

## **Attachment 11**

**to Organizational Factors Group Chairman's Factual Report**

**CHI04MA182**

CHAPTER 2

INITIAL NEW HIRE - GROUND TRAINING

2.1 Purpose: This section provides a standardized training program for newly hired crew members to ensure the knowledge essential to the safe and efficient conduct of his/her duties as a pilot in command for Med-Trans Corporation.

2.2 Training Objective: The pilot will be able to successfully demonstrate his/her knowledge of the regulations, policies and procedures, as applicable to FAR 135 operations, by correctly answering 70 percent of the questions on a written or oral examination.

2.3 Training Syllabus: The syllabus for the Initial New Hire - Ground Training prescribes the minimum time coverage, in hours, considered necessary to achieve the desired level of proficiency.

A.	FAR 1	:30
B.	FAR 61	1:00
C.	FAR 91	1:30
D.	FAR 135	1:30
E.	Med-Trans Operations Manual	2:00
F.	Navigation	2:00
G.	Meteorology	2:00
H.	ATC Procedures	2:00
I.	Emergency Training	2:00
J.	Hazardous Materials	<u>1:00</u>
		16.00

NOTE: See Chapter 3 Initial New Hire Aircraft Ground Training for additional hours of ground training.

2.4 Ground Training Facilities: Med-Trans Corporation will provide classrooms and materials as required to complete the training outlined in this chapter.

2.5 Training Devices: The following training devices will be used in the presentation of the material contained in this training phase.

- A. FAR Library/AC Library (as required for subjects taught)
- B. CFR 49
- C. Marker Board
- D. Misc

CHAPTER 3

3.0 Initial/New Hire Aircraft Ground Training - Bell 407,206 L-1/3

3.1 **Purpose:** This section provides a standardized program for training Med-Trans Corporation pilots to qualify as pilot in command on the Bell 407,206 L-1/L-3 helicopter. This training will ensure the knowledge essential to the safe and efficient conduct of his/her duties as a pilot in command.

3.2 **Training Objective:** The pilot will be able to successfully demonstrate his/her knowledge of the flight manual, policies, procedures and equipment as applicable to aircraft operations answering 70 percent of the questions on a written or oral test.

3.3 **Training Syllabus:** The syllabus for the Initial/New Hire Ground Training - Bell 407,206 L-1/L-3 prescribes the minimum time coverage, in hours, considered necessary to achieve the desired level of proficiency.

A.	Description	:30
B.	Limitations	1:00
C.	Normal Procedures	1:00
D.	Emergency Procedures	1:00
E.	Malfunction Procedures	1:00
F.	Performance Data	:30
G.	Weight and Balance	:45
H.	Pilots Checklist	:30
I.	Fuel and Oil	:30
J.	Supplements	1:00
K.	Avionics	:30
L.	Systems Review	1:00
		<u>9:15</u>

(See Chapter 2 for additional hours)

3.4 **Training Facilities:** Adequate training facilities exist at Med-Trans's corporate headquarters located at the Tucson International Airport, Tucson, AZ and at its satellite bases.

3.5 **Training Devices:** Necessary training devices will be furnished to facilitate ground training subject listed in Chapter 2, Paragraph 2.5 of this manual.

CHAPTER 12

12.0 Initial/New Hire Flight Training Bell 407,206L-1/L-3

12.1 **Purpose:** This section provides a standardized program for training Med-Trans Corporation pilots to qualify as pilot in command on the Bell 407,206L-1/L-3 helicopter. This training will ensure the knowledge essential to the safe and efficient conduct of his/her duties as a pilot in command.

12.2 **Training Objective:** The crew member will be able to successfully demonstrate his/her ability to perform the following:

- A. Execute procedures and maneuvers within the aircraft's performance capabilities and limitations, including use of the aircraft systems.
- B. Execute emergency procedures and maneuvers appropriate to the aircraft.
- C. Pilot the aircraft with smoothness and accuracy.
- D. Execute judgement/decision making.
- E. Apply his/her aeronautical knowledge.
- F. Show that he/she is the master of the aircraft, with the successful outcome of the procedure or maneuver never in doubt.
- G. Execute his/her assigned crew member duties in a professional manner within the guidelines set forth in the appropriate FAR's and the Operations Specifications Manual.

12.3 **Training Syllabus:** The syllabus for the Initial/New Hire Flight Training - Bell 407,206L-1/L-3 prescribes the minimum time coverage, in hours, considered necessary to achieve the desired level of proficiency.

**Note:** Ground training hours shown in this section are approximate and may vary. They are not required or included in the sum of hours required to meet threshold minimums for this training document.

	Ground	Flight
A. Orientation	1:30	-0-
B. Period #1	2:15	1:00
C. Period #2	:30	1:00
D. Period #3	1:30	1:10
E. Period #4	4:00	-0-
F. Period #5	1:40	1:30
G. Period #6	(as required)	(as required)
Total	10:40	4:40

12.4 **Training Facilities:** Flight training will be conducted at the Tucson International Airport and at other locations as required to complete the training.

12.5 **Training Aircraft:** Med-Trans Corporation will provide a training aircraft from its operational fleet, as scheduling permits, to complete the training as outlined in this chapter.

12.6 **Eligibility:** In order to be eligible to enter the Initial/New Hire Flight Training Bell 407,206L-1/L-3 an applicant must have successfully completed the Initial New Hire Ground Training as outlined in Chapter 3 of this manual.

#### 12.7 Flight Training Curriculum:

- A. **Orientation:** The flight instructor/check airman will conduct an informal ground school covering the following subjects:
1. A brief discussion of the flight training procedures and maneuvers.
  2. Local area orientation which must include any unpublished traffic patterns, radio frequencies, no flight areas and reporting points. A map showing the areas used for training will be discussed to preclude later confusion during the in flight training.
  3. Discussion of the approved rotorcraft flight manual of the aircraft being used for training.

4. Discussion of the aircraft logbook which must include the purposes for each block section, maintenance carry over discrepancy sheet and computer records read out.

12.8 Period #1:

- A. Preflight Inspection: (Ground :30)
  1. Instruction will be given in preflight inspection as outlines in the Flight Manual.
- B. Cockpit Orientation and Inspection: (Ground :15)
  1. The trainee will be given enough instruction to be able to readily locate each instrument circuit breaker and switch.
  2. The trainee should be aware of the provisions of FAR 135.100.
- C. Engine Starting and Warmup:
  1. The aircraft checklist must be used. (BEFORE STARTING ENGINE)
  2. The trainee should be able to quote the engine start limits from memory.
- D. Hovering Coordination Exercises:
  1. The aircraft checklist must be used. (BEFORE TAKEOFF)
    - a. Vertical takeoff to a hover  
(1) As described in AC61-13 p. 75.
    - b. Hovering turns  
(1) As described in AC61-13 p. 76.
    - c. Hovering forward flight/Air Taxi  
(1) As described in AC61-13 p. 77.

d. Landing from a hover  
(1) As described in AC61-13 p. 88.

e. Hovering autorotations  
(1) As described in AC61-13 p. 93.

E. Basic Airwork:

1. Normal takeoff from a hover.

a. The aircraft checklist must be used. (BEFORE TAKEOFF)

b. As described in AC61-13 p. 80.

2. Normal climbs

a. As described in AC61-13 p. 83.

3. Straight and level flight

a. The aircraft checklist must be used. (CRUISE)

b. As described in AC61-13 p. 82.

4. Normal descents

a. As described in AC61-13 p. 84.

5. Normal Approaches to a hover

a. The aircraft checklist must be used. (BEFORE LANDING)

b. As described in AC61-13 p. 85.

c. Instruction will be given on the proper use of the float arming system during this training. (If installed on base assigned aircraft)

F. Engine Shutdown:

1. The aircraft checklist must be used. (STOPPING ENGINES)

2. Special care will be exercised to physically hold the throttle against the off stop until the gas produces RPM is at zero and to monitor the turbine outlet temperature during engine coastdown.

G. Postflight Inspection: (Ground :30)

1. Secure main rotor blades.
2. Walk around inspection.

H. Tail Rotor Failures:

1. Due to the side slip characteristics, a tail rotor failure or control failure will not be simulated. The flight instructor will ask for a brief description of the procedures and the trainee must be able to explain those procedures as outlined in the approved rotorcraft flight manual.

I. Post Review - Period #1: (Ground 1:00)

1. Discussion on procedures, maneuvers, execution of the procedures and maneuvers accomplished during Period #1.

12.9 Period #2: Any procedure or maneuver required to complete Period #2, that is outlined in Period #1, must be accomplished as described in the Period #1 curriculum.

A. Review: (Ground :15)

1. The flight instructor will conduct a review of the procedures and maneuvers accomplished in Period #1 and discuss the activities to be accomplished in Period #2.

B. Quick Stops/Rapid Decelerations:

1. As described in AC61-13 p. 96.

C. Power Failures at Altitude:

1. Instruction will be given as required to ensure the trainee has, or acquires, the capabilities to properly execute the procedures required for a power failure at altitude.



2. Instruction will be given on the proper use of the available communications equipment to give the proper distress calls.

3. Instruction will be given on the proper rebriefing of passengers to prepare for emergency landing (according to the terrain) due to the loss of engine power.

D. Power Recoveries:

1. As described in AC61-13 p. 96.

E. Autorotations:

1. As described in AC61-13 p. 91.

2. Autorotations will be made with power recoveries.

F. Hydraulic System Failure:

1. As described in the approved rotorcraft flight manual.

2. The trainee will receive enough instruction as necessary to ensure he/she has the ability to effectively initiate the hydraulic system failure emergency procedures and then perform a run-on landing. As described in the Approved Rotorcraft Flight Manual and AC 61-13.

G. Slope Operations:

1. As described in AC61-13 p. 97.

2. Additional instruction will be given to ensure the trainee is aware of dynamic rollover causes and avoidance of those causes.

H. Post Review - Period #2: (Ground :15)

1. Discussion on procedures, maneuvers and execution of the procedures and maneuvers accomplished during Period #2.

12.10 Period #3: Any procedure or maneuver required to complete Period #3 that is outlined in an earlier period must be accomplished as described in the earlier period curriculum.

A. Review: (Ground :30)

1. The flight instructor/check airman will conduct a review of the procedures and maneuvers accomplished in Period #2 and discuss the activities to be accomplished in Period #3.
2. The flight instructor will give the trainee minimal information (to simulate a customer required flight) to plan a flight with at least two legs. This information will include the simulated load to be carried and the landing locations.
3. One of the landing sites must have refueling facilities.
4. Loran C/ GPS navigation equipment will not be used on the outbound leg of the flight. On the inbound leg the Loran C/ GPS equipment may be used but if used it will be turned off by the flight instructor at the midpoint of the leg to demonstrate that navigation is not to be predicated on the use of Loran C/ GPS equipment.

B. Cross Country Flight:

1. As described in Review: Period #3.
2. During the course of this flight the instructor will have the trainee demonstrate the ability to navigate and control the aircraft with reference to instruments only and recover from unusual attitudes by reference to instruments only.

C. Hospital/Area Operations:

1. Takeoffs and Approaches:
  - a. As described in AC61-13 p. 80, AC61-13 p. 84, taking into consideration the height above the surface and the height/velocity curve as depicted in the approved rotorcraft flight

- a.(cont) manual. Instruction will be given in the proper techniques to avoid operations outside the height/velocity curve during approach and takeoff. (Where possible)
- b. Instruction will be given in the avoidance of obstruction on or near the heliports.
- c. Instruction will be given in the proper procedures for day EMS scene responses. This training will include area selection, hazards and judgement.

D. Refueling: (Ground :30)

1. During the course of this training the aircraft will be shutdown at a refueling facility used during normal operations.
2. Instruction will be given in the proper use of available fire fighting equipment and the proper notification process to be used in case of fuel spillage or leaks. (The available fire fighting equipment may vary between heliport structures. At all times, any noted leaks and/or spillage should immediately be brought to the attention of the facility supervisor).

E. Fire in Flight:

1. During the inbound leg of the cross country, or after reaching land if over water, the flight instructor will give a simulated engine fire in flight. Proper simulated action, according to the approved rotorcraft flight manual, must be initiated by the trainee for the engine fire in flight and for smoke control.
2. During the inbound leg of the cross country the instructor will give the trainee a simulated battery hot indication (Nicad Battery). Proper action, according to the approved rotorcraft flight manual, must be initiated by the trainee.

3. After proper action is taken in respect to the battery hot indication the flight instructor will give a simulated electrical fire in flight. The trainee must take proper actions to isolate the electrical system and control smoke.

F. Post Review - Period #3: (Ground :30)

1. Discussion of procedures, maneuvers and execution of the procedures and maneuvers accomplished during Period #3.

12.11 Period #4:

A. Differences Bell 407,206L-1/L-3: (Ground 4:00)

1. The flight instructor will review the differences between the 407, 206 L-1 & 206 L-3.

12.12 Period #5:

A. Night Flight Operations: (Ground 1:40)

The night training requirements will be completed during this training period.

12.13 Period #6:

A. Oral Examination:

1. Conducted by a company check airman or duly authorized FAA inspector.

B. Flight Test:

1. Conducted by a company check airman or duly authorized FAA inspector.

12.14 **Qualifications:** After satisfactory completion of Period #6, the crew member will be qualified to conduct operations under FAR 135 as pilot in command for Med-Trans Corporation in the Bell 407,206 L-1/L-3 helicopter.

CHAPTER 21

21.0 Recurrent Ground Training:

21.1 Ground Training Subjects: The following ground training subjects will be presented in a classroom environment fully utilizing the training devices listed in section 2.5 of chapter 2. (Minimum of four (4) hours of ground instruction)

A. FAR 1 - Definitions and Abbreviations:

1. 1.1 - General Definitions
2. 1.2 - Abbreviations and Symbols

B. FAR 61 - Certification: Pilots and Flight Instructors:

1. 61.3- Requirement for certificates, rating and authorization
2. 61.15 - Offenses involving Alcohol or Drugs
3. 61.23 - Duration of Medical Certificates
4. 61.29 - Replacement of lost or destroyed certificate
5. 61.43 - Flight tests: General Procedures
6. 61.51 - Pilot Logbooks
7. 61.53 - Operations during medical deficiency
8. 61.57 - Recent flight experience: Pilot in Command
9. 61.60 - Change of address
10. 61.125 - Aeronautical knowledge
11. 61.127 - Flight proficiency

C. FAR 91 - General Operating Flight Rules:

1. 91.3 - Responsibility and authority of the pilot in command
2. 91.7 - Civil aircraft airworthiness
3. 91.9 - Civil aircraft flight manual, marking and placard requirements
4. 91.13 - Careless or reckless operation
5. 91.15 - Dropping objects
6. 91.17 - Alcohol or drugs
7. 91.19 - Carriage of narcotic drugs; marijuana and depressant or stimulant drugs or substances
8. 91.103 - Preflight action

21.3 **Recurrent Flight Training:** Recurrent Flight Training may be completed during the Recurrent Flight Test, as defined in this chapter of this manual. All flight training will be completed as described in flight test requirements paragraph 21.6. Minimum of two (2) flight hours.

21.4 **Line/Route Checks - FAR 135.299:** This section prescribes the requirements for the proper completion of the Line/Route check required per FAR 135.299. The check airman/ instructor shall ensure the pilot in command satisfactorily performs the following:

A. For VFR Pilots in Command:

1. Fly at least one route segment, to include at least one landing at a representative airport. The route segment (can be a representative one) and if possible should include entry into an ARSA/TCA. If an ARSA/TCA is not available, communications with the ATC system is still required.

21.5 **Emergency Training Requirements:** This section prescribes the emergency instruction and demonstration to be completed before each flight test contained in this manual, except instrument proficiency. Each check airman/instructor conducting the required checks will ensure the airman can explain the following as appropriate to his/her crew member station:

(Instruction will be given as necessary to ensure full understanding of all requirements. As appropriate to the type of operation/area of operations).

- A. Location of the first aid kit.
- B. Use of the contents in the first aid kit.
- C. Emergency procedures and assignments.
  1. Ditching and evacuation.
  2. Fire in flight.
  3. Fire on the ground.
  4. Smoke control, with emphasis on electrical equipment and related circuit breakers found in the cabin area.

5. Illness, injury or other abnormal situations involving passengers or crew members.
6. Hijacking.

Before each flight, the check airman/ instructor must demonstrate the following: (As appropriate to the type of operation/area of operations.)

1. Use of all emergency exits.
2. The ability to coordinate emergency evacuation procedures between pilot and passenger/s. (The check airman will act as passenger).

After the airman has successfully demonstrated the items listed above, the check airman will review with the pilot company accident/incident records. This review will cover all company accidents/major incidents with emphasis on the particular model aircraft being used in the check. Available industry records should be used to augment this review.

#### 21.6 Flight Test Requirements - Recurrent Proficiency/Competency

**Check:** This section prescribes the requirements for flight test evaluations to be reviewed during the recurrent training phase. This evaluation will ensure the crew member is currently proficient and adequately trained for the aircraft and crew member position in which he/she serves.

Each pilot taking the recurrent flight test must show that standard of competency required for initial certification in the aircraft in which the recurrent flight test is being administered.

Whenever possible, every other flight test required under FAR 135.293 (b) will be completed during the hours of darkness.

The evaluation will ensure the crew member can satisfactorily perform the following:

- A. Execute procedures and maneuvers within the aircraft's performance capabilities and limitations, including use of the aircraft system.
- B. Execute emergency procedures and maneuvers appropriate to the aircraft.

REV 0

- C. Pilot the aircraft with smoothness and accuracy.
- D. Execute judgement.
- E. Apply his/her aeronautical knowledge.
- F. Show that he/she is the master of the aircraft with the successful outcome of the procedure or maneuver never in doubt.
- G. Execute his/her assigned crew member duties in a professional manner within the guidelines set forth in the appropriate FAR's and the Operations Specification Manual.
- H. Demonstrate the following during the flight test evaluation: (ORAL)
  - 1. Knowledge of required certificates, documents and equipment.
  - 2. Ability to obtain weather information.
  - 3. Knowledge and ability to operate aircraft systems.
  - 4. Ability to determine performance and limitations.
  - 5. Plan a cross-country flight.
  - 6. Knowledge of requirements for night flight operations.
  - 7. Knowledge and ability to use on board emergency equipment and exits.
  - 8. Knowledge of ATC light signals.
  - 9. Knowledge of airport and heliport markings and lighting.
  - 10. Knowledge and ability to perform emergency procedures including emergency-evacuation duties.
  - 11. Knowledge and ability to perform weight and balance calculations.

(Skill Demonstration - VFR)(As appropriate to the type of operations/area of operations.) REV 0



12. Visual Inspections.
13. Cockpit Management.
14. Use of Checklists.
15. Engine Starting and Shutdown.
16. Vertical Takeoff.
17. Hover Taxi.
18. Vertical Landing.
19. Normal and crosswind departures.
20. Traffic pattern operations.
21. Normal and crosswind approaches.
22. Straight and level flight, climbs, turns and descents.
23. Run on landing (low power).
24. Slope operations (dynamic rollover).
25. Rapid decelerations.
26. Autorotative descents.
27. Power failure at a hover. (Except AS-355)
28. Power failure at altitude.
29. Systems and equipment malfunctions.
30. Anti-torque system failure (simulated).
31. Settling with power.
32. Ground resonance (SA365-AS355-AI109) (as appropriate).
33. Use of navigation equipment.
34. Maximum performance maneuvers.
35. Partial panel (hooded).

36. Recovery from unusual flight attitudes.

37. Confined areas.

21.7 **Qualifications:** After satisfactory completion of the Proficiency/Competency Check, as appropriate to the model aircraft, the pilot will be eligible to continue conducting operations under FAR 135, in the appropriate model aircraft and crew member position, for a period of twelve (12) months. Upon completion of this training the due date for the next recurrent training will be twelve (12) months from the completion month. The provisions specified in this manual explain due month completion requirements.

21.8 **Unsatisfactory Flight Check:** This section prescribes the actions to be taken in the event an airman does not meet the standards appropriate to the flight check administered. If an airman fails any required maneuver, or is found deficient in knowledge during the oral requirements, the check airman may give additional instruction during the course of the oral examination and/or check flight. The airman should receive enough instruction to ensure proficiency/competency in all required maneuvers and/or oral requirements.

If the airman is unable to demonstrate satisfactory performance during the course of the flight check, even after additional instruction, the check airman will schedule training sessions that are structured to bring the airman's competency/proficiency to an acceptable level. After the completion of these training sessions the airman will be scheduled for another check flight.

Complete the Med-Trans Corporation Airman Competency/Proficiency check form noting the areas found unsatisfactory.

On the re-check the airman need only demonstrate proficiency/competency on those item(s) that were unsatisfactory on the original disqualifying check flight, but the check flight need not be limited to the checking the previous unsatisfactory item(s).

Only after satisfactory completion of the flight check will the airman be returned to flight crew member duties conducted under FAR 135.