IARD)
 - 1. Civil Unrest

XIX. K9 Procedures

- O. Guidelines for K-9 searches
 - 1. K-9 Search Announcement
 - 2. Search by outside agency K-9 teams
 - 3. Perimeter Response by K-9
 - 4. The K-9 search
 - 5. Transportation of K-9 personnel and equipment in Department aircraft

XX. Case Law and Courtroom Testimony

- A. Department policies and procedures
 - 1. Manuals
- B. Equipment utilized
 - 1. Approved equipment
- C. Benches are attached to the helicopter
 - 1. Demonstrate

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XXI. Conclusion/Class Review/ POST Test

P. Questions/Answer Session

Q. Test

R. Closing Remarks

1. Certificates