

Initial En Route Qualification Training

Lesson 06
Recording Clearances and Control
Information

Course 50148001

LESSON PLAN DATA SHEET

COURSE NAME: INITIAL EN ROUTE QUALIFICATION TRAINING

COURSE NUMBER: 50148001

LESSON TITLE: RECORDING CLEARANCES AND CONTROL INFORMATION

DURATION: 6+00 HOURS

DATE REVISED: 2022-02 **VERSION**: V.2022-02

REFERENCE(S): FAA ORDERS JO 7110.65, AIR TRAFFIC CONTROL, AND JO 7340.2,

CONTRACTIONS

HANDOUT(S): stripmrk.f2k – STRIPMARKING EXERCISE STRIPS

EXERCISE(S)/ ACTIVITY 1: IDENTIFYING ABBREVIATIONS

ACTIVITY(S): ACTIVITY 2: IDENTIFYING CONTROL INFORMATION SYMBOLS

EXERCISE 1: RECORDING CLEARANCES AND CONTROL

INFORMATION

EXERCISE 2: STRIPMARKING

END-OF-LESSON

TEST:

YES

PERFORMANCE

TEST:

NONE

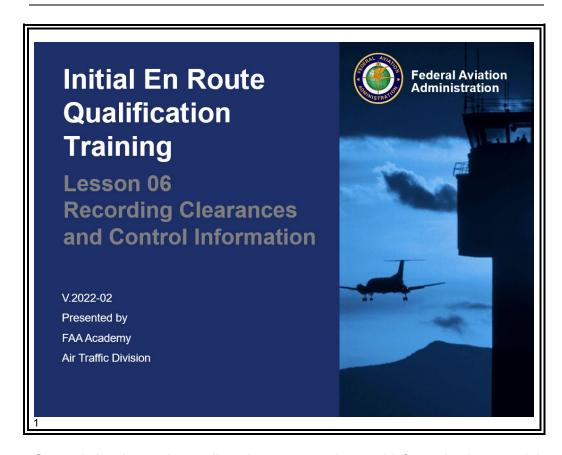
MATERIALS: NONE

OTHER PERTINENT INFORMATION:

DISCLAIMER

Air Traffic training materials are provided by the Federal Aviation Administration Office of Technical Training. The training materials are subject to revision, amendment and/or corrections. The materials are to be used for the intended purpose only and are not intended for distribution beyond the purpose of training. Updates (if required) shall be provided through a formal distribution process. Unsolicited updates will not be processed.

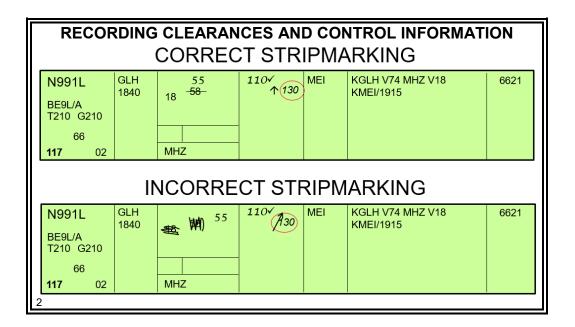
INTRODUCTION



Correctly issuing and recording clearances and control information is essential to the safe and expeditious flow of traffic in a nonradar environment. Failure to properly record clearance information in a timely manner can lead to subsequent clearances which can result in a loss of separation or an aircraft accident. In this lesson, you will build on your knowledge of flight progress strips by learning control symbology and recording information in the correct spaces.

50148001-LP06 / V.2022-02 1

INTRODUCTION (Continued)



Purpose

The material in this lesson will demonstrate correct stripmarking, which will help you maintain the current status of each aircraft in your sector.

INTRODUCTION (Continued)

Lesson Objectives

LESSON OBJECTIVES

- On an End-of-Lesson Test, and in accordance with FAA Order JO 7110.65 and JO 7340.2, you will identify:
 - Select stripmarking symbology
 - Select stripmarking abbreviations
 - Procedures for recording clearance and control information on flight strips

•

CONTROL SYMBOLOGY

General Information JO 7110.65,

JO 7110.65, pars. 2-3-9, 2-3-10

- Use authorized symbols or abbreviations for recording:
 - Clearances
 - Reports
 - Instructions
- You may use:
 - Plain language markings when necessary for clarification
 - · Locally approved identifiers/abbreviations within your facility
- Use appropriate clearance symbol followed by a dash (-) and other information to show status of aircraft.

NOTE: The upcoming sections give more detailed information about the various abbreviations and symbols for use when marking strips.

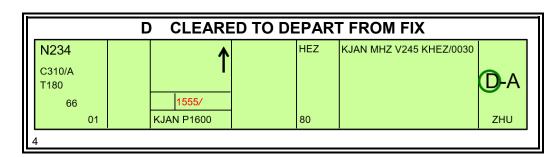
Clearance Abbreviations

JO 7110.65, par. 2-3-10, table 2-3-11

- O Clearance abbreviations include:
 - D Cleared to Depart from Fix
 - A Cleared to Destination Airport
 - F Cleared to Fix
 - H Cleared to Hold and Instructions Issued
 - V Cleared Over Fix
 - Z Tower Jurisdiction
 - PD Cleared to Climb/Descend at Pilot's Discretion

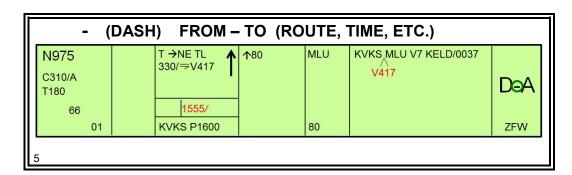
Cleared to Depart from Fix JO 7110.65,

par. 2-3-10



- Used in space 28 on originating IFR clearance strip only
 - Departing from airport
 - Airfile

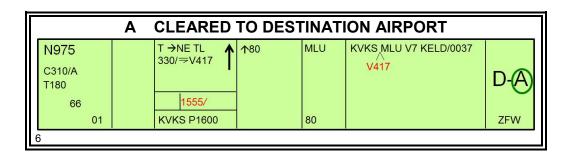
Dash From – ToJO 7110.65,
par. 2-3-10



⊙ Follows "D" in space 28

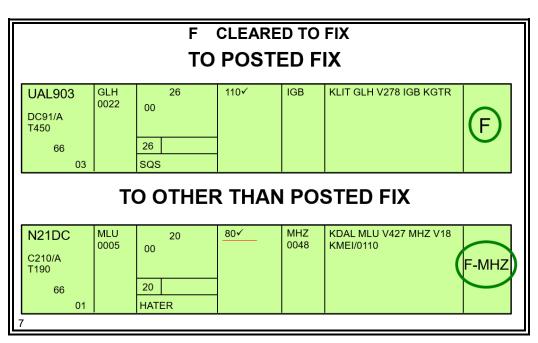
(Continued)

Cleared to Destination Airport JO 7110.65, par. 2-3-10



⊙ Follows "- (Dash)" in space 28

Cleared to Fix JO 7110.65, par. 2-3-10

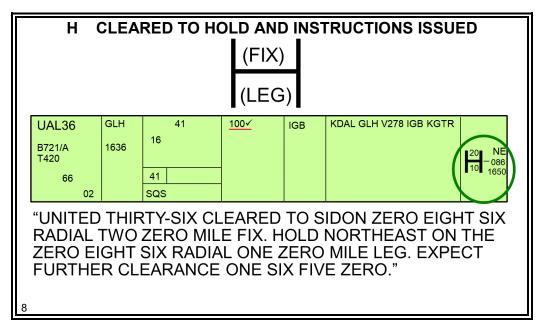


- Used in space 28
- \odot "F (fix)" is used when clearance limit is other than the posted fix.
- Fix need **not** be recorded if:
 - The aircraft is cleared to the posted fix
 - · Holding instructions have been issued and recorded

(Continued)

Cleared to Hold and Instructions Issued JO 7110.65, par. 2-3-10, 4-6-1, 4-6-4



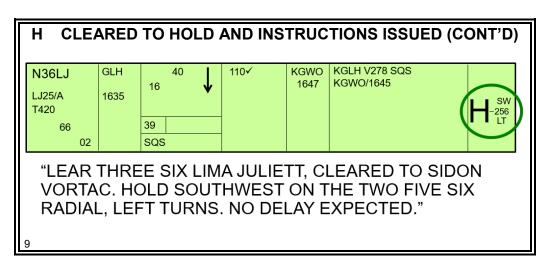


- Used in space 28
- Holding instructions **must** include:
 - Direction from fix
 - Holding fix, if not posted fix
 - Upper portion of "H" indicates distance from the station to the fix
 - Radial, course, azimuth, or route on which aircraft will hold
 - · Leg length, if other than standard
 - Indicated in lower portion of H and shown in:
 - → Minutes, or
 - → Miles if DME is used
 - Direction of turns
- Additional information, such as holding airspeed or Expect Further Clearance (EFC) time, is sometimes included in holding instructions.

(Continued)

Cleared to Hold and Instructions Issued (Cont'd) JO 7110.65, par. 2-3-10 4-6-1, 4-6-4





(Continued)

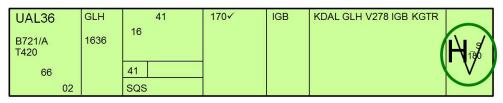
Cleared Over Fix

JO 7110.65, par. 2-3-10



V CLEARED OVER FIX

Cancels previously issued clearance limit and holding instructions.



"UNITED THIRTY-SIX, CLEARED TO GOLDEN TRIANGLE AIRPORT VIA VICTOR TWO SEVENTY-EIGHT BIGBEE DIRECT."

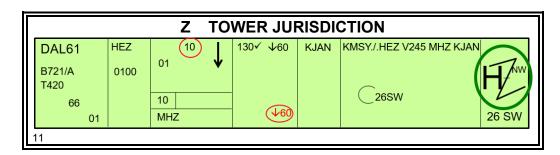
OR

"UNITED THIRTY-SIX, CLEARED TO GOLDEN TRIANGLE AIRPORT VIA LAST ROUTING CLEARED."

- Used in space 28 to mark over:
 - F Clearance limit
 - H Holding instructions

(Continued)

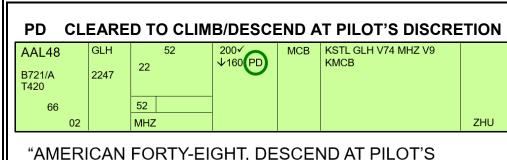
Tower Jurisdiction JO 7110.65, par. 2-3-10



O Used in space 28

Cleared to Climb/ Descend at Pilot's Discretion JO 7110.65, par. 2-3-10





DISCRETION, MAINTAIN ONE SIX THOUSAND."

Used in space 20

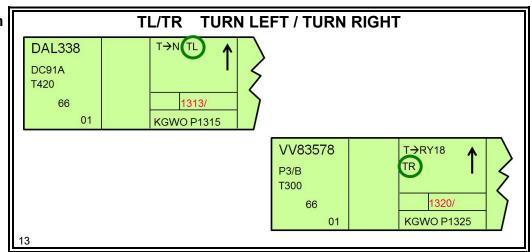
Miscellaneous Abbreviations

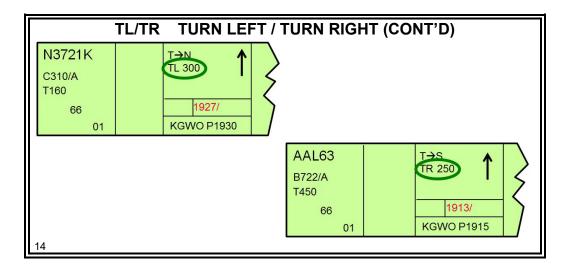
JO 7110.65, par. 2-3-10; JO 7340.2

- Miscellaneous abbreviations include:
 - TL/TR Turn Left/Turn Right
 - HFR Hold for Release
 - RLS Release
 - SYD Release Subject Your Discretion
 - RR/RL/RP/RX Request for Altitude/Fix Reports

(Continued)

Turn Left/Turn RightJO 7110.65,
par. 2-3-10
TBL2-3-12

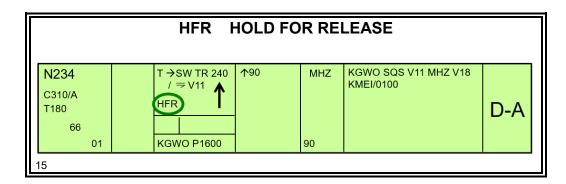




- Used in space 15 with magnetic heading to be flown
 - 001 through 360

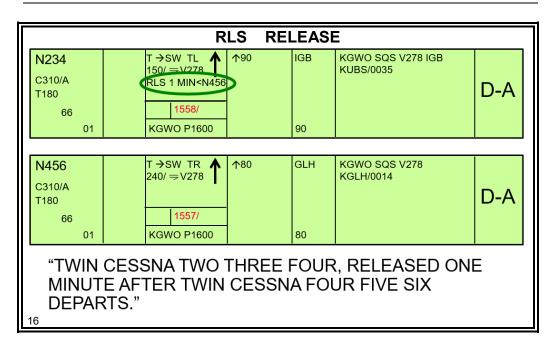
(Continued)

Hold For Release JO 7110.65, par. 4-3-4; JO 7340.2



- Used in space 15 in conjunction with departure clearances
- Issued to FDU or tower

Release JO 7340.2

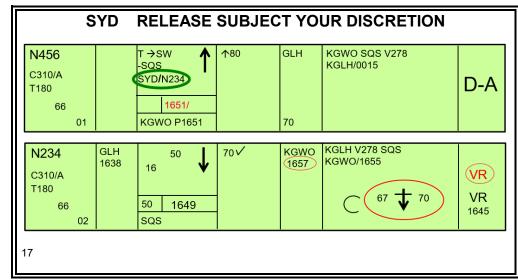




- Used in space 15 in conjunction with departure clearance
 - When aircraft can be released for departure
- Issued to tower

(Continued)

Release Subject Your Discretion JO 7340.2



→ Phraseology Example

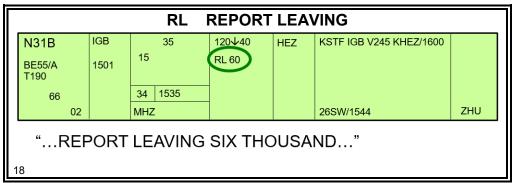
- Used in space 15
- Issued to tower when using visual separation

(Continued)

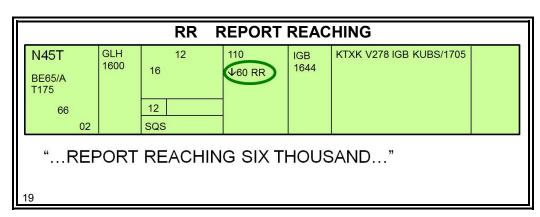
Request for Altitude/Fix Reports JO 7110.65,

JO 7110.65, par. 2-3-10; JO 7340.2





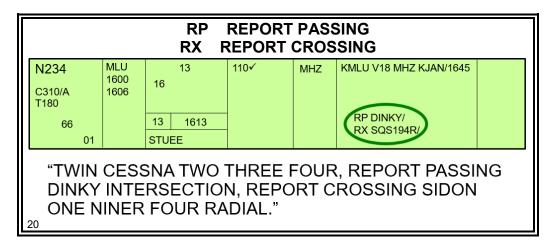




- Used in space 20 with altitude reports
 - RL Report Leaving
 - RR Report Reaching

(Continued)

Request for Altitude/Fix Reports (Cont'd) JO 7110.65, par. 2-3-10; JO 7340.2



- Used in space 26 with fix, radial, or DME reports
 - RP Report Passing
 - RX Report Crossing
- When the report is received from the pilot, the current time is recorded after the slant (/) in four digits.

ACTIVITY 1: IDENTIFYING ABBREVIATIONS

Activity 1

IDENTIFYING ABBREVIATIONS ACTIVITY



Purpose: to practice identifying and using the clearance and miscellaneous abbreviations used in stripmarking

21

Description

This eLearning activity will provide you with a chance to practice identifying the clearance and miscellaneous abbreviations used in stripmarking. You will answer a total of 21 questions by selecting applicable abbreviations from the image displayed.

Directions

Access the IET eLearning menu. Select **Lesson 6 – Recording Clearances** and **Control Information**. Click on the title to launch the **Identifying Abbreviations** activity.

Turn on the Cap Lock feature on your keyboard.

Time Allotted

10 minutes

CONTROL INFORMATION SYMBOLS

Control Information Symbols JO 7110.65, par. 2-3-10 • Control information symbols include:

T → Depart (Direction, if Specified)

/ Until

Join or Intercept Airway/Jet Route/Track or Course

↑ ↓ Climb/Descend and Maintain Arrows

X Cross

↑or**↓** At or Above/Below

— (Dash) From-To

V < (time) Clearance Void if Aircraft **not** off Ground by (Time)

() Alternate Instructions

C Communications Transfer

> < Before and After

→ Cruise

((alt)) Aircraft Reported at Other than Assigned Altitude

<u>alt</u> Inappropriate Altitude for Direction of Flight (IAFDOF)

(underline in red)

✓ Aircraft Reported at Assigned Altitude

E (red) Emergency

W (red) Warning

Control Information Symbols (Cont'd) JO 7110.65, par. 2-3-10 (red) Information Revised/Information Forwarded

Pilot Canceled Flight Plan

(alt) B (alt) Block Altitude Assignment

R (alt) Requested Altitude

R Radar Contact

Radar Service Terminated

Radar Contact Lost

Radar Handoff

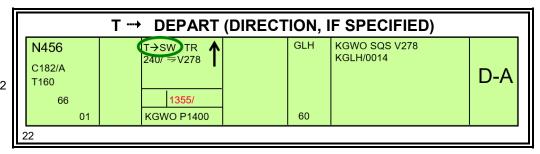
RV Radar Vector

Pilot Resumed Own Navigation

P Point Out Initiated

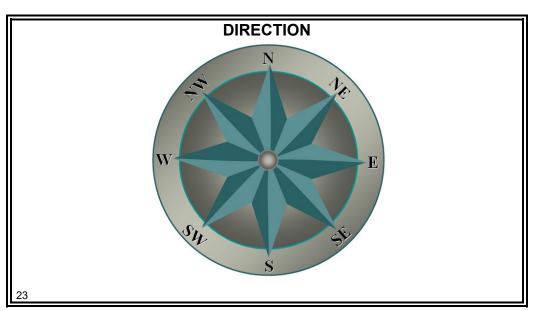
Enter Control Area

Depart (Direction, if Specified) JO 7110.65, pars. 2-3-10, 4-3-2



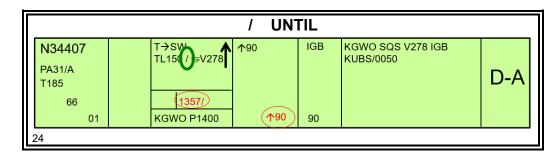
- Used **only** at airports within Class D or E surface areas
- Used in space 15 on departure strip only

DirectionJO 7110.65,
pars. 2-3-10, 4-3-2



- Direction of departure is specified:
 - To provide separation
 - Using eight compass points

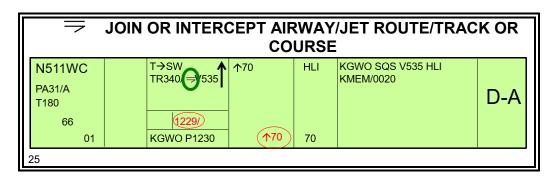
Until JO 7110.65, par. 2-3-10



O Used:

- In any space
- Usually with (time)/(fix)
- As separator between route of flight and ETA/ETE for general aviation aircraft

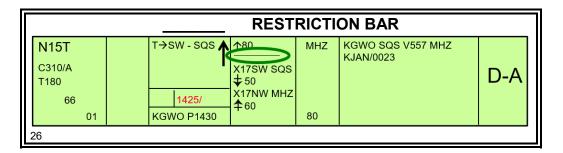
Join or Intercept Airway/Jet Route/Track or Course JO 7110.65, par. 2-3-10



Used in spaces 15 or 25

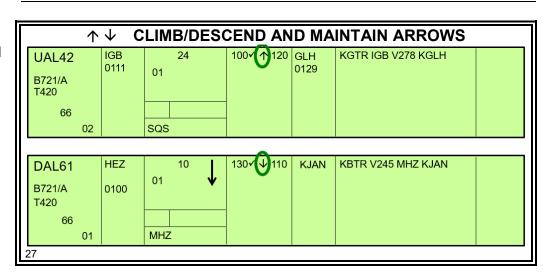
50148001-LP06 / V.2022-02

Restriction Bar JO 7110.65, par. 2-3-10



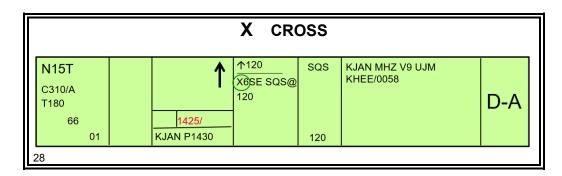
- Used in space 20 to separate altitude assignments from altitude restrictions
 - · Restrictions on how to get to assigned altitude

Climb/
Descend and
Maintain
Arrows
JO 7110.65,
par. 2-3-10



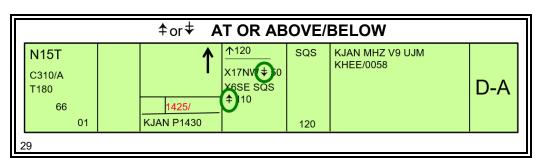
Used in space 20

Cross JO 7110.65, par. 2-3-10



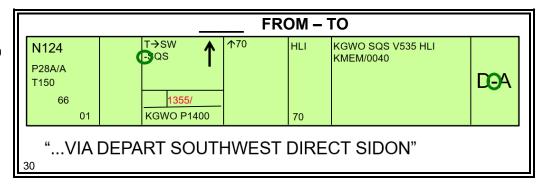
- Used in space 20 to cross a fix/radial/airway
 - Followed by a restriction

At or Above/Below JO 7110.65, par. 2-3-10



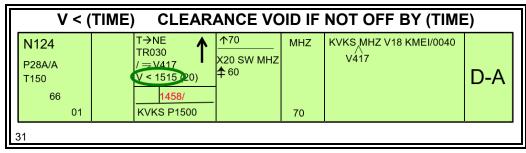
• Used in space 20 followed by an altitude

From-ToJO 7110.65,
par. 2-3-9, 2-3-10



- When used in space 15 and 25, it is spoken as "direct."
- When used in space 28, the dash follows an appropriate control symbol and precedes pertinent control information.

Clearance Void if Not Off by (Time) JO 7110.65, par. 2-3-10

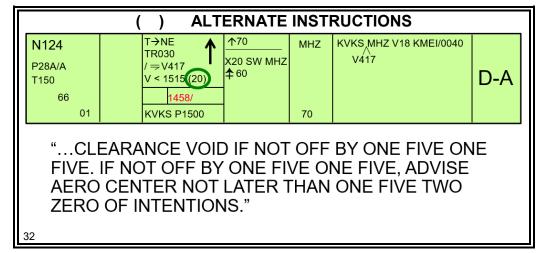


O Used:

- In space 15 followed by a time
- To avoid delay for other traffic at airports:
 - Where communications with aircraft are difficult until airborne
 - Not served by control towers
 - → Provide alternate instructions requiring pilots to advise ATC of intentions

Alternate Instructions JO 7110.65, par. 2-3-10

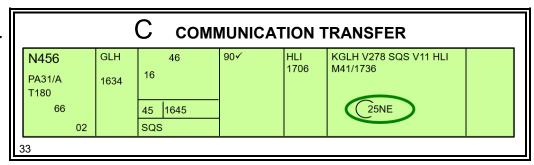




• Used in space 15 here, can be used in other spaces.

Communications Transfer

JO 7110.65, par. 2-3-10

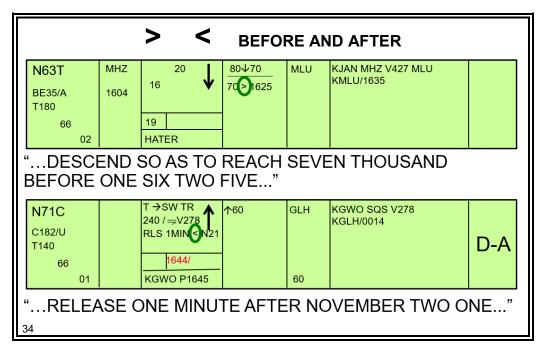


- O Used in space 26
 - Include time, fix, or altitude unless compliance is expected upon receipt
 - · Insert frequency when other than standard
 - Frequency is assigned when clearance is issued through:
 - FDU
 - Tower, unless covered in LOA
- Approach Controls will assign frequency as part of communications transfer
 - · Provided it is covered in LOA

50148001-LP06 / V.2022-02

Before and After JO 7110.65, par. 2-3-10

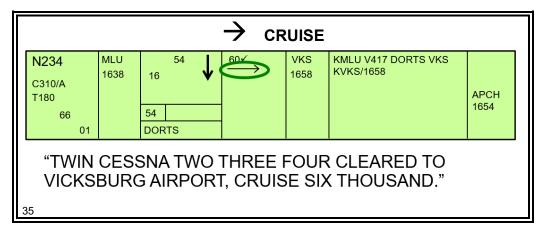




Used in any space

CruiseJO 7110.65, par. 2-3-10

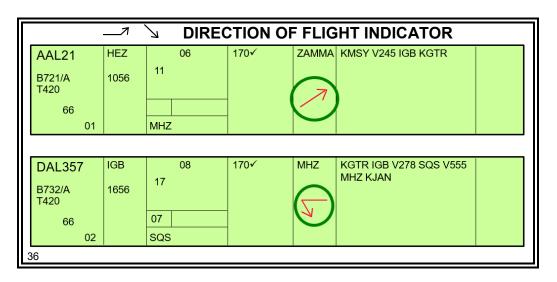




O Used in space 20

Direction of Flight Indicator JO 7110.65, par. 2-3-10



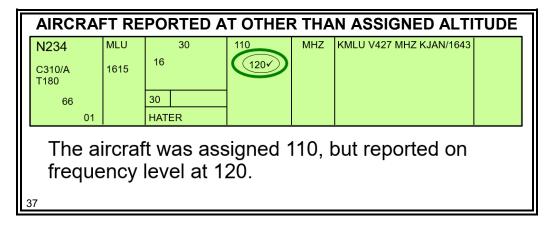


• Used in space 23

Continued on next page

50148001-LP06 / V.2022-02

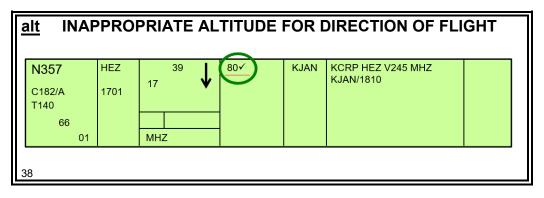
Aircraft Reported at Other Than Assigned Altitude JO 7110.65, par. 2-3-10



NOTE: In some cases, an aircraft may have been assigned an altitude by another controller without proper coordination.

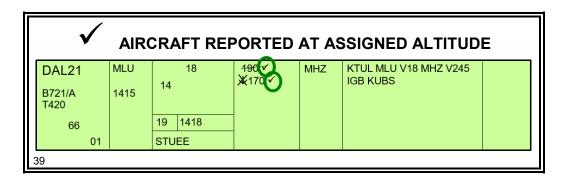
- Used in space 20
 - Write reported altitude and circle it in black

Inappropriate Altitude for Direction of Flight (IAFDOF) JO 7110.65, par. 2-3-10



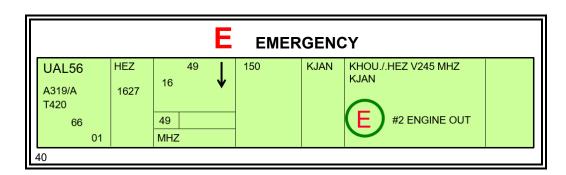
- Used in spaces 20 or 24
- Underlined in red

Aircraft Reported at Assigned Altitude JO 7110.65, par. 2-3-10



O Used in space 20

Emergency JO 7110.65, par. 2-3-10

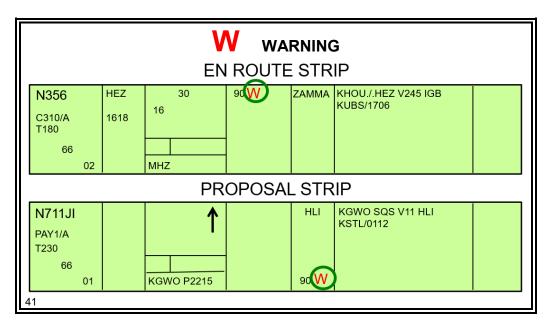


- Used in space 26 at Aero Center
- Written in red
 - Information describing the emergency is written in black

Continued on next page

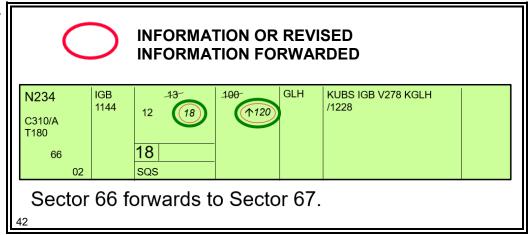
50148001-LP06 / V.2022-02

Warning JO 7110.65, par. 2-3-10



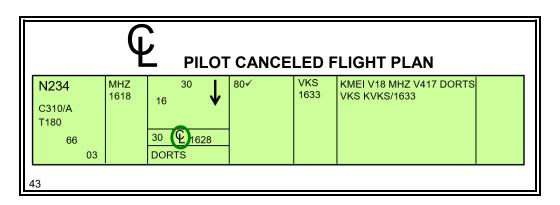
- Used in space 20 to alert controller that action **must** be taken
- Usually adjacent to altitude
- Written in red

Information or Revised Information Forwarded JO 7110.65, par. 2-3-10



- Used in any space
- Circle control information in red when forwarded

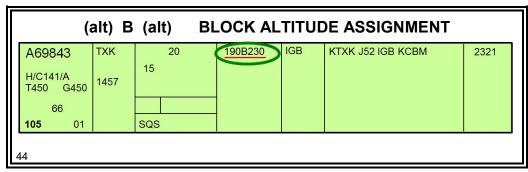
Pilot Canceled Flight Plan JO 7110.65, par. 2-3-10



Used in space 18 with a four-digit time

Block Altitude Assignment

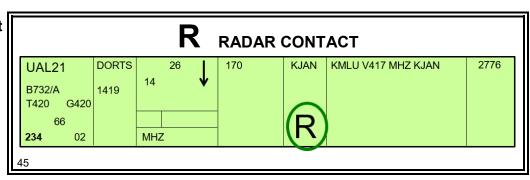
JO 7110.65, par. 2-3-10



- O Used in space 20
- Altitudes are inclusive
 - First altitude must be lower than the second

Radar Contact JO 7110.65.

JO 7110.65, par. 2-3-10



- Normally used in spaces 22, 23, or 24
 - Space may be locally adapted for each facility

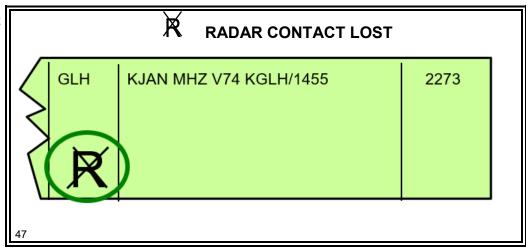
Radar Service Terminated

JO 7110.65, par. 2-3-10

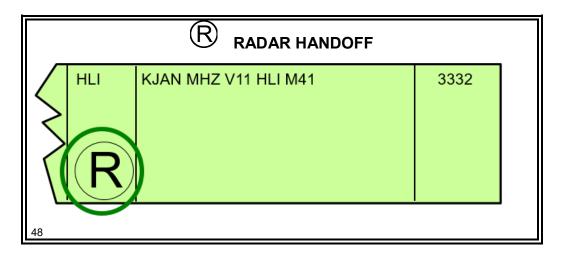


Radar Contact Lost

JO 7110.65, par. 2-3-10

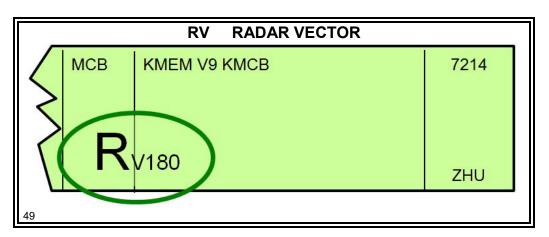


Radar Handoff JO 7110.65, par. 2-3-10



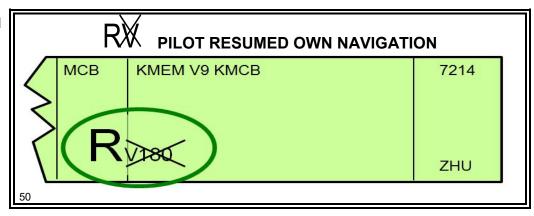
• Circle "R" in black when handoff is completed.

Radar Vector JO 7110.65, par. 2-3-10



- Add "V" after "R" when assigning a vector to an aircraft.
 - · Assigned heading follows the "V"

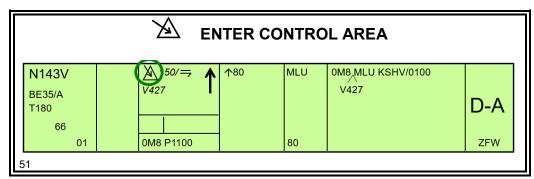
Pilot Resumed Own Navigation JO 7110.65, par. 2-3-10



• Draw an X through "V" and heading when the aircraft is taken off the vector and returned to its own navigation.

Enter Control Area

JO 7110.65, par. 2-3-10



O Used:

- In space 15
- For aircraft requesting clearance in other than Class A, B, C, D, and E areas

Knowledge Check

- **QUESTION:** How is the word "depart" recorded in space 15?
 - A. T
 - B. D
 - C. $T \rightarrow$

52

- **QUESTION:** What does the abbreviation/symbol T→N TL in space 15 mean?
 - A. "Take off north, left turn."
 - B. "Depart now, turn left."
 - C. "Depart north, turn left."

53

Knowledge Check (Cont'd)

QUESTION: An aircraft has been cleared from 140 to 80 and requested to report leaving 140 and reaching 80. How and where should these reports be recorded?

54

- **QUESTION:** When an aircraft reports at an altitude other than its assigned altitude, the altitude is _____.
 - A. Circled in red
 - B. Circled in black
 - C. Underlined in black

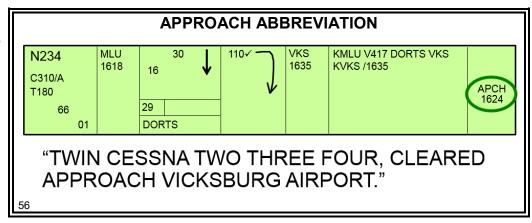
55

APPROACH ABBREVIATIONS

Approach Abbreviations

JO 7110.65, par. 2-3-10; JO 7340.2





- APCH Approach
 - Used in space 28
 - Circle in red when coordinated
 - Write in black when aircraft is cleared for approach
 - → Including four-digit time when aircraft was cleared for approach
 - Implies pilot may execute approach of his/her choice

Specific Approach Procedure Abbreviations

JO 7110.65, par. 2-3-10

- The following specific approach procedure abbreviations are entered in space 28:
 - VR VOR approach
 - ILS ILS approach
 - NDB Nondirectional Radio Beacon approach
 - VA Visual approach
 - GPS GPS approach

Exercise 1



RECORDING CLEARANCES AND CONTROL INFORMATION EXERCISE



Purpose: to practice recording clearances and control information on flight strips

Directions: record the clearances and control information on the flight progress strips using the clearance/request provided

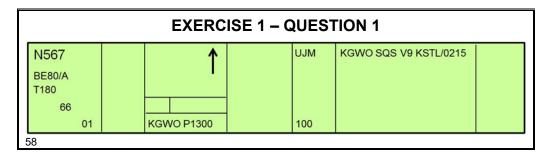
57

Directions

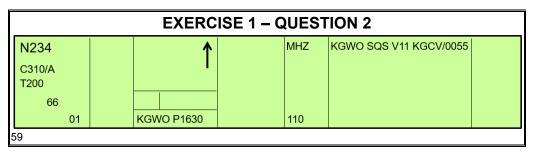
For items 1-13, use approved stripmarking and record the clearances and control information on the flight progress strips using the clearance/request preceding each strip.

Questions

 "Queen Air Five Six Seven, cleared to St. Louis Airport via depart southwest, turn right fly heading two niner zero until joining Victor Niner, Victor Niner. Cross niner miles northwest Sidon VORTAC established on Victor Niner at or below six thousand, climb and maintain one zero thousand."

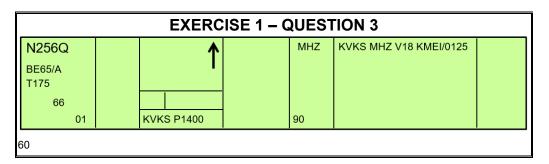


 "Cessna Two Three Four, cleared to Leakesville Airport via direct Sidon, Victor Eleven. Cross one seven miles southeast Sidon VORTAC at or below six thousand, cross one seven miles northwest Magnolia VORTAC at or above eight thousand, climb and maintain one one thousand."



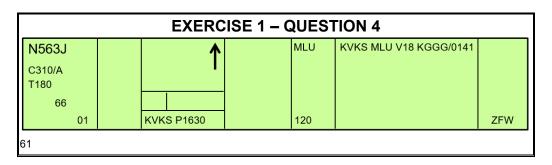
Questions (Cont'd)

3. "Queen Air Two Five Six Quebec, cleared from Vicksburg Airport to Meridian Airport, via depart northeast turn right, fly heading zero three zero until joining Victor Four Seventeen, Victor Four Seventeen Magnolia then as filed, Cross two zero miles southwest Magnolia VORTAC established on Victor Four Seventeen at or above six thousand, climb and maintain niner thousand. Clearance void if not off by one four one zero. If not off by one four one zero advise Aero Center not later than one four one five of intentions. Verify this clearance will allow compliance with local traffic pattern and terrain or obstruction avoidance. Advise, Queen Air Two Five Six Quebec Released for Departure, Contact AERO Center One Two Five Point Zero."



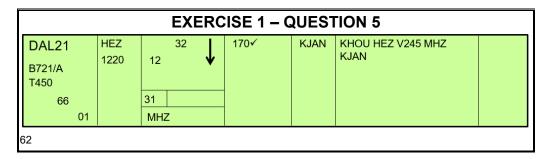
Questions (Cont'd)

4. "Cessna Five Six Three Juliett, cleared from Vicksburg Airport to East Texas Regional Airport via depart northeast, turn left, fly heading three three zero until joining Victor Four Seventeen, Victor Four Seventeen Monroe, then as filed, Cross three one miles southeast Monroe VORTAC established on Victor Four Seventeen at or above seven thousand. Climb and maintain one two thousand. Hold for release."

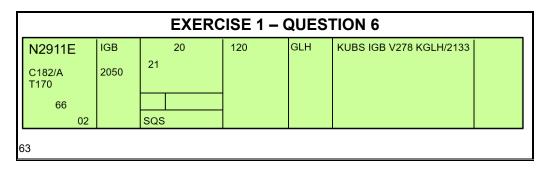


Questions (Cont'd)

5. "Delta Twenty-One, cleared to Magnolia VORTAC, descend and maintain six thousand, hold northwest as published, **no** delay expected. Contact Jackson Approach one one niner point two at one two three zero."

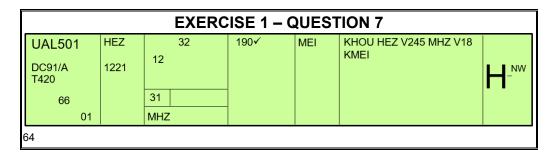


6. "Aero Center, Cessna Two Niner One One Echo estimating Sidon VORTAC two one one niner at one zero thousand."

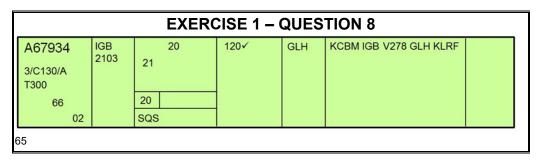


Questions (Cont'd)

7. "United Five Zero One, cleared to Meridian Airport via last routing cleared."

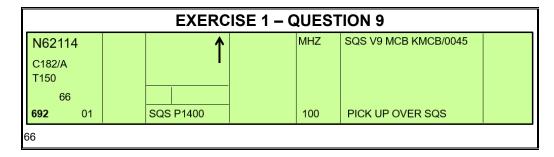


3. "Air Force Six Seven Niner Three Four, maintain one two thousand until one four miles northeast Sidon VORTAC, cross Sidon VORTAC at or above one three thousand, climb and maintain block flight level one eight zero through flight level two zero zero."

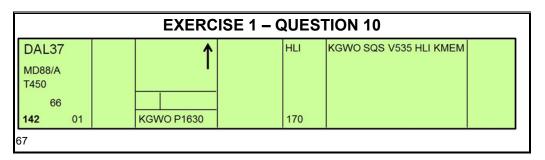


Questions (Cont'd)

9. "Cessna Six Two One One Four, cleared to McComb Airport via direct Sidon, Victor Niner. Climb and maintain one zero thousand."



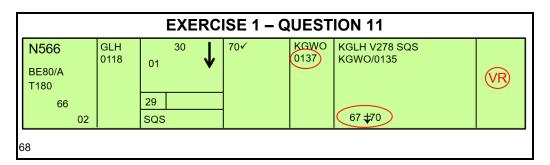
10. "Delta Thirty-Seven, cleared to Memphis Airport via direct SQS as filed. Climb and maintain one zero thousand, expect one seven thousand one zero minutes after departure."



Questions (Cont'd)

11. "November Five Six Six maintain seven thousand until one three miles northwest of Sidon VORTAC, cleared VOR runway five approach circle to runway two three."

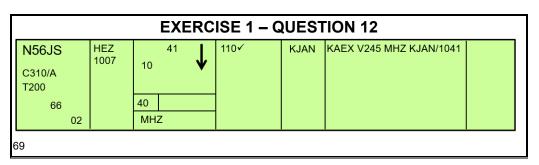
TIME: 0124



NOTE: Arrival information **must** be forwarded to GWO Tower before approach clearance is issued. This is indicated on the strip by circling the GWO estimate in red and by writing and circling VR in red in space 28.

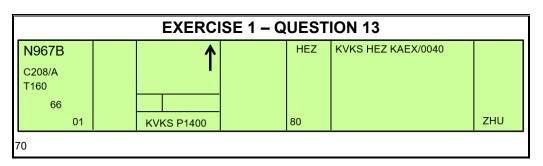
Questions (Cont'd)

12. "November Five Six Juliett Sierra, cleared to Magnolia VORTAC, maintain one one thousand until two zero miles northeast Natchez VOR/DME, descend and maintain six thousand, hold northwest as published, **no** delay expected.



Questions (Cont'd)

13. "Cessna Niner Six Seven Bravo cleared from the Vicksburg Airport to the Alexandria Airport via the Natchez Zero Two Six Radial, Natchez, then as filed. Climb and maintain eight thousand, report leaving six thousand. Clearance void if not off by one four one zero. If not off by one four one zero, advise Aero Center not later than one four one five of intentions. Verify this clearance will allow compliance with local traffic pattern and terrain or obstruction avoidance. Advise, Cessna Niner Six Seven Bravo Released for Departure, Contact AERO Center One Two Five Point Zero."



ACTIVITY 2: IDENTIFYING CONTROL INFORMATION SYMBOLS

Activity 2

IDENTIFYING CONTROL INFORMATION SYMBOLS ACTIVITY



Purpose: to practice using control information symbology used in stripmarking

71

Description

This exercise provides you with opportunities to practice identifying the control information symbols used in stripmarking. The first activity consists of a set of electronic flash cards that allows you to test yourself on how well you know the symbols. You will have one flash card per symbol and will click the card to view the description of the symbol.

Directions

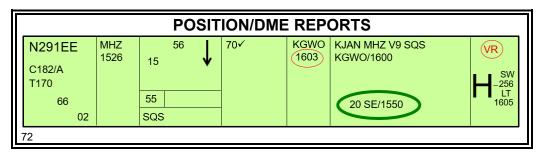
Access the IET eLearning menu. Select **Lesson 6 – Recording Clearances** and **Control Information**. Click on the title to launch the **Identifying Control Information Symbols** activity.

Time Allotted

10 minutes

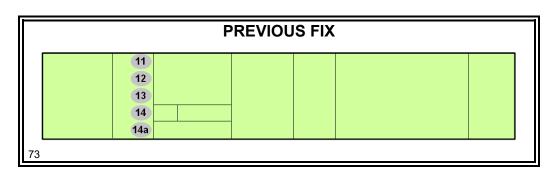
RECORDING REPORTS/TIMES ON FLIGHT PROGRESS STRIPS

Position/DME Reports JO 7110.65, par. 2-3-2



- Record reports in space 26 followed by:
 - Slant (/)
 - Time reported by pilot

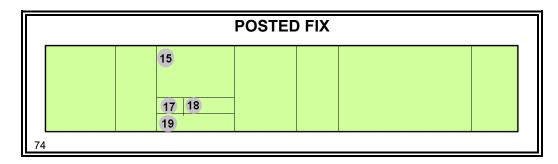
TimesJO 7110.65, par. 2-3-2



- ⊙ Spaces 11 14
 - Space 11 Previous fix
 - Space 12 Previous fix estimated time
 - Space 13 Revised previous fix estimated time
 - Space 14 Previous fix actual time
 - Actual departure time on first fix posting after departure
 - Space 14a Plus time (in minutes) from previous fix to posted fix

RECORDING REPORTS/TIMES ON FLIGHT PROGRESS STRIPS (Continued)

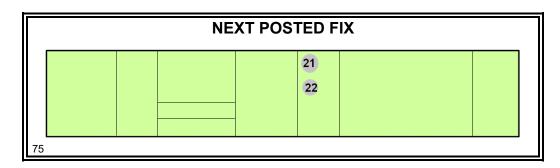
Times (Cont'd) JO 7110.65, par. 2-3-2



- Spaces 15, 17, 18, and 19
 - Space 15 Center-estimated time over posted fix
 - Space 17 Pilot-estimated time over posted fix
 - Written in two digits (minutes)
 - Space 18
 - Actual time (pilot-reported) over posted fix
 - Time entered/leaving holding fix
 - Arrival time (at nonapproach control airport) if posted fix in space
 19 is the airport.
 - Cancellation of IFR
 - Departure time
 - → Actual (written in black), or
 - → Assumed (written in red)
- Space 19 Posted fix

RECORDING REPORTS/TIMES ON FLIGHT PROGRESS STRIPS (Continued)

Times (Cont'd) JO 7110.65, par. 2-3-2



Spaces 21 and 22

- Space 21 Next posted fix, write airport ID, if not already in space 19 or 21.
- Space 22 Pilot's estimate at next fix, or arrival time (at non approach control airport) if airport in space 21.
 - Pilot will give estimate of this fix when they report progressing the posted fix

EXERCISE 2: STRIPMARKING

Exercise 2



STRIPMARKING EXERCISE



Purpose: to practice marking flight progress strips

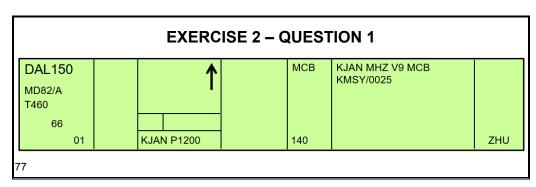
Directions: complete the strips based on information provided by instructor

Directions

Your instructor will read 14 clearances aloud. You should record each clearance on a different flight progress strip provided by your instructor.

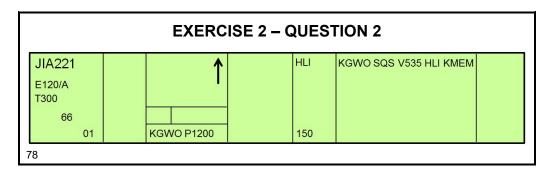
Flight Strips

1. JAN Approach requests clearance, Delta One-Fifty, to MSY Airport. (Coordination has been completed.)



Flight Strips (Cont'd)

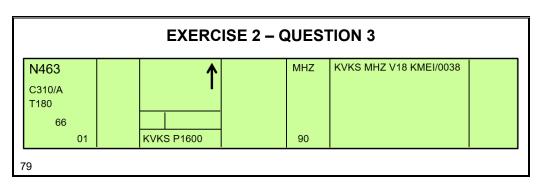
2. Greenwood Tower requests clearance Blue Streak Two Twenty-One, to Memphis Airport. (Coordination has been completed.)



NOTE: Assumed departure time is written in red in space 18.

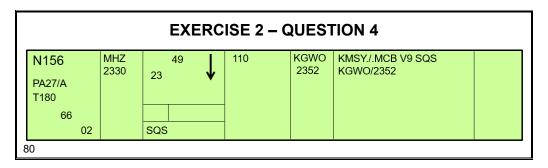
Flight Strips (Cont'd)

3. Aero Center Flight Data requests clearance, Twin Cessna Four Six Three, from Vicksburg Airport to Meridian Airport. (Coordination has been completed.)

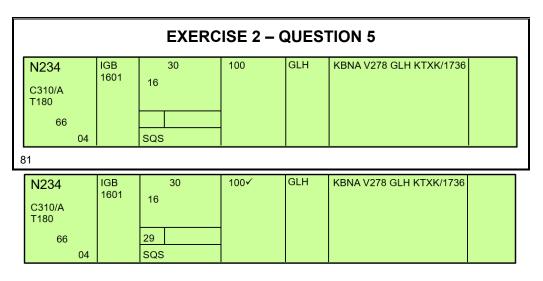


Flight Strips (Cont'd)

4. N156 is estimating Sidon VORTAC two three five zero, level at one one thousand.



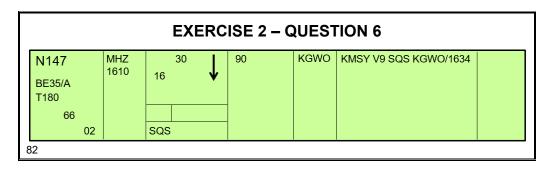
5.



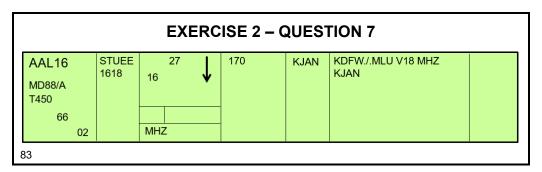
Continued on next page

Flight Strips (Cont'd)

6. N147 is estimating Sidon VORTAC one six three one, level at niner thousand.



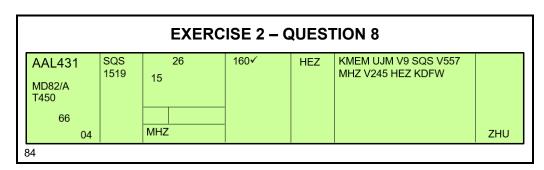
7. Indicate that AAL16 estimated Magnolia VORTAC one six two seven, at one seven thousand and has declared an emergency due to a fuel leak.



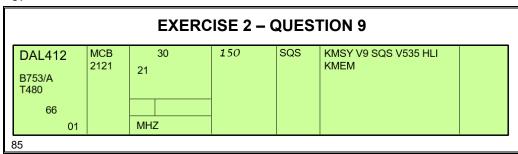
Continued on next page

Flight Strips (Cont'd)

8.



9.

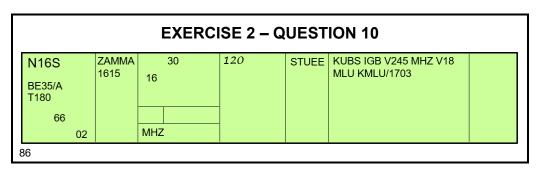


Continued on next page

60

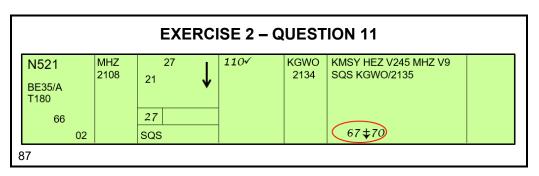
Flight Strips (Cont'd)

10.



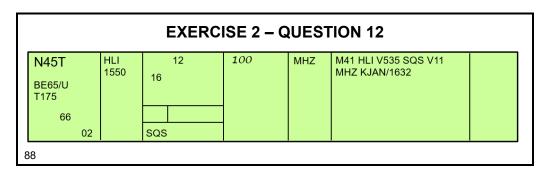
Flight Strips (Cont'd)

11. N521 is level at one one thousand.



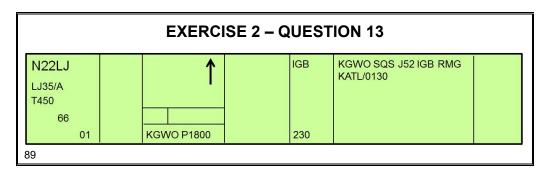
Flight Strips (Cont'd)

12.



Flight Strips (Cont'd)

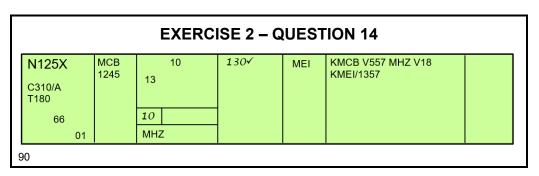
13. Greenwood Tower requests clearance Lear Two Two Lima Juliett, to Atlanta Airport. (Coordination has been completed.)



NOTE: Assumed departure time is written in red in space 18.

Flight Strips (Cont'd)

14.



IN CONCLUSION

Lesson Review

LESSON REVIEW

The following topics were covered in this lesson:

- Control symbology
- Clearance and miscellaneous abbreviations
- Control information symbols
- Approach abbreviations
- Recording reports/times on flight progress strips



Q1

End-of-Lesson Test

END-OF-LESSON TEST

Recording Clearances and Control Information



92

APPENDIX A: ABBREVIATIONS TABLE

AbbreviationsJO 7110.65,
par. 2-3-10, table
2-3-11

Abbreviation	Meaning
A	Cleared to airport (point of intended landing)
В	Center clearance delivered
С	ATC clears (when clearance relayed through non-ATC facility)
CAF	Cleared as filed
D	Cleared to depart from the fix
F	Cleared to the fix
Н	Cleared to hold and instructions issued
L	Cleared to land
N	Clearance not delivered
0	Cleared to the outer marker
PD	Cleared to climb/descend at pilot's discretion
Q	Cleared to fly specified sectors of a NAVAID defined in terms of courses, bearings, radials or quadrants within a designated radius.
Т	Cleared through (for landing and takeoff through intermediate point)
V	Cleared over the fix
X	Cleared to cross (airway, route, radial) at (point)
Z	Tower jurisdiction

APPENDIX A: ABBREVIATIONS TABLE (Continued)

Miscellaneous Abbreviations JO 7110.65, par. 2-3-10, table 2-3-12

Abbreviation	Meaning
BC	Back course approach
CT	Contact approach
FA	Final approach
FMS	Flight management system approach
GPS	GPS approach
I	Initial approach
ILS	ILS approach
MA	Missed approach
MLS	MLS approach
NDB	Nondirectional radio beacon approach
OTP	VFR conditions-on-top
PA	Precision approach
PT	Procedure turn
RA	Resolution advisory (Pilot reported TCAS event)
RH	Runway heading
RNAV	Area navigation approach
RP	Report immediately upon passing (fix/altitude)
RX	Report crossing
SA	Surveillance approach
SI	Straight-in approach
TA	TACAN approach
TL	Turn left
TR	Turn right
VA	Visual approach
VR	VOR approach

APPENDIX B: CONTROL INFORMATION SYMBOLS TABLE

Control Information Symbols (Part I) JO 7110.65, par. 2-3-10, figure 2-3-7

Symbols	Meaning
T → ()	Depart (direction, if specified)
1	Climb and Maintain
→	Descend and Maintain
\rightarrow	Cruise
a	At
X	Cross
$-\text{M}\rightarrow$	Maintain
=	Join or intercept airway/jet route/track or course
	While in controlled airspace
Δ	While in control area
	Enter control area
\triangle	Out of control area
NW O E	Cleared to enter, depart or through surface area. Indicated direction of flight by arrow and appropriate compass letter. Maintain Special VFR conditions (altitude if appropriate) while in surface area.
250 K	Aircraft requested to adjust speed to 250 knots.
-20 K	Aircraft requested to reduce speed 20 knots
+30 K	Aircraft requested to increase speed 30 knots
W	Local Special VFR operations in the vicinity of (name) airport are authorized until (time). Maintain special VFR conditions (altitude if appropriate)
>	Before
<	After or past
<u>170 (</u> red)	Inappropriate altitude for direction of flight. (Underline assigned altitude/flight level in red).
/	Until
()	Alternate instructions
Restriction	Restriction
$\overline{}$	At or Below
<u> </u>	At or Above
- (Dash)	From-to (route, time, etc.)
(Alt)B(Alt)	Indicates a block altitude assignment. Altitudes are inclusive, and the first altitude shall be lower than the second. Ex: 310B370
V <	Clearance void if aircraft not off ground by (time)
	NOTE: The absence of an airway route number between two fixes in the route of flight indicates "direct"; no symbol or abbreviation is required.

APPENDIX B: CONTROL INFORMATION SYMBOLS TABLE (Continued)

Control Information Symbols (Part II) JO 7110.65, par. 2-3-10, figure 2-3-8

Q	Pilot cancelled flight plan
✓	EN ROUTE: Aircraft has reported at assigned altitude, Example; 80
~	TERMINAL/FSS: Information forwarded (indicated information forwarded as required
(red)	EN ROUTE: Information or revised information forwarded. (altitude/flight level for direction of flight or other control information circle, in red, the time (Minutes and altitude when a flight forwarded. Use method in both inter-center and intra-center
50	Other than assigned altitude reported (circle reported altitude)
10 6	DME holding (use with mileages)(Upper figure indicates distance from station to DME fix, lower figure indicates length of holding pattern.) In the example, the DME fix is 10 miles out with a 6 mile pattern indicated.
(mi.)(dir.)	DME arc of VORTAC, TACAN, or MLS.
C (freq.)	Contact (facility) or (Freq.), (time, fix, or altitude if appropriate). Insert frequency only when it is other than standard.
R	Radar contact
R	EN ROUTE: Requested altitude (preceding altitude information)
×	Radar service terminated
*	Radar contact lost
RV	Radar vector
RX(Pilot resume own navigation
R	Radar handoff (circle symbol when handoff completed)
E (red)	EMERGENCY
W (red)	WARNING
Р	Point out initiated. Indicate the appropriate facility, sector or position. Example: PZFW.
FUEL	Minimum fuel
	NOTE: The absence of an airway route number between two fixes in the route of flight indicates "direct"; no symbol or abbreviation is required.