



**Federal Aviation
Administration**

Initial En Route Qualification Training

Lesson 12 Departure Procedures

Course 50148001

LESSON PLAN DATA SHEET

COURSE NAME: INITIAL EN ROUTE QUALIFICATION TRAINING
COURSE NUMBER: 50148001

LESSON TITLE: DEPARTURE PROCEDURES

DURATION: 7+30 HOURS

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

REFERENCE(S): FAA ORDER JO 7110.65, AIR TRAFFIC CONTROL

HANDOUT(S): departures.f2k - EXERCISE STRIPS

**EXERCISE(S)/
ACTIVITY(S):** ACTIVITY: DEPARTURE COORDINATION AND CLEARANCES
EXERCISE: STRIPMARKING FOR DEPARTURES

**END-OF-LESSON
TEST:** YES

**PERFORMANCE
TEST:** NONE

MATERIALS: NONE

**OTHER PERTINENT
INFORMATION:**

DISCLAIMER


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INTRODUCTION


Initial En Route Qualification Training

Lesson 12 Departure Procedures

V.2022-02
Presented by
FAA Academy
Air Traffic Division



Federal Aviation
Administration



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The next lessons in the En Route Stage 1 course will focus on the procedural rules used to separate and control aircraft. Building on the skills and knowledge from the IFR Clearances and Route Assignments lesson, you will now be required to correctly issue departure clearances and procedures that result in a safe and efficient traffic flow.

This control function is the first procedure air traffic controllers use to transition an IFR aircraft from the airport to the en route environment. Utilizing all the procedures you have mastered to this point and adding departure procedures will facilitate your development as a safe and efficient air traffic controller.

INTRODUCTION *(Continued)*

DEPARTURE PROCEDURES



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Learning to issue a departure clearance is an important milestone on the way to becoming a fully certified radar controller. In the field, as the radar-associate controller you will issue most of the departure clearances from non-approach control airports. It will be your responsibility to ensure the aircraft enter the en route environment safely.

Purpose

In this lesson, we will cover procedures, phraseology, and methods for issuing departure clearances to aircraft.

INTRODUCTION *(Continued)*

Lesson Objectives

LESSON OBJECTIVES

- On an End-of-Lesson Test, and in accordance with FAA Order JO 7110.65, you will identify procedures for:
 - Issuing initial departure instructions and clearances
 - Issuing abbreviated departure clearances
 - Issuing departure restrictions
 - Coordinating with the receiving facility

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DEPARTURE CLEARANCE

Departure Terminology

JO 7110.65,
par. 4-3-1

- ⦿ Use these terms to issue departure clearances when necessary:
 - “DEPART”
 - “FLY”
 - “DEPARTURE”
 - ⦿ Avoid using “TAKEOFF” except when clearing an aircraft for takeoff or canceling a takeoff clearance. The word “TAKEOFF” is used **only** in the tower/terminal environment.
-

Departure Clearance Items

JO 7110.65,
par. 4-3-2 ➔
Phraseology Example

PHRASEOLOGY EXAMPLE - RELAY

FDU: Aero Center Flight Data, request clearance Cessna Two Three Four, from Vicksburg to Natchez.”

Center: “Cessna Two Three Four, cleared **from Vicksburg Airport** to...”

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- ⦿ Include the following items in IFR departure clearances:
 - Airport of departure when issuing a departure clearance for relay to an aircraft by a noncontrol facility (Flight Data Unit, dispatcher, etc.)

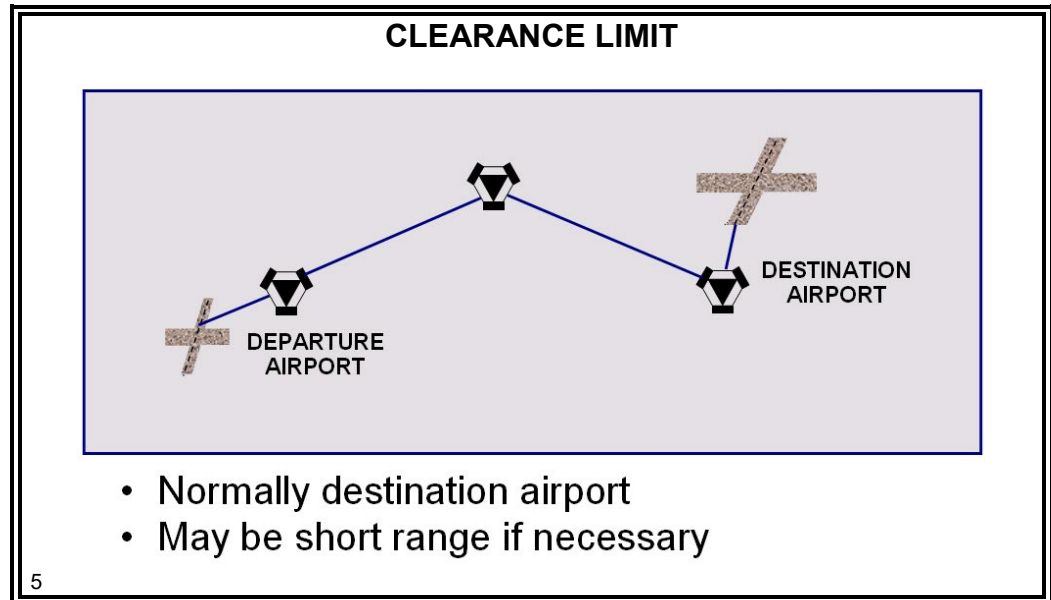
NOTE: This phraseology enables the controller to avoid errors that may occur when an aircraft has multiple proposals in the system. The phraseology ties the clearance down as being valid from the **named** airport **only**.

Continued on next page

DEPARTURE CLEARANCE *(Continued)*

Departure Clearance Items (Cont'd)

JO 7110.65,
par. 4-3-2



- Clearance limit
 - Specify destination airport even though outside controlled airspace
 - Issue short-range clearance limit as provided for in any established procedures
 - When the clearance limit is a NAVAID, the type of NAVAID must follow the NAVAID name.



Phraseology

“Cherokee one Papa Bravo Cleared to Sidon VORTAC.....”

- When the clearance limit is an intersection or waypoint and the type is known, the type must follow the intersection or waypoint name.



Phraseology

“Cherokee one Papa Bravo Cleared to HEDUD Intersection.....”

DEPARTURE CLEARANCE *(Continued)*

Initial Departure Instructions

JO 7110.65,
par. 4-3-2

✈ Phraseology Example

PHRASEOLOGY EXAMPLE – RUNWAY-IN-USE						
Greenwood Tower Advises Runway 23 in Use						
N234		T→SW TR 350⇒V11	↑70	HLI	KGWO SQS V11 HLI M41/0030	1501
C310/A T180						D-A
66						
073	01	KGWO P1630		70		

“November Two Three Four, cleared to Holly Springs Airport via **depart southwest, turn right, fly heading three five zero until joining Victor Eleven**, Victor Eleven as filed. Climb and maintain seven thousand. Squawk one five zero one.”

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⦿ At airports with airport traffic control service, specify as necessary:

- Direction of takeoff/turn, or
- Initial heading/azimuth

Continued on next page

DEPARTURE CLEARANCE *(Continued)*

Initial
Departure
Instructions
(Cont'd)
JO 7110.65,
par. 4-3-2
✈
Phraseology
Example

PHRASEOLOGY EXAMPLE – PILOT CONCURRENCE	
ZAE FDU:	“Flight Data, request clearance Queen Air Five Six Seven, from Vicksburg Airport to Louis Armstrong Airport.”
Center:	“ Will the pilot of Queen Air Five Six Seven accept a northeast departure with (left/right) turns? ”
ZAE FDU:	“Affirmative.”
Center:	“Queen Air Five Six Seven cleared... Verify this clearance will allow compliance with local traffic pattern, and terrain or obstruction avoidance. ”
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- ⦿ At airports **without** airport traffic control service within Class E surface area, specify as necessary:
 - Direction of takeoff/turn or initial heading/azimuth to be flown
 - Solicit pilot’s concurrence before issuing these in a clearance
 - After issuing direction of takeoff and/or heading to pilot:
 - Compatibility with a procedure issued may be verified by the pilot for compliance with local traffic pattern, terrain, or obstruction avoidance

✈
Phraseology
Example

“Verify this clearance will allow compliance with local traffic pattern and terrain or obstruction avoidance.”

NOTE: “Verify” phraseology is required at OM8 and VKS anytime a departure clearance (including initial departure instructions) is issued that differs from the pilot’s filed route.

- Clearances given to Flight Data Unit (FDU) – Controllers must release the aircraft and issue a frequency to contact the Departure Sector.

EXAMPLE: Advise (ACID) Released for Departure, Contact AERO Center One Two Five Point Zero.

Continued on next page

DEPARTURE CLEARANCE (Continued)

Initial Departure Instructions (Cont'd)

JO 7110.65,
par. 4-3-2



Phraseology Example

DEPARTURE PROCEDURE EXAMPLE						
N234 C172/A T150 66 01	EDC ±530	150/⇒V427 V<1545(55) 0M8 P1530	↑90 X18NW MHZ ±60	MHZ 90	0M8 MHZ V18 KMEI/0048 V427	D-A
<p>"November Two Three Four, cleared from Byerley Airport to Meridian Airport via when entering controlled airspace, fly heading one five zero until joining Victor Four Twenty-Seven, Victor Four Twenty-Seven, Magnolia, Victor Eighteen. Cross one eight miles northwest Magnolia VORTAC established on Victor Four Twenty-Seven at or above six thousand. Climb and maintain nine thousand. Clearance void if not off by one five four five. If not off by one five four five, advise Aero Center not later than one five five five of intentions. Verify this clearance will allow compliance with local traffic pattern and terrain or obstruction avoidance. Advise (ACID) Released for Departure, Contact AERO Center One Two Five Point Zero."</p>						
N234 C172/A T150 66 02	0M8 1530 +20	50 15 MHZ	↑90 X18NW ±60 ↑90	MEI	0M8 MHZ V18 KMEI /0048 V427	

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⊙ At all other airports

- Do **not** specify direction of takeoff/turn after takeoff
- If necessary, specify initial heading/azimuth to be flown after takeoff to apply **only** within controlled airspace

NOTE: Coordinate before issuing clearance.

NOTE: "Verify" phraseology is required at 0M8 and KVKS anytime a departure clearance (including initial departure instructions) is issued that differs from the pilot's filed route.

NOTE: Clearance void time will be covered later in this lesson.

Continued on next page

DEPARTURE CLEARANCE *(Continued)*

Initial Departure Instructions (Cont'd)

JO 7110.65,
par. 4-3-2



Phraseology Example

⦿ Where **only** written departure procedures are published for an airport and pilot compliance is necessary to ensure separation:

- Include the procedure as part of the clearance

“Depart via the (airport name) (runway number) departure procedure.”

DEPARTURE CLEARANCE *(Continued)*

Knowledge Check

KNOWLEDGE CHECK

❖ **QUESTION:** When is the term “TAKEOFF” used in departure clearances?

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KNOWLEDGE CHECK

❖ **QUESTION:** When is the departure airport included in a clearance?

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KNOWLEDGE CHECK

❖ **QUESTION:** What may be specified, if necessary, to departing aircraft at airports with air traffic control service?

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DEPARTURE CLEARANCE *(Continued)*

Knowledge
Check
(Cont'd)

KNOWLEDGE CHECK

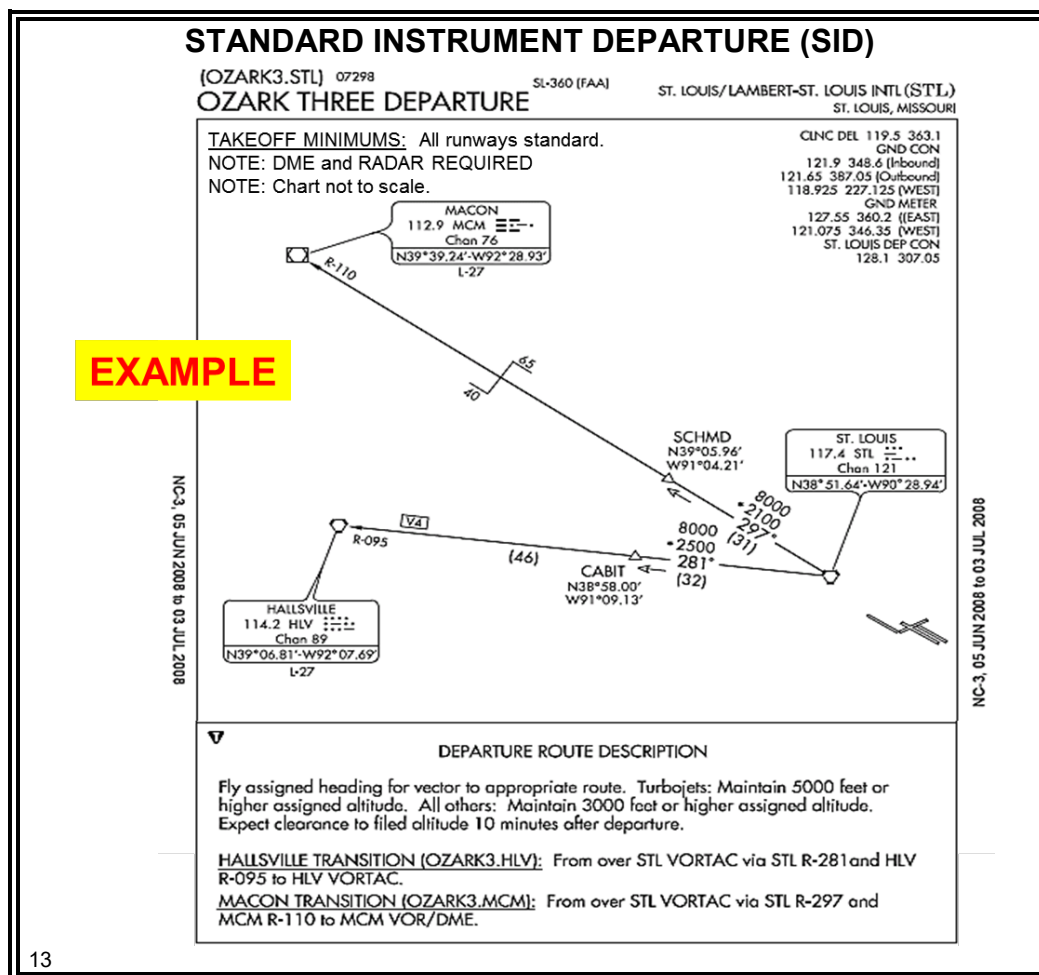
- ❖ **QUESTION:** At airports within a Class E surface area where airport traffic control service is **not** provided, when can you specify the initial heading to be flown after takeoff?
- A. Anytime you decide, if necessary to expedite the departure
 - B. After obtaining/soliciting the pilot's concurrence concerning these items
 - C. Only on pilot request

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DEPARTURE CLEARANCE (Continued)

Standard Instrument Departure (SID)

JO 7110.65,
par. 4-3-2



① Assign a SID and include a transition, if necessary.

- SIDs may be assigned if **not** included in the original flight plan with the pilot's concurrence
 - If the pilot does **not** concur, he/she **must** notify ATC



Phraseology

"(SID name and number) DEPARTURE."

"(SID name and number) DEPARTURE, (transition name) TRANSITION."



Phraseology Example

"Southwest Twelve Eleven cleared to KOKC Airport via OZARK Three Departure Hallsville Transition J181 TUL direct."

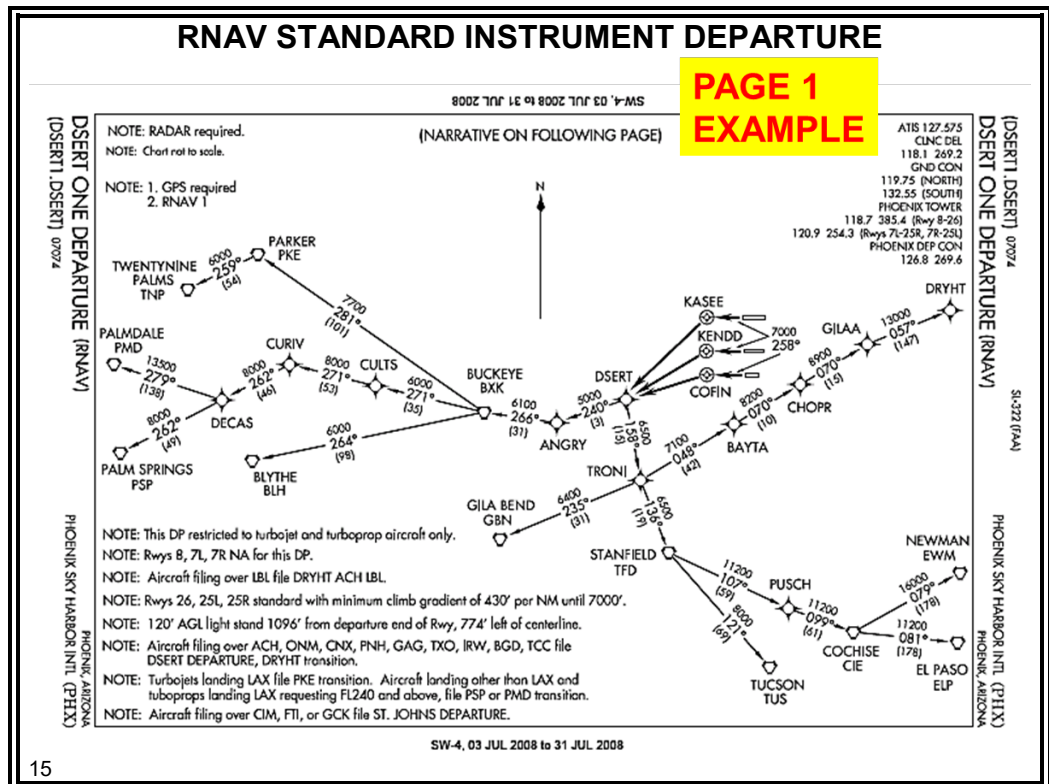
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DEPARTURE CLEARANCE (Continued)

Standard
Instrument
Departure
(SID)
(Cont'd)
JO 7110.65,
par. 4-3-2

SID FLIGHT STRIP EXAMPLE						
SWA1211 B737/L T432		↑		HLV	KSTL OZARK3 HLV J181 TUL KOKC	
			KSTL P1200	280		

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DEPARTURE CLEARANCE (Continued)

Standard
Instrument
Departure
(SID)
(Cont'd)
JO 7110.65,
par. 4-3-2

RNAV STANDARD INSTRUMENT DEPARTURE		
(DSERT1.DSERT) 02276	SL-322 (FAA)	PHOENIX SKY HARBOR INTL (PHX)
DSERT ONE DEPARTURE (RNAV)		PHOENIX, ARIZONA
<div>DEPARTURE ROUTE DESCRIPTION</div> <p><u>TAKE-OFF RUNWAY 26:</u> Climb to 7000 via 258° course to KASEE WP, then direct DSERT WP, Thence</p> <p><u>TAKE-OFF RUNWAY 25R:</u> Climb to 7000 via 258° course to KENDD WP, then direct DSERT WP, Thence</p> <p><u>TAKE-OFF RUNWAY 25L:</u> Climb to 7000 via 258° course to COFIN WP, then direct DSERT WP, Thence</p> <p>. . . then via assigned transition/altitude.</p> <p><u>LOST COMMUNICATIONS:</u> Expect filed altitude 3 minutes after departure</p> <p><u>BLYTHE TRANSITION (DSERT1.BLH):</u> (Restricted to FL220 and below).</p> <p><u>COCHISE TRANSITION (DSERT1.CIE)</u></p> <p><u>DRYHT TRANSITION (DSERT1.DRYHT)</u></p> <p><u>EL PASO TRANSITION (DSERT1.ELP)</u></p> <p><u>GILA BEND TRANSITION (DSERT1.GBN)</u></p> <p><u>NEWMAN TRANSITION (DSERT1.EWM)</u></p> <p><u>PALM SPRINGS TRANSITION (DSERT1.PSP)</u></p> <p><u>PALMDALE TRANSITION (DSERT1.PMD)</u></p> <p><u>PARKER TRANSITION (DSERT1.PKE)</u></p> <p><u>STANFIELD TRANSITION (DSERT1.TFD)</u></p> <p><u>TUCSON TRANSITION (DSERT1.TUS)</u></p> <p><u>TWENTYNINE PALMS TRANSITION (DSERT1.TNP)</u></p>		
SW-4, 03 JUL 2008 to 31 JUL 2008		SW-4, 03 JUL 2008 to 31 JUL 2008

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EXAMPLE

NOTE: SIDs are rarely issued by en route controllers.

DEPARTURE CLEARANCE *(Continued)*

Preferential Routes

JO 7110.65,
Pilot/Controller
Glossary

PREFERENTIAL DEPARTURE ROUTE EXAMPLE

SWA1211 B737/G T432			↑		TUL	KOKC IRW061 TUL222 TUL J181 KSTL	
					280		
		KOKC P1200					

The IRW061 TUL222 is a PDR that is
applied by the ZKC computer.

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A **Preferential Departure Route (PDR)** is a specific departure route from an airport or terminal area to an en route point where there is **no** further need for flow control.



A **Preferential Departure and Arrival Route (PDAR)** is a route between two terminals which are within or immediately adjacent to one ARTCC's area.

DEPARTURE CLEARANCE (Continued)

Route of Flight

JO 7110.65,
par. 4-3-2

PHRASEOLOGY EXAMPLE - ROUTE						
N234		T→SW TR 350/≡ V11	↑	↑70	HLI	KGWO SQS V11 HLI M41/0030
C310/A						
T180						
66						
073	01	KGWO P1630		70		1501
						D-A

“November Two Three Four, cleared to Holly Springs Airport via depart southwest, turn right, fly heading three five zero until joining Victor Eleven, Victor Eleven as filed. Climb and maintain seven thousand. Squawk one five zero one.”

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☉ Specify one or more of the following:

- Airway
- Route
- Course
- Heading
- Azimuth
- Arc
- Vector

☉ When a short-range clearance limit is utilized:

- Advise the pilot of the routing to expect beyond the short-range clearance limit that differs from filed route



Phraseology

“EXPECT FURTHER CLEARANCE VIA (airways, routes, or fixes).”

DEPARTURE CLEARANCE *(Continued)*

Altitude Assignments

JO 7110.65,
par. 4-3-2



Phraseology Example

PHRASEOLOGY EXAMPLE – ALTITUDE NOT AVAILABLE					
N1217S C172/A T160 66 01		T→NE TL 330/⇒ V417 V<1710(20)	↑60	MLU KVKS DORTS V417 MLU V18 KSHV/0044	D-A
		KVKS P1705	40 W		

“November One Two One Seven Sierra, cleared from Vicksburg Airport to Shreveport Airport via depart northeast, turn left, fly heading three three zero until joining Victor Four Seventeen, Victor Four Seventeen Monroe as filed. **Climb and maintain six thousand. Four thousand is not available.** Clearance void if not off by one seven one zero. If not off by one seven one zero, advise Aero Center not later than one seven two zero of intentions. Verify this clearance will allow compliance with local traffic pattern and terrain or obstruction avoidance. Advise (ACID) Released for Departure, Contact AERO Center One Two Five Point Zero.”

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NOTE: The altitude is **not** available in this example because the requested altitude is below the MEA for V417 after DORTS. Other examples of when altitude is **not** available can include Special Use Airspace (SUA), traffic, FL180 when altimeters are below 29.92, etc.

⊙ Assign altitudes in the order of preference listed:

- Altitude requested by the pilot
- Nearest possible to the requested altitude and:
 - Inform the pilot when the requested altitude will be available, unless specified in a SID
 - If requested altitude is **not** available, inform the pilot:
 - What the final altitude is expected to be
 - When/where to expect the final altitude



Phraseology

“CLIMB AND MAINTAIN (the altitude as near as possible to the pilot’s requested altitude). EXPECT (the requested altitude or an altitude different from the requested altitude) AT (time or fix),

and if applicable,

(pilot’s requested altitude) IS NOT AVAILABLE.”

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DEPARTURE CLEARANCE *(Continued)*

Altitude Assignments (Cont'd)

JO 7110.65,
par. 4-3-2



Phraseology Example

PHRASEOLOGY EXAMPLE – EXPECT ALTITUDE						
N235			↑	↑ 110	HLI	KVKS VKS MHZ SQS HLI
LJ24/A						M41/ 0110
T450		V<1620(30)				
66						
073	01	KVKS P1600			(190 @ SQS)	
						3365
						D-A

“November Two Three Five, cleared from Vicksburg Airport to Holly Springs Airport via Vicksburg Radio Beacon, direct Magnolia, direct Sidon direct Holly Springs direct. **Climb and maintain one one thousand. Expect flight level one niner zero at Sidon.** Squawk three three six five. Clearance void if not off by one six two zero. If not off by one six two zero, advise Aero Center not later than one six three zero of intentions.”

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DEPARTURE CLEARANCE *(Continued)*

Altitude Assignments (Cont'd)

JO 7110.65,
par. 4-3-2



Phraseology Example

PHRASEOLOGY EXAMPLE – WHEN TO EXPECT ALTITUDE						
N356UM			↑ 50	IGB	KVKS VKS MHZ IGB KSTF/0035	4431
BE30/I T260 66		V<1155(1225)				D-A
191 01						
		KVKS P1125		(130 10<D)		

“King Air Three Five Six Uniform Mike, cleared from Vicksburg Airport to Starkville Airport via Vicksburg Radio Beacon, direct Magnolia, direct Bigbee, direct. **Climb and maintain five thousand. Expect one three thousand one zero minutes after departure.** Squawk four four three one. Clearance void if not off by one one five five. If not off by one one five five, advise Aero Center not later than one two two five of intentions.”

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– Issue final altitude prior to aircraft reaching:

→ Fix

→ Time specified in clearance

NOTE: This clearance and stripmarking is used in a radar environment.

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DEPARTURE CLEARANCE *(Continued)*

Knowledge Check

KNOWLEDGE CHECK

❖ **QUESTION:** What is the order of preference when assigning altitudes?

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KNOWLEDGE CHECK

❖ **QUESTION:** What is the phraseology to issue the clearance as marked on the strip?

UAL34			↑	↑100	HEZ	KJAN MHZ V245 AEX V212 LFK V13 CLEEP KIAH	
B733/A							D-A
T450							
66							
02	EDC 0800	0805/		↑160	(160 @ BARNE)		ZHU
		KJAN P0805					

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NOTE: Coordinate before issuing clearance.

Continued on next page

Knowledge Check (Cont'd)

QUESTION: What is the phraseology to issue the clearance as marked on the strip?

N234 C172/A T160 66 29401	<div>↑</div>	↑ 50	MHZ (100 10<D)	0M8 BLE MHZ MCB KLUL/0048	2465 D-A
		V<1025(35)			
		0M8 P1008			

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ABBREVIATED DEPARTURE CLEARANCE

Conditions

JO 7110.65,
par. 4-3-3

- ⦿ Issue an abbreviated departure clearance if its use reduces verbiage and the following conditions are met:

NOTE: In this course, the nonradar lab will seldom use abbreviated departure clearances; however, the radar lab will use them frequently.

- Filed route of flight is unchanged prior to departure:
 - By pilot
 - By company
 - By operations officer
 - By input operator
 - In the stored flight plan program
- All ATC facilities concerned have sufficient route of flight information to exercise control responsibilities

EXAMPLE – INSUFFICIENT ROUTE INFORMATION

When flight data processing is not available:

- The pilot filed: KJAN MHZ V18 KMLU
- If approach control receives only “CLEARED AS FILED,” it could be interpreted as any of the following:
 - KJAN MHZ V427 KMLU
 - KJAN MHZ V417 KMLU
 - KJAN direct KMLU
 - KJAN MHZ V18 KMLU

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- Therefore, when JAN APCH and MLU APCH have **no** Flight Data Input Output (FDIO), “cleared as filed” may **not** be used

Continued on next page

ABBREVIATED DEPARTURE CLEARANCE *(Continued)*

Conditions (Cont'd)

JO 7110.65,
par. 4-3-3

- Destination airport information **must** be relayed between facilities:
 - When flight will depart IFR
 - Prior to departure

✈ Phraseology Example

PHRASEOLOGY EXAMPLE – INTERPHONE CALLS

ZAE FDU or tower calls center:

“Request clearance for Northwest Four Sixty-One to Memphis Airport.”

OR

Center preparing to initiate clearance to tower or ZAE FDU:

“Clearance for American Four Sixty-One to Memphis Airport.”

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- Assigned altitude is **always** stated in an abbreviated clearance
- ⊙ If it is necessary to modify a filed flight plan in order to achieve computer acceptance, include the following in remarks:
 - FRC - Full Route Clearance necessary, or
 - FRC/(fix) - Full Route Clearance until the initial fix
 - It **must always** be the first item of intracenter remarks

NOTE: The remarks section of a flight plan, including FRC, will be covered in more detail in the Computer Messages lesson.

- The controller **must** issue a full route clearance to the specified fix or the destination airport
- ⊙ Specify the destination airport in the clearance.

Continued on next page

ABBREVIATED DEPARTURE CLEARANCE *(Continued)*

Conditions (Cont'd)

JO 7110.65,
par. 4-3-3

⊙ Restrictions for use of abbreviated departure clearances.

- Do **not** use abbreviated clearances:
 - For pilots requesting detailed clearance
 - For military operations conducted within:
 - Altitude reservations
 - Stereo routes
 - Operations above FL600
 - Other operations requiring special handling

NOTE: Military operations will be covered in later lessons and courses.

- When “FRC” appears in the remarks section (space 26) of the flight progress strip

Knowledge Check

KNOWLEDGE CHECK

- ❓ **QUESTION:** Which of the following is **not** a condition for issuing an abbreviated departure clearance?
- A. The destination airport must be relayed between facilities prior to departure.
 - B. All ATC facilities concerned have sufficient route information to exercise control responsibilities.
 - C. The clearance must be confirmed by the pilot.

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DEPARTURE RESTRICTIONS

**Clearance
Void Time**
JO 7110.65,
par. 4-3-4

✈
**Phraseology
Example**

CLEARANCE VOID TIME EXAMPLE						
N519BS C182/A T180 66 01	EDC 1530	$\Delta 150/\Rightarrow V427$ $V < 1540(50)$ $1530 /$ 0M8 P1530	$\uparrow 90$ $\times 18NW$ MHZ ± 60	MHZ 90	0M8 MHZ V18 KMEI/0043 \wedge V427	D-A
<p>"Cessna Five One Niner Bravo Sierra, cleared from Byerley Airport to Meridian Airport via when entering controlled airspace, fly heading one five zero until joining Victor Four Twenty-Seven, Victor Four Twenty-Seven, Magnolia, then as filed. Cross One Eight miles northwest Magnolia VORTAC established on Victor Four Twenty-Seven at or above six thousand. Climb and maintain niner thousand. Clearance void if not off by one five four zero. If not off by one five four zero, advise Aero Center not later than one five five zero of intentions. Verify this clearance will allow compliance with local traffic pattern and terrain or obstruction avoidance. Advise (ACID) Released for Departure, Contact AERO Center One Two Five Point Zero."</p>						
N519BS C182/A T180 66 02	0M8 1530 +18	$\uparrow 90$ $\times 18NW$ ± 60 $\uparrow 90$	MEI 90	0M8 MHZ V18 KMEI/0043 \wedge V427		

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NOTE: Coordinate before issuing clearance.

- ⊙ Assign the following for separation or to restrict/regulate departure flows:
 - Clearance void time
 - At airports **not** served by a tower:
 - Provide alternative instructions
 - Request the pilot to advise ATC of intentions **no later than 30** minutes after the clearance void time if **not** airborne
 - The facility delivering a void time to a pilot **must** issue a time check

Continued on next page

DEPARTURE RESTRICTIONS *(Continued)*

Clearance Void Time (Cont'd)

JO 7110.65,
par. 4-3-4



Phraseology

“CLEARANCE VOID IF NOT OFF BY (clearance void time),

and if required,

“IF NOT OFF BY (clearance void time), ADVISE (facility) NOT LATER THAN (time) OF INTENTIONS.

TIME (time in hours, minutes, and nearest quarter minute).”

Note: When issuing a void time if the time to "Advise" is in the following hour the time is written using four digits

➤ V<1655(1700)

Continued on next page

DEPARTURE RESTRICTIONS *(Continued)*

Hold For Release

JO 7110.65,
par. 4-3-4



Phraseology Example

HOLD FOR RELEASE EXAMPLE 1

N359DB		↑	↑160 X8NE SQS ↓70	UJM	KGWO SQS V9 UJM KSUS/0124	D-A
PAY3/A T260 66		HFR 2 min 2214 /				
01		KGWO P2214	↑160	160		

“November Three Five Niner Delta Bravo, cleared to Spirit of St. Louis Airport as filed via Sidon. Cross eight miles northeast Sidon VORTAC at or below seven thousand. Climb and maintain one six thousand. **Hold for release, expect two minute departure delay.**”

N359DB		↑	↑160 X8NE SQS ↓70	UJM	KGWO SQS V9 UJM KSUS/0124	D-A
PAY3/A T260 66		HFR 2 min 2214 /				
01		KGWO P2214	↑160	160		

To release the aircraft to another controller:
“November Three Five Niner Delta Bravo, released.”

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NOTE: Coordinate before issuing clearance.

- Hold For Release (HFR)
 - Use this to inform a pilot or controller that a departure clearance is **not** valid until additional instructions are received
 - Include departure delay information



Phraseology

“(Clearance information) HOLD FOR RELEASE, EXPECT (time in hours and/or minutes) DEPARTURE DELAY.”



Phraseology Example

“FedEx Twenty, cleared to Memphis Airport as filed, maintain one two thousand. Hold for release, expect one zero minute departure delay.”

- Release aircraft as soon as conditions permit
- To another controller:



Phraseology

“(Aircraft identification) RELEASED.”

Continued on next page

DEPARTURE RESTRICTIONS *(Continued)*

Hold For Release (Cont'd)

JO 7110.65,
par. 4-3-4



Phraseology Example

HOLD FOR RELEASE EXAMPLE 2

N53G BE60/A T210 66 01	<div style="text-align: center;">↑</div> HFR 10 min <div style="border: 1px solid red; border-radius: 50%; padding: 2px; display: inline-block;">1218</div> / KVKS P1218	↑80 <div style="border: 1px solid red; border-radius: 50%; padding: 2px; display: inline-block;">↑80</div>	HEZ 80	KVKS HEZ V245 KAEX/0033 <div style="border: 1px solid red; border-radius: 50%; padding: 2px; display: inline-block;">HEZ026R</div>	D-A ZHU
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“November Five Three Golf, cleared from Vicksburg Airport to Alexandria Airport via Natchez zero two six radial, Natchez, then as filed. Climb and maintain eight thousand. Verify this clearance will allow compliance with local traffic pattern and terrain or obstruction avoidance. **Hold for release, expect one zero minute departure delay.**”

N53G BE60/A T210 66 01	<div style="text-align: center;">↑</div> HFR 10 min V<1225(30) <div style="border: 1px solid red; border-radius: 50%; padding: 2px; display: inline-block;">1218</div> / KVKS P1218	↑80 <div style="border: 1px solid red; border-radius: 50%; padding: 2px; display: inline-block;">↑80</div>	HEZ 80	KVKS HEZ V245 KAEX/0033 <div style="border: 1px solid red; border-radius: 50%; padding: 2px; display: inline-block;">HEZ026R</div>	D-A ZHU
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To release the aircraft to a Flight Data Communication Specialist:
“Advise November Five Three Golf, released for departure. Clearance void if not off by one two two five. If not off by one two two five, advise Aero Center not later than one two three zero of intentions.”

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NOTE: Coordinate before issuing clearance.

→ To a Flight Data Communication Specialist:



Phraseology

“ADVISE (aircraft identification) RELEASED FOR DEPARTURE.”

→ To a pilot at an airport **not** served by a control tower:



Phraseology

“(Aircraft identification) RELEASED FOR DEPARTURE.”

Continued on next page

DEPARTURE RESTRICTIONS *(Continued)*

Release Time

JO 7110.65,
par. 4-3-4,
Pilot/Controller
Glossary



Release Time is a departure time restriction issued to a pilot to separate a departing aircraft from other traffic.

- Release time
 - Issue this to specify the earliest time an aircraft may depart
 - The facility issuing a release time to a pilot **must** include a time check



Phraseology

“(Aircraft identification) RELEASED FOR DEPARTURE AT (time in hours and/or minutes),

and if required,

IF NOT OFF BY (time), ADVISE (facility) NOT LATER THAN (time) OF INTENTIONS.

TIME (time in hours, minutes, and nearest quarter minute).”



Phraseology Example

“Huffy Four Five, released for departure at one two one two.”

Expect Departure Clearance

JO 7340.2



Phraseology

- ⦿ When **not** able to issue a clearance at time of request, issue an Expect Departure Clearance (EDC) at the time the clearance can be expected from ATC.

“(ACID) EXPECT DEPARTURE CLEARANCE AT (TIME).”



Phraseology Example

“November Two Five Lima Romeo expect departure clearance at one three one seven.”

Continued on next page

DEPARTURE RESTRICTIONS *(Continued)*

Expect Departure Clearance Time

JO 7110.65, par. 4-3-4 d & e, Pilot/Controller Glossary



Expect Departure Clearance Time (EDCT) is the runway release time assigned to an aircraft in a traffic management program and shown on the flight progress strip as an EDCT.

- ⦿ When EDCTs are assigned through traffic management programs multiple facilities are required to meet timing criteria.
 - ⦿ Do not release an aircraft on their assigned EDCT if a ground stop for that aircraft is in effect, unless approval from the ground stop originator is received.
-

Ground Stop

JO 7110.65, par. 4-3-5, Pilot/Controller Glossary



Ground Stop (GS) The GS is a process that requires aircraft that meet a specific criteria to remain on the ground. The criteria may be airport specific, airspace specific, or equipment specific; for example, all departures to San Francisco, or all departures entering Yorktown sector, or all Category I and II aircraft going to Charlotte. GSs normally occur with little or **no** warning.

- ⦿ If a Ground Stop (GS) applicable to an aircraft is in effect, do **not** release the aircraft without approval of the originator of the GS.
-

Call for Release

JO 7110.65, Pilot/Controller Glossary



Call for Release (CFR) Wherein the overlying ARTCC requires a terminal facility to initiate verbal coordination to secure ARTCC approval for release of a departure into the en route environment.

- ⦿ When CFR is in effect, release aircraft so that they are airborne within a window that extends from 2 minutes prior and ends 1 minute after the assigned time, unless otherwise coordinated.
-

Delay Sequencing

JO 7110.65, pars. 4-3-6, 4-3-7

- ⦿ If aircraft elect to take delay on the ground:
 - Issue departure clearances in the order of the original requests, if practicable
 - ⦿ Inform approach control facilities and/or towers of any anticipated delays.
-

DEPARTURE RESTRICTIONS *(Continued)*

Knowledge Check

KNOWLEDGE CHECK

❖ **QUESTION:** What is the phraseology to release an aircraft to another controller?

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KNOWLEDGE CHECK

❖ **QUESTION:** What is the phraseology to release an aircraft to an FDU specialist?

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KNOWLEDGE CHECK

❖ **QUESTION:** What is the phraseology to issue a release directly to a pilot at an airport with no control tower?

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Continued on next page

DEPARTURE RESTRICTIONS *(Continued)*

Knowledge
Check
(Cont'd)

KNOWLEDGE CHECK

❖ **QUESTION:** When you are unable to issue a departure clearance at the time of request, what phraseology is used to advise the aircraft when it can expect a departure clearance from ATC?

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KNOWLEDGE CHECK

❖ **QUESTION:** What is the phraseology to advise another controller or pilot a departure clearance is not valid until additional instructions are received?

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Continued on next page

DEPARTURE RESTRICTIONS *(Continued)*

Knowledge Check (Cont'd)

KNOWLEDGE CHECK

❖ **QUESTION:** What facility is responsible for issuing a time check to a pilot whose clearance includes a void time?

- A. The facility delivering the void time
- B. ARTCC
- C. The facility that establishes communications with the pilot once airborne

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KNOWLEDGE CHECK

❖ **QUESTION:** When aircraft elect to delay on the ground, how should a clearance be issued?

- A. Faster aircraft first
- B. Air carrier aircraft receive priority
- C. In order of request, if practicable

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COORDINATION WITH RECEIVING FACILITY

Coordination

JO 7110.65,
par. 4-3-8

- ⊙ Coordination is required prior to departure when the departure point is less than 15 minutes flying time from the transferring facility's boundary.
 - If automated data transfer is used, the time **may be reduced** to 5 minutes or replaced with mileage from the boundary parameter when agreeable to both facilities

Information Forwarded to Receiving Facility

JO 7110.65,
pars. 2-2-6, 4-3-8

- ⊙ Forward the following information to the receiving facility:
 - Aircraft identification
 - Point of departure
 - Either:
 - Assumed departure time
 - Subsequent fix posting time
 - Altitude data and applicable restrictions
 - Actual departure time
 - When time differs by **more than** 3 minutes from assumed departure time
 - ETA at destination airport, except:
 - Military
 - Scheduled air carriers

Continued on next page

COORDINATION WITH RECEIVING FACILITY *(Continued)*

Information Forwarded to Receiving Facility (Cont'd)
JO 7110.65, pars. 2-2-6, 2-4-12, 4-3-8

COORDINATION EXAMPLE 1									
Coordination of Departure with Multiple Strips									
N910PB C441/A T250 66 01	EDC 1652	↑		MHZ ↓ 160	KGWO SQS V9 MCB KMSY/0103				
			1652 /						
		KGWO P1652							
(In SQS bay)									
N910PB C441/A T250 66 02	GWO P1652 1652 +18	10 17		MCB ↓ ↑160 160	KGWO SQS V9 MCB KMSY/0103	ZHU			
		MHZ							
(In MHZ bay)									
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Phraseology Example

D66: "Picayune Low, Jackson Low APREQ."

PCU Low: "Picayune Low."

D66: "In suspense, November Niner One Zero Papa Bravo, estimated Magnolia VORTAC at one seven one zero, climbing to one six thousand."

PCU Low: "November Niner One Zero Papa Bravo climbing to one six thousand approved, GB."

D66: "LR."

Continued on next page

**Information
Forwarded to
Receiving
Facility
(Cont'd)**
JO 7110.65,
pars. 2-2-6, 4-3-8

COORDINATION EXAMPLE 2
Coordination of Assumed Departure Time

Entity	Assumed Departure Time	Scheduled Departure Time
N54DB	1600	1720
KJAN	1700	1600



Phraseology Example

D66: "D67, D66 APREQ."

D67: "D67."

D66: "In suspense, November Five Four Delta Bravo, assumed Jackson departure one six zero zero, climbing to eight thousand."

D67: "November Five Four Delta Bravo climbing to eight thousand approved, BH."

D66: "LR."

AIRFILE AIRCRAFT

Guidelines

JO 7110.65,
par. 4-2-9

- ⦿ Process airfile aircraft as follows:
 - Ensure aircraft is within your area of jurisdiction, unless coordinated
 - Obtain information necessary to provide IFR service
 - Issue clearance to:
 - Destination airport
 - Short-range clearance limit
 - Instruct pilot to contact Aero Center FDU to file IFR flight plan
-

EXERCISE: STRIPMARKING FOR DEPARTURES

Exercise

DEPARTURES EXERCISE



Purpose: to practice marking flight progress strips for departure clearances

Directions: complete the strips based on information provided by instructor

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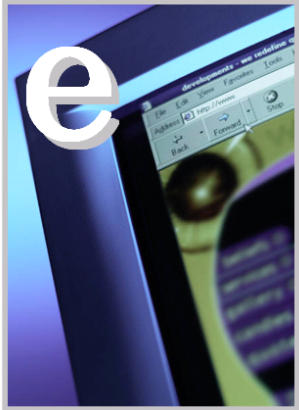
Directions

In this exercise, you will practice marking strips based on departure clearances.

Your instructor will provide a set of flight progress strips. Students will be called to the board one at a time to coordinate and issue a clearance for each aircraft while marking the corresponding strip(s) appropriately.

ACTIVITY: DEPARTURE COORDINATION AND CLEARANCES

Activity



DEPARTURE COORDINATION AND CLEARANCES ACTIVITY

Purpose: to ensure understanding of departure coordination, clearance procedures, and phraseology

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Description

In this activity, you will practice identifying and using the correct phraseology for departure clearances. In addition, you will work with the stripmarking associated with departures.

Directions

Access the IET eLearning menu. Select **Lesson 12 – Departure Procedures**. Click on the title to launch the **Departure Coordination and Clearances** activity.

Time Allotted

30 minutes

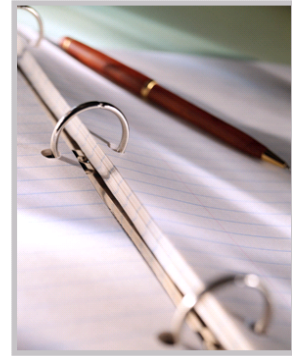
IN CONCLUSION

Lesson Review

LESSON REVIEW

The following topics were covered in this lesson:

- Initial departure instructions
- Abbreviated departure clearance
- Departure restrictions
- Coordination with receiving facility

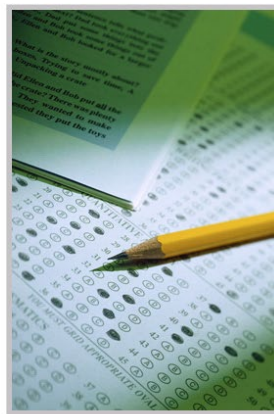


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End-of-Lesson Test

END-OF-LESSON TEST

Departure Procedures



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