



**Federal Aviation
Administration**

***55054003
EN ROUTE
RADAR ASSOCIATE
CONTROLLER TRAINING PART C:
ADVANCED CONCEPTS***

**Lesson 3: Introduction to En Route
Decision Support Tool (EDST) Part 2**










Version: 1.0 2022.08

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LESSON PLAN DATA SHEET

Course Name	En Route Radar Associate Controller Training Part C: Advanced Concepts
Course Number	55054003
Lesson Title	Review of En Route Decision Support Tool Part 2
Duration	2 hours 45 minutes (includes lesson, ELT, and part-task exercise)
Version	1.0 2022.08
Reference(s)	TI 6110.101, En Route Automation Modernization RA-Position User Manual; TI 6110.108, ERAM Quick Reference Controller Card; ERAM ATCHI MISC 230.05, ERAM SRS Air Traffic Computer-Human Interface; ERAM CONFLICT AD 220.03, ERAM Conflict Management, Off-Line Problem Determination, and Utility Algorithms; ERAM ADAPT AD 220.04, ERAM Adaptation Algorithms
Prerequisites	NONE
Handout(s)	<ul style="list-style-type: none"> ⦿ Part-Task Exercise: ⦿ TI 6110.108, ERAM Quick Reference Controller Card
Exercise / Activity	Refer to handout for:
	<ul style="list-style-type: none"> ⦿ Part-Task Exercise: Review of En Route Decision Support Tool Part 2 ⦿ Run scenario 55054003_L03_S## in the TTL
Assessments	<ul style="list-style-type: none"> ⦿ YES - Written
Materials and Equipment	<ul style="list-style-type: none"> ⦿ Pen and/or pencil
Other Pertinent Information	<ul style="list-style-type: none"> ⦿ Ensure lesson materials are downloaded to the classroom computer ⦿ Appendix A - TABLE 13-1-1, Clearance Abbreviations ⦿ Appendix B - TABLE 13-1-2, Miscellaneous Abbreviations ⦿ Appendix C - TABLE 13-1-3, EDST Equivalents for Control Information Symbols ⦿ Appendix D - Select Manual Strip Marking with EDST Equivalents ⦿ This lesson is based on ERAM EAE410 ⦿ The lesson has been reviewed and reflects current orders and manuals as of April 2022

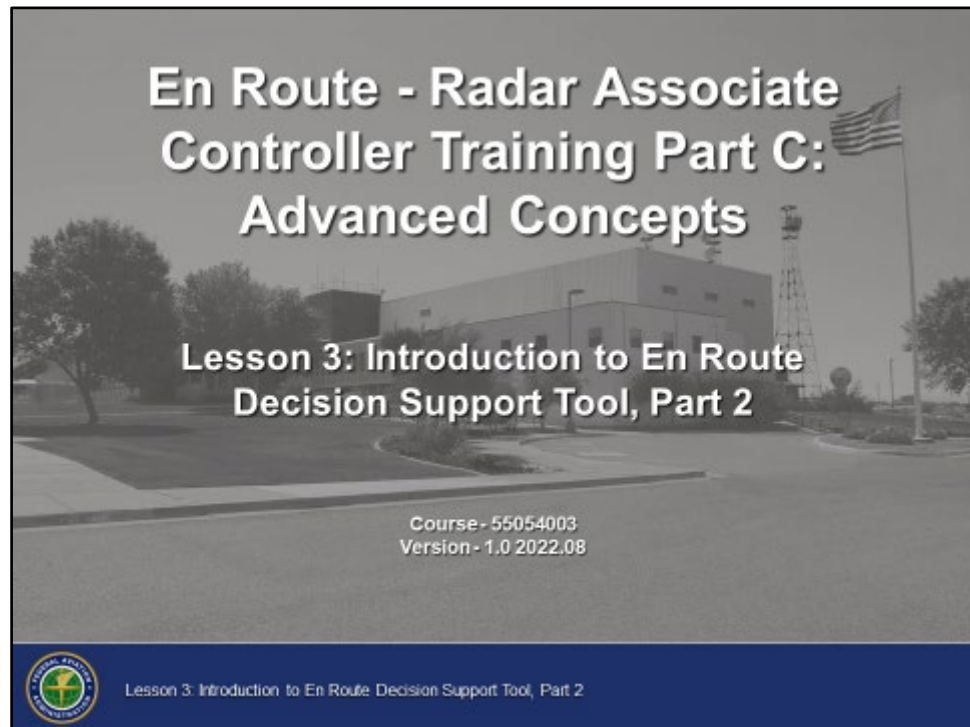
LESSON ICON LEGEND

	Description
	The Activity icon indicates an exercise, lab, or hands-on activity.
	The Discussion Question icon signals a discussion question to be asked to the students.
	The Handout icon indicates a handout is to be distributed to the students.
	The Instructor Note icon is in hidden text and indicates text that is for the instructor only.
	The Multimedia icon indicates a video or audio clip is in the presentation.
	The Phraseology icon indicates that phraseology is in the content.
	The WBT icon indicates a component of web-based training.
	The Click icon indicates a PPT slide with click-based functionality to present additional information.
	The Definition icon indicates a published definition.

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LESSON INTRODUCTION

Overview



En Route Decision Support Tool (EDST) is the interface at the Radar Associate (RA) position. Sector teams use EDST in performing their strategic planning responsibilities.

In Lesson 2, Introduction to EDST Part 1, you learned how this tool derives expected aircraft trajectories to predict conflicts.

This lesson will cover the Tools Menu and how to manage airspace, airport stream filters, and restrictions. In addition you will learn about NOTAM, GI, and SIGMET views, the Wind Grid, the Graphic Plan Display, and free form text.

LESSON INTRODUCTION (CONT'D)

Lesson Objectives

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At the end of this lesson, you will be able to identify:

- Features of the Tools Menu
- Steps to interact with NOTAMs, GIs, and SIGMETs views
- Weather and altimeter displays of EDST
- Functions of the Graphic Plan Display
- EDST free form text



Lesson 3: Introduction to En Route Decision Support Tool, Part 2

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- ⦿ At the end of this lesson, you be able to identify:
 - Features of the Tools Menu
 - Steps to interact with NOTAMs, GIs, and SIGMETs views
 - Weather and altimeter displays of EDST
 - Functions of the Graphic Plan Display (GPD)
 - EDST free form text

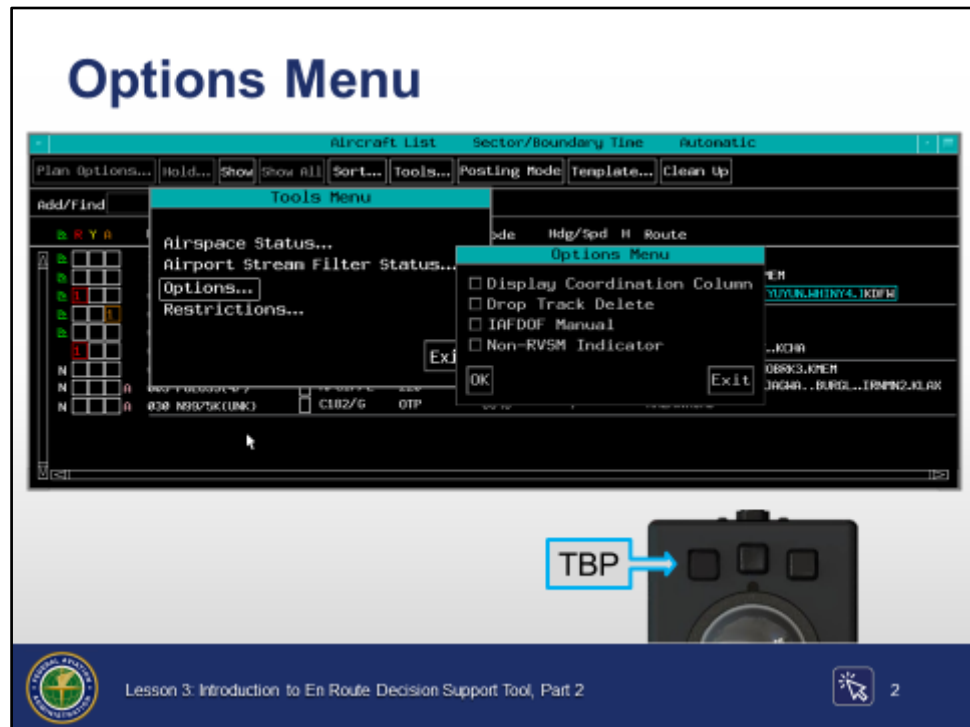
NOTE: There will be a graded end-of-lesson test upon completion of the lesson. The passing score is 70%. If you do not achieve a score of 70%, you will be provided study time and one retake of an alternate end-of-lesson test.

TOOLS MENU

Options Menu

TI 6110.101,
sec. 4.21.3

ERAM ATCHI
MISC 230.05,
par. 3.7.17.6



- ⦿ Tools... button on the ACL menu bar is used to open the Tools Menu
- ⦿ The Tools Menu is opened via:
 - TBP Tools...>Options...
- ⦿ Options Menu has four selection boxes:
 - Display Coordination Column
 - TBP to display the coordination column in the ACL
 - Drop Track Delete
 - TBP to specify whether dropped tracks are to be deleted immediately from the ACL vs. the default mode of timing out from the ACL

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TOOLS MENU (CONT'D)

Options Menu (Cont'd)

TI 6110.101,
sec. 4.21.3

JO 7110.65, par.
13-1-9

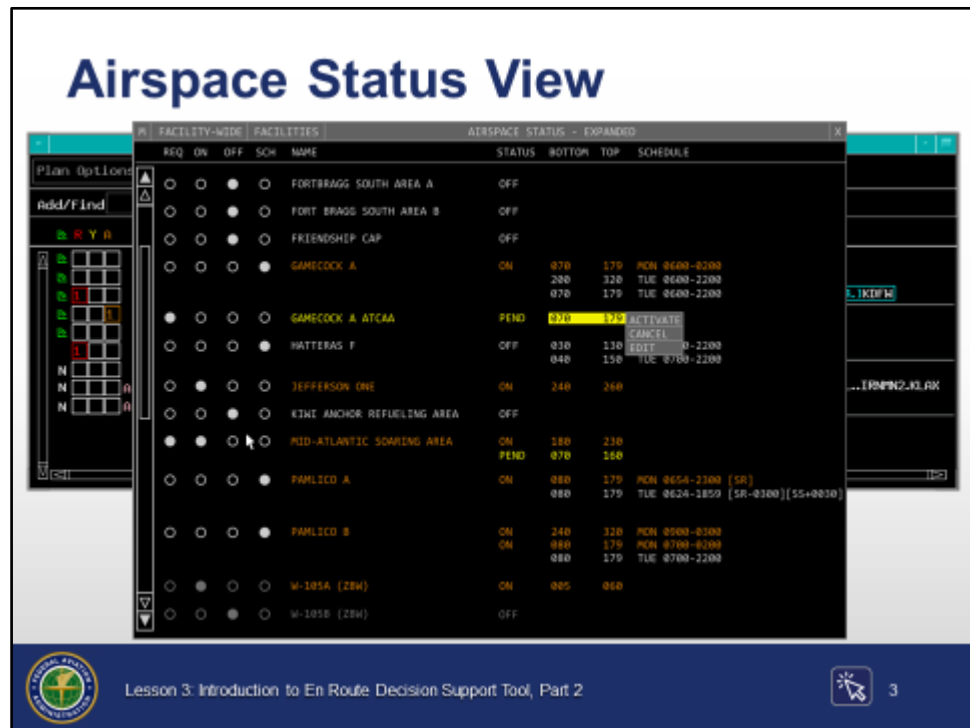
ERAM ATCHI
MISC 230.05,
par. 3.8.46

- IAFDOF Manual
 - TBP to change automatic IAFDOF indication to manual mode
 - In manual mode you apply or remove the two states of IAFDOF coding indicated by yellow and muted yellow colors
 - EDST Inappropriate Altitude for Direction of Flight (IAFDOF) feature must be used in the automatic mode (i.e., IAFDOF Manual must remain deselected) unless otherwise authorized in a facility directive
 - Non-RVSM Indicator
 - When your sector does not contain RVSM altitudes, you have the option to display the non-RVSM indicator on the ACL for flights expected to enter RVSM airspace
 - The non-RVSM indicator is a coral box displayed to the right of the altitude field when a flight is not equipped for RVSM flight and the FP assigned altitude, interim altitude, or reported altitude (Mode C or pilot reported) is at or above FL290
 - TBP the Non-RVSM Indicator box to display non-RVSM coding on the ACL and GPD
 - If your sector contains RVSM altitudes, this menu item will be grayed out
-

TOOLS MENU (CONT'D)

Airspace Status View

TI 6110.101,
sec. 4.21.1



- ⦿ The Airspace Status View is opened via:
 - TBP Tools...>Airspace Status
 - This view allows you to see the current and planned use of Special Activity Airspace (SAAs)
- ⦿ Designated RA positions may have the capability to:
 - Change the status of SAAs
 - Modify the schedules of SAAs
 - Change the altitude limits of SAAs
- ⦿ You may filter the display between SAAs that are of operational interest to the sector position and all the SAAs in the local facility
 - You may also be able to display SAAs of adjacent facilities

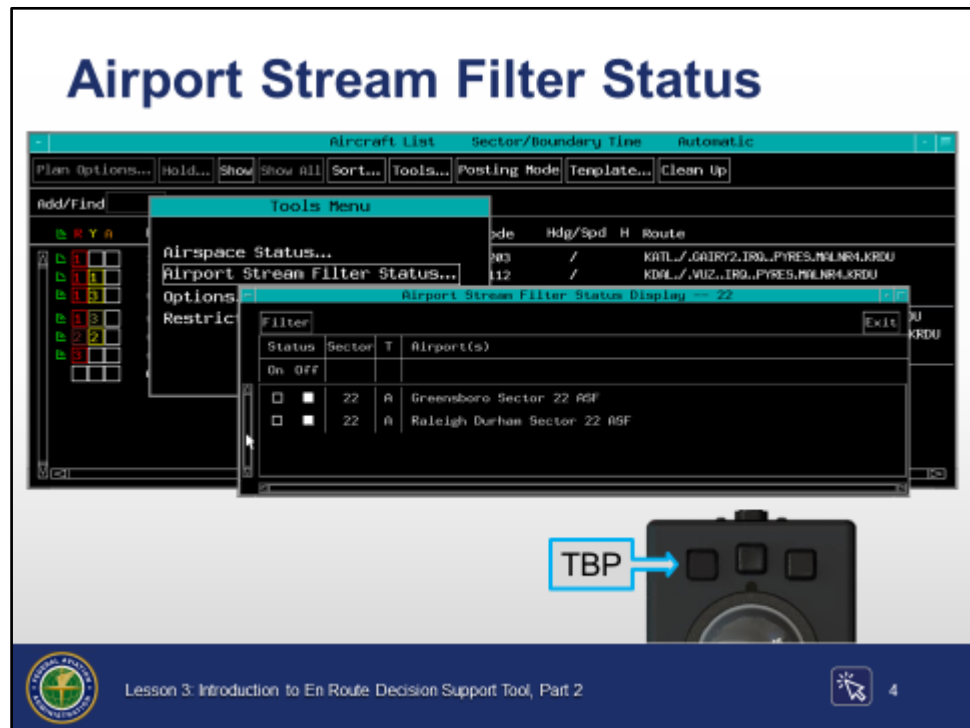
NOTE: The Airspace Status View will be covered in detail in a future lesson.

TOOLS MENU (CONT'D)

Airport Stream Filter Status Display

TI 6110.101,
sec. 4.21.2

ERAM ADAPT
AD 220.04,
par. 2.7.1.2.2.1



AIRPORT STREAM FILTERS (ASF) - An on/off filter that allows the conflict notification function to be inhibited for aircraft-to-aircraft alerts approaching an adapted set of destination airport(s) or departing an adapted set of departure airport(s) to prevent nuisance alerts.

NOTE: Airport stream filters might not be adapted at your facility and/or sector position. If the ASF for a sector position is on, aircraft-to-aircraft alerts for the specified aircraft are inhibited when the initial points of violation are within airspace assigned to the sector position.

⦿ The Airport Stream Filter Status Display is opened via:

- TBP Tools...>Airport Stream Filter Status...

NOTE: Conflict probe can produce nuisance alerts at sectors with heavy arrival and/or departure traffic.

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TOOLS MENU (CONT'D)

Airport Stream Filter Status Display (Cont'd)

TI 6110.101,
sec. 4.21.2

ERAM ATCHI
MISC 230.05,
par. 3.7.2

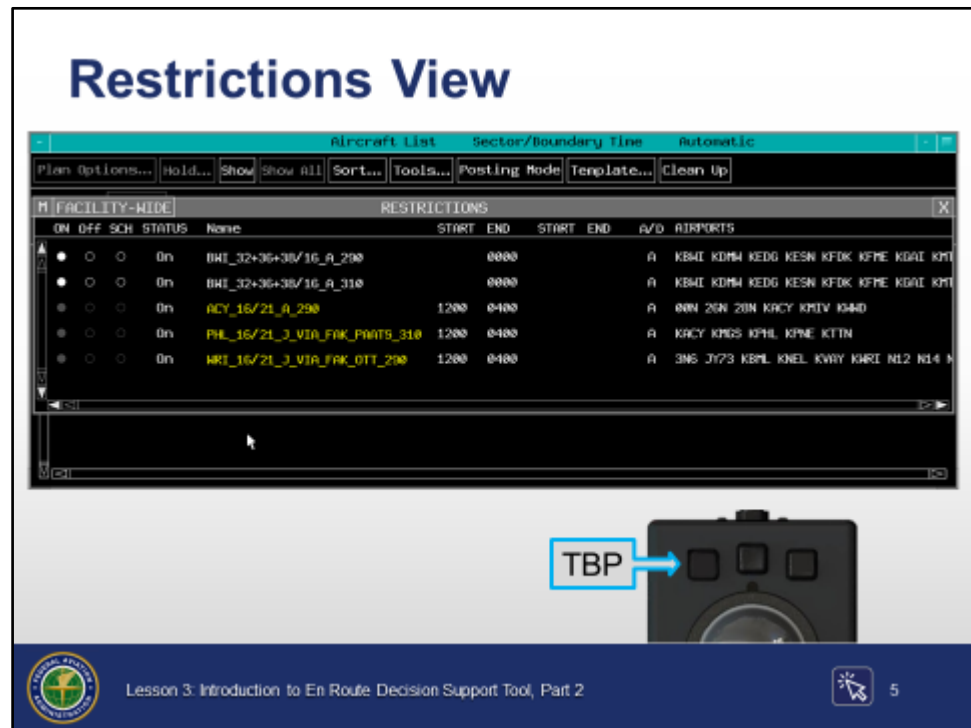
- ⊙ Airport stream filter status display columns:
 - Status
 - Changes the status from on to off
 - Sector
 - Displays sector number servicing the airport(s)
 - “T”
 - Displays “A” for arrival or “D” for departure
 - Airport(s)
 - Displays unique description for each filter
 - ⊙ Airport stream filter status display buttons:
 - Filter
 - Shows facility-wide ASF status
 - Exit
 - Removes the filter display
 - ⊙ To apply the filter to a specific airport:
 - TBP “On” radio button
 - All aircraft-to-aircraft alerts between flights meeting the criteria are suppressed
-

TOOLS MENU (CONT'D)

Restrictions View

TI 6110.101,
sec. 4.21.4

ERAM ATCHI
MISC 230.05,
par. 19



⦿ The Restrictions View:

- Is opened via:
 - TBP Flight ID
 - TBP Tools...>Restrictions
- Provides altitude and speed restrictions to model the trajectory based on Letters of Agreement (LOAs) and Standard Operating Procedures (SOPs)
- Allows you to turn restrictions on/off or revert to the prior setting on the restrictions
 - If FACILITY-WIDE is displayed
 - View contains all of the restrictions that apply to the facility
 - If SECTOR (sector ID) is displayed
 - View contains only those restrictions for the sector

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TOOLS MENU (CONT'D)

Restrictions View (Cont'd)

TI 6110.101,
sec. 4.21.4

ERAM ATCHI
MISC 230.05,
par. 19

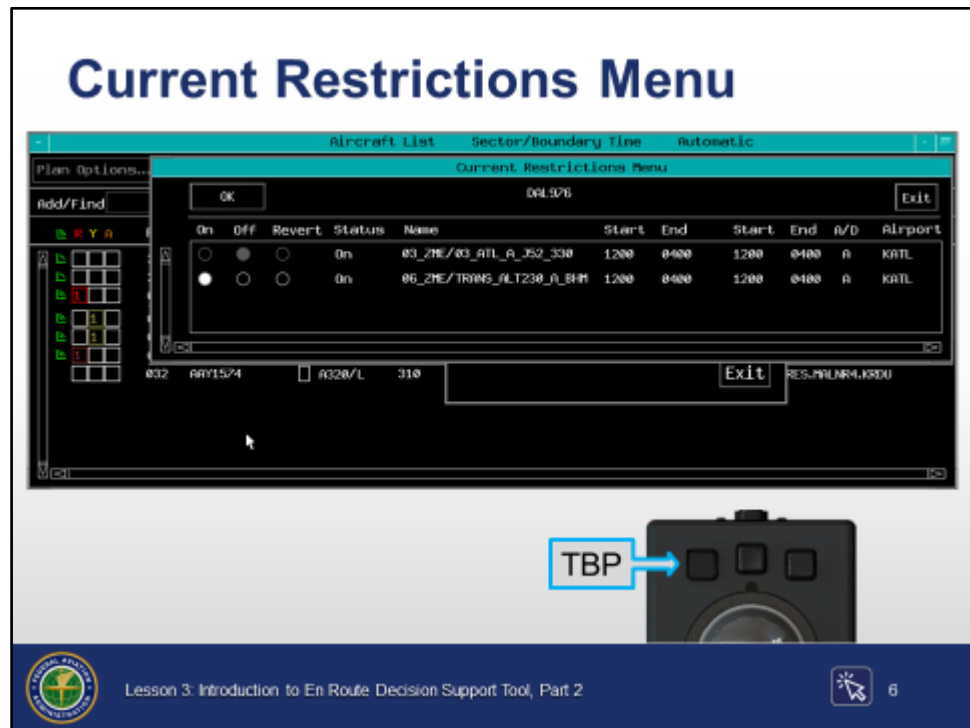
- ⊙ If you cannot change the status of a restriction, its radio buttons are gray
 - ⊙ The view has eight columns:
 - ON
 - Restrictions are always on (overriding the scheduled restrictions)
 - OFF
 - Restrictions off (overriding the scheduled restrictions)
 - SCH
 - Time restrictions turn on and off based on adaptation
 - STATUS
 - Current status of the restriction
 - ON (active)
 - OFF (not active)
 - NAME
 - Name of the restriction in adaptation
 - START END
 - Times the restrictions are scheduled to be on or active
 - A restriction can be scheduled to be active for two separate time periods
 - START indicates the time if set to scheduled SCH
 - END indicates the time restriction will no longer apply
 - A/D
 - Indicates arrival and/or departure
 - AIRPORTS
 - Displays the airports that are affected by the restriction
-

TOOLS MENU (CONT'D)

Current Restrictions Menu

TI 6110.101,
sec. 4.21.4

ERAM ADAPT
AD 220.04, par.
2.7.1.2.4.1



⦿ The Current Restrictions Menu:

- Opened via:
 - TBP Flight ID
 - TBP Tools...>Restrictions
- Provides altitude and speed restrictions modeled for a specific flight
 - Allows you to turn restrictions on/off or revert to the prior setting
- The radio buttons operate in a similar fashion as the Restrictions View except:
 - Revert is unique to the Current Restrictions Menu
 - When selected, the aircraft reverts back to the current restriction display schedule


TOOLS MENU (CONT'D)

Knowledge Check


Knowledge Check

What is displayed in the Current Restrictions view?

- A. Restrictions you have verbally placed on other sectors
- B. Center-wide restrictions
- C. Adapted restrictions for a specific flight



Lesson 3: Introduction to En Route Decision Support Tool, Part 2

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Question: What is displayed in the Current Restrictions view?


TOOLS MENU (CONT'D)

Knowledge Check


Knowledge Check

What is the purpose of Airport Stream Filters?

- A. Suppresses aircraft-to-aircraft alerts for the specific airport(s)
- B. Filters the display to only show flights for a single airport
- C. Displays all entries following similar routes



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Question: What is the purpose of Airport Stream Filters?


TOOLS MENU (CONT'D)

Knowledge Check


Knowledge Check

Which view displays the status of active Special Activity Airspace?

- A. Flight Restrictions View
- B. Special Activity Area View
- C. Airspace Status View



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Question: Which view displays the status of active Special Activity Airspace?


TOOLS MENU (CONT'D)

Knowledge Check


Knowledge Check

What are the steps to set IAFDOF to manual?

- A. TBP Settings>Altitude>IAFDOF Manual
- B. TBP Tools...>Options...>IAFDOF Manual
- C. TBP Plans...>IAFDOF Manual



Lesson 3: Introduction to En Route Decision Support Tool, Part 2

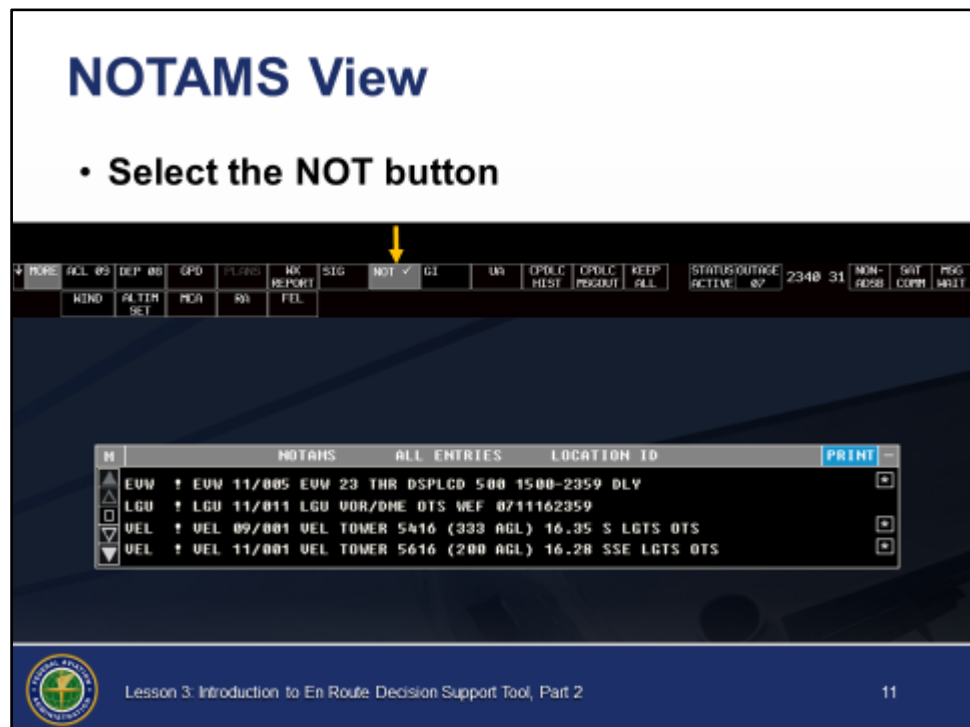
 10

Question: What are the steps to set IAFDOF to manual?

NOTAMS VIEW

NOTAMS View

TI 6110.101,
secs. 2.2, 4.5.1



- ⦿ The NOTAMS view is accessed through NOT button on the EDST toolbar
 - Initially displayed at a default location
 - Suppressed via the EDST NOT toolbar button

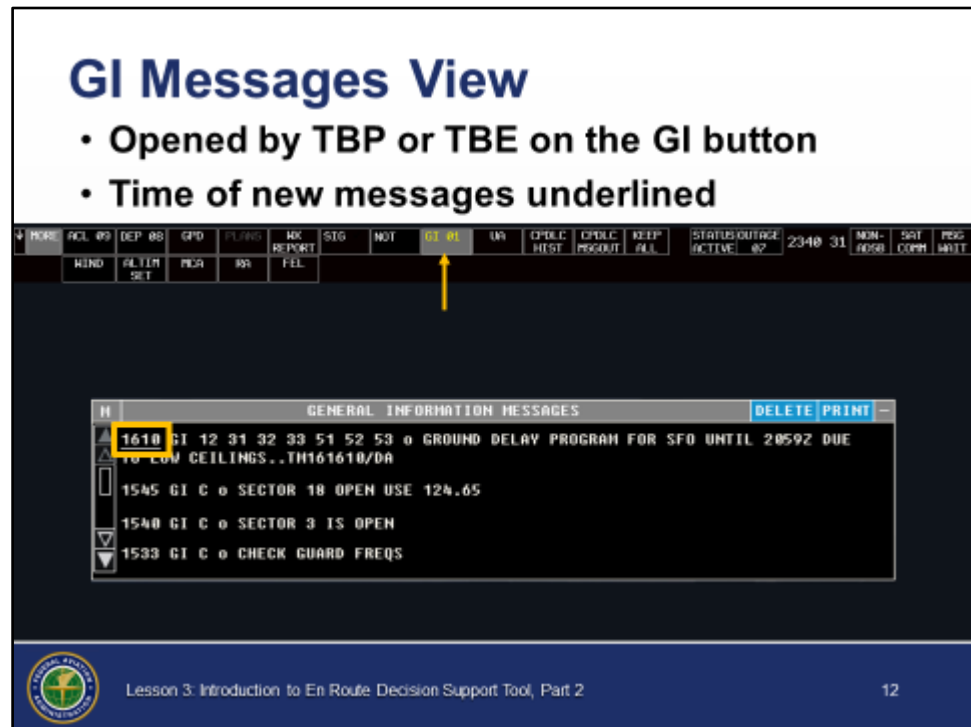
NOTE: Currently this function is not used and another method is used for NOTAMs. Specific instruction will be given in a later lesson.

- The NOT button is facility adaptable and might not be displayed in the toolbar

GENERAL INFORMATION (GI) MESSAGES VIEW

GI Messages View

TI 6110.101,
secs. 2.2, 4.6.1

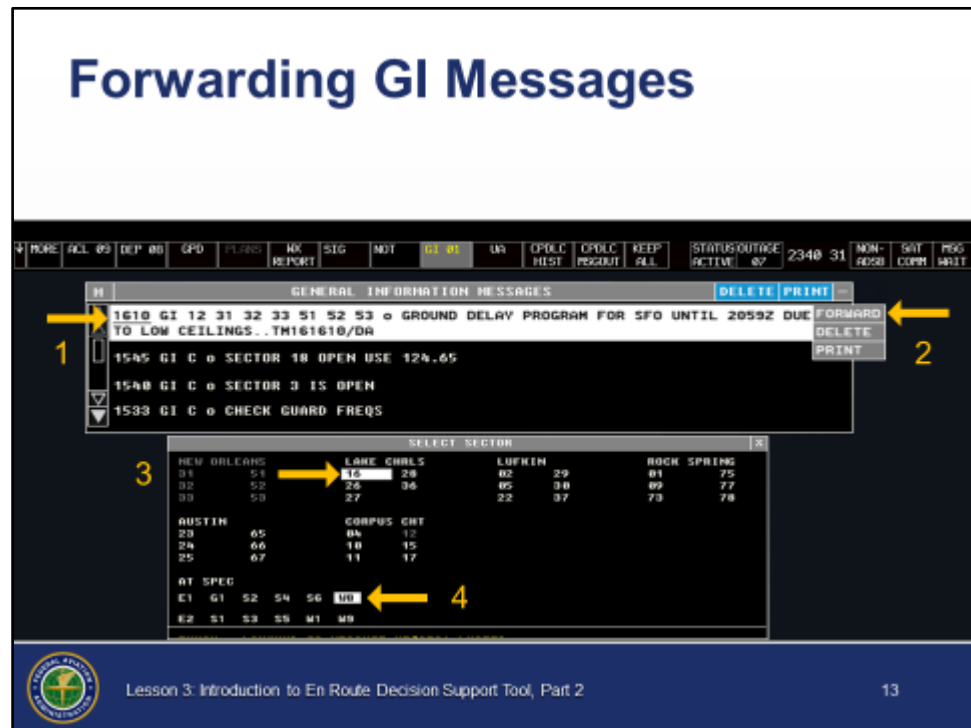


- ⊙ Toolbar GI button yellow text and number indicate new General Information (GI) message(s)
- ⊙ General Information Messages view is opened by TBP or TBE on the GI button
 - The view will be displayed at:
 - The previous location, or
 - The default location if the GI Messages view has not been displayed previously
- ⊙ A new GI message is indicated by an underline of the time the GI was sent
- ⊙ A new GI message may be acknowledged by TBP or TBE on the time GI was sent
 - New message coding for that message is removed
 - When all new GI messages have been acknowledged:
 - A white check mark “✓” replaces the number in the toolbar GI button
 - GI button text changes from yellow to white

GI MESSAGES VIEW (CONT'D)

Forwarding GI Messages

TI 6110.101,
sec. 4.6.2.1



- ⦿ GI messages may be forwarded to internal facility areas, sectors, and AT Specialist positions which have not previously received the message
- ⦿ To forward a GI message:
 - TBP on the message to be forwarded
 - When pop-up menu appears, TBP or TBE FORWARD
 - When SELECT SECTOR pop-up appears, TBP all but last sector, area, or AT Specialist position
 - TBE the last sector, area, or AT Specialist position
 - If the GI Message is being forwarded to a single position, TBE that position to forward the message

GI MESSAGES VIEW (CONT'D)

Deleting Single GI Message

TI 6110.101,
sec. 4.6.3.4

Deleting a Single GI Message

• TBP or TBE click entry, then...

MODE	ACL	OP	DEP	AB	GPD	PURD	NR	STG	NOT	GI	✓	UA	OPDL	CPDL	KEEP	STATUS	OUTAGE	2340	31	MON	SAT	POS
							REPORT						HIST	MSGOUT	ALL	ACTIVE	67			FEED	COMP	HAUT

1610 GI 12 31 32 33 51 52 53 o GROUND DELAY PROGRAM FOR SFO UNTIL 2059Z DUE TO LOW CEILINGS...TM161610/DA

1545 GI C o SECTOR 18 OPEN USE 124.65

1540 GI C o SECTOR 3 IS OPEN

1533 GI C o CHECK GUARD FREQS

FORWARD
DELETE
PRINT

Resulting GI Message View



1610 GI 12 31 32 33 51 52 53 o GROUND DELAY PROGRAM FOR SFO UNTIL 2059Z DUE TO LOW CEILINGS...TM161610/DA

1545 GI C o SECTOR 18 OPEN USE 124.65

1540 GI C o SECTOR 3 IS OPEN

1525 GI C o GROUND DELAY PROGRAM FOR EWR UNTIL 2150Z DUE TO LOW CEILINGS...TM161435/DA

DELETE
PRINT

 Lesson 3: Introduction to En Route Decision Support Tool, Part 2  14

⦿ To delete a single message:

- TBP or TBE entry to be deleted
- When pop-up menu appears TBP or TBE DELETE

NOTE: Deleting a GI Message removes the message from display at your sector only.

GI MESSAGES VIEW (CONT'D)

Deleting Multiple GI Messages

TI 6110.101,
sec. 4.6.3.4

Deleting Multiple GI Messages

HOME	ACL	OP	DEP	AB	GPD	PLANS	NR	REPORT	STG	NOT	GI	✓	UA	CPDL	CPDL	KEEP	STATUS	OUTAGE	ACTIVE	67	2340	31	NON	FEED	SAT	COM	POS
GENERAL INFORMATION MESSAGES																											
1610 GI 12 31 32 33 51 52 53 o GROUND DELAY PROGRAM FOR SFO UNTIL 2059Z DUE TO LOW CEILINGS...TM161610/DA																											
1545 GI C o SECTOR 18 OPEN USE 124.65																											
1540 GI C o SECTOR 3 IS OPEN																											
1525 GI C o GROUND DELAY PROGRAM FOR EWR UNTIL 2150Z DUE TO LOW CEILINGS...TM161435/DA																											
Resulting GI Message View																											
GENERAL INFORMATION MESSAGES																											
1610 GI 12 31 32 33 51 52 53 o GROUND DELAY PROGRAM FOR SFO UNTIL 2059Z DUE TO LOW CEILINGS...TM161610/DA																											
1525 GI C o GROUND DELAY PROGRAM FOR EWR UNTIL 2150Z DUE TO LOW CEILINGS...TM161435/DA																											

Lesson 3: Introduction to En Route Decision Support Tool, Part 2

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⦿ To delete multiple messages:


- TBP or TBE DELETE in the view header
- TBP on all entries to be deleted except the last entry
- TBE the last entry to be deleted

GI MESSAGES VIEW (CONT'D)



Knowledge Check

Knowledge Check

How are new GI Messages indicated on the GI button in the toolbar?



A. Yellow text and check mark
B. Yellow text and asterisk
C. Yellow text and number

 Lesson 3: Introduction to En Route Decision Support Tool, Part 2  16

Question: How are new GI Messages indicated on the GI button in the toolbar?

GI MESSAGES VIEW (CONT'D)

Knowledge Check

Knowledge Check

How can you delete multiple GI messages at one time?

- A. TBP or TBE each GI>TBE DELETE in the header
- B. TBP or TBE DELETE in the header>TBP each GI but the last>TBE the final GI
- C. TBH or TBE SELECT in header>TBE on each GI>TBE on final GI



Lesson 3: Introduction to En Route Decision Support Tool, Part 2



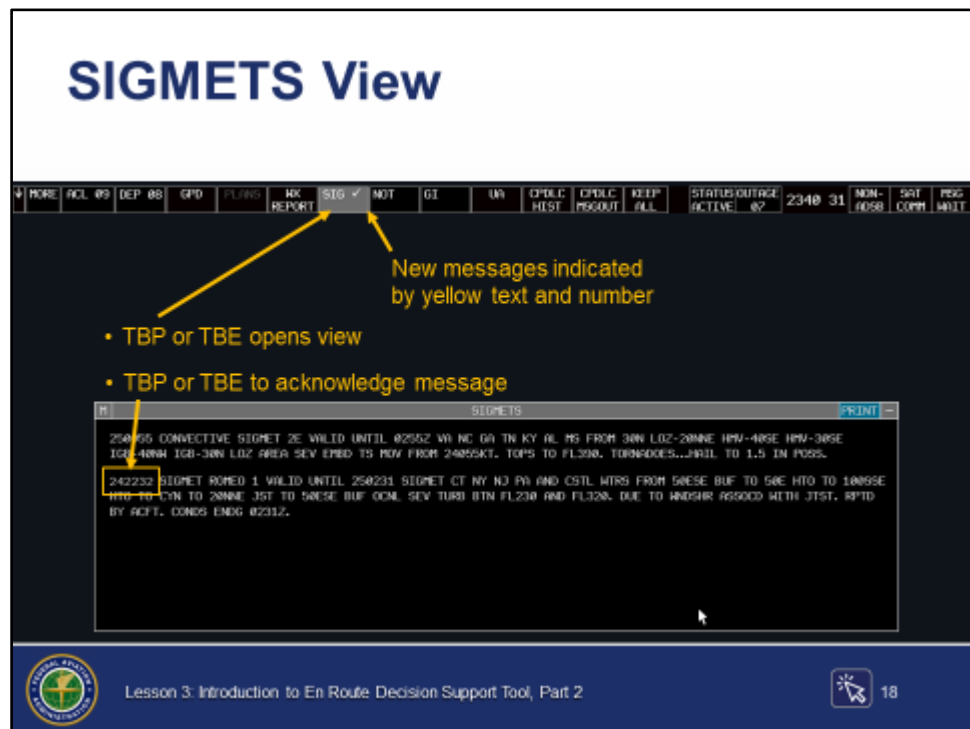
17

Question: How can you delete multiple GI messages at one time?

SIGMETS VIEW

SIGMETS View

TI 6110.101,
secs. 4.4.1,
4.4.3.4, 4.4.3.8



- ⊙ Toolbar SIG button yellow text and number indicate new message(s)
- ⊙ SIGMETS view is opened by TBP or TBE on the toolbar SIG button
 - The view will be displayed at:
 - The previous location, or
 - The default location, if the SIGMETS view has not been displayed previously
- ⊙ SIGMETS view entries include messages as follows:
 - SIGMETs (SIGMET/WS)
 - Convective SIGMETs (SIGMET/WST)
 - Airmen's Meteorological Information (AIRMET/WA)
 - Center Weather Advisories (CWA)
 - Urgent Pilot Weather Reports (Urgent PIREP/UUA)
 - Meteorological Impact Statements (MIS)

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SIGMETS VIEW (CONT'D)

SIGMETS View (Cont'd)

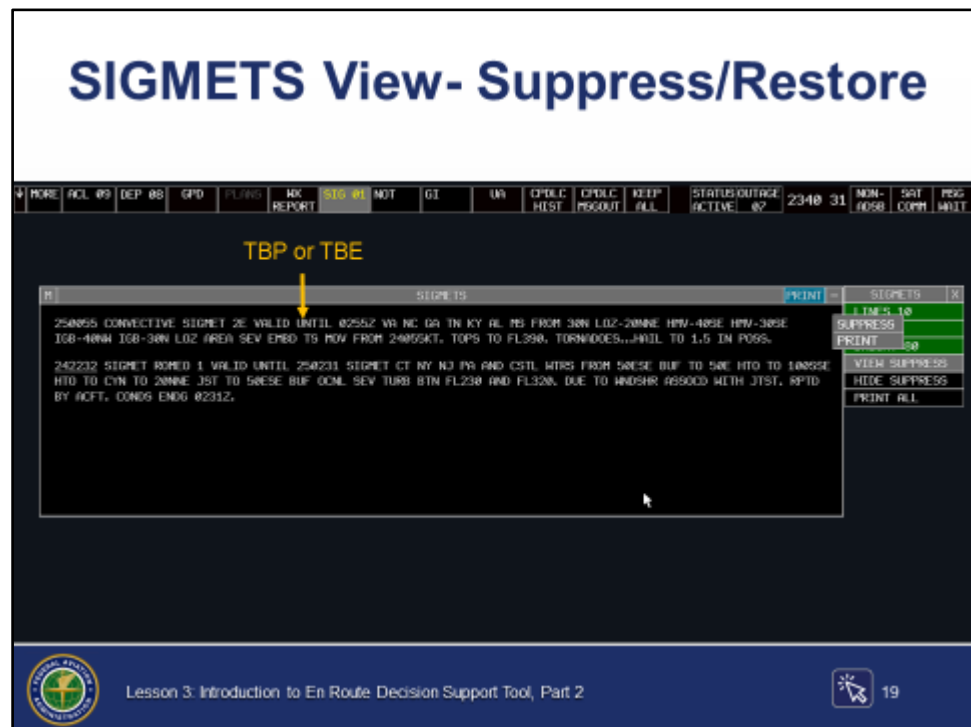
TI 6110.101,
secs. 4.4.3.4,
4.4.3.5, 4.4.3.8,
4.4.3.9

- A new SIGMET message is indicated by an underline of the time the message was sent
 - A new SIGMET message may be acknowledged by TBP or TBE on the time the message was sent
 - New message coding is removed
 - When all new messages have been acknowledged:
 - A white check mark “✓” replaces the number in the toolbar SIG button
 - SIG button text changes from yellow to white
-

SIGMETs VIEW (CONT'D)

SIGMETs View - Suppress/ Restore

TI 6110.101,
secs. 4.4.3.4,
4.4.3.5, 4.4.3.7,
4.4.3.8, 4.4.3.9



- ⦿ SIGMETs cannot be removed, only suppressed
- ⦿ Suppressing a SIGMET
 - Use TBP or TBE to select a SIGMET
 - Two pop-up pick areas appear: SUPPRESS and PRINT
 - TBP SUPPRESS
- ⦿ SIGMET entry is moved to suppressed area
 - The suppressed area is above the unsuppressed area and a gray line separates the areas
 - Dependent upon user setting, suppressed entries may be in view or hidden

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SIGMETS VIEW (CONT'D)

SIGMETS View- Suppress/ Restore (Cont'd)

TI 6110.101,
secs. 4.4.3.4,
4.4.3.5, 4.4.3.8,
4.4.3.9

- ⦿ Restore a suppressed SIGMET
 - If the VIEW SUPPRESS not activated
 - TBP or TBE the “M” in the view header
 - TBP or TBE VIEW SUPPRESS, all suppressed entries now appear above the gray line
 - TBP or TBE the desired SIGMET
 - Two pop-up pick areas appear: RESTORE and PRINT
 - TBP or TBE RESTORE
 - SIGMET entry is restored to the Unsuppressed SIGMET Entry Area
-

PRINTING - NOTAMS, GENERAL INFORMATION MESSAGES, AND SIGMETs

Printing - NOTAMs, GI Messages, and SIGMETs

TI 6110.101,
secs. 4.4.3.5,
4.5.3.7, 4.6.3.6

Printing - NOTAMs, GI Messages, and SIGMETs

HOME	ACL	DP	REP	AD	GPD	PLANS	NA	SIG	NOT	GI	UA	CPDLC	CPDLC	KEEP	STATUS	OUTAGE	2348	31	NON-	SAT	REG
							REPORT					REST	PERMIT	ALL	ACTIVE	BY			ADSD	COMM	HALE

NOTAMS

ALL ENTRIES LOCATION ID PRINT

74W 1 CDC 05/046 74W RWY LOTS POL KEY 122.8

EKR 1 DEN 10/052 EKR USB QTS

EUN 1 EUN 11/005 EUN 23 THR DISPLD 508 1580-2359 BLV

LDU 1 LDU 11/011 LGR VBR/DHE QTS REF 0711162059

REL 1 REL 09/001 UEL TOWER 5416 (203 AGL) 16.35 S LOTS QTS

REL 1 REL 11/001 UEL TOWER 5416 (200 AGL) 16.28 SSE LOTS QTS

RESTORE PRINT

GENERAL INFORMATION MESSAGES

DELETE/PRINT

1610 GI 12 31 32 33 51 52 53 0 GROUND DELAY PROGRAM FOR SFO UNTIL 2059Z DUE TO LOW CEILINGS..TMT61618/BA

1545 GI C 0 SECTOR 18 OPEN USE 124.65

1540 GI C 0 SECTOR 3 IS OPEN

1530 GI C 0 CHECK GROUND FREQS

FORWARD DELETE PRINT

SIGMETs

PRINT

121555 CORRECTIVE SIGMET SYE UNLID UNTIL 1755Z FL 04 AL NO LA AND FL AL NO LA


121610 OUTLOOK UNLID 121605-122355 FROM NW NW L22-SW-180W P1E-1305SE LGR-NWSE

121605 MSGR \\\0000LEU WS 121600 CANCEL SIGMET UNIFORM 2. COMMS BANC BANC.

121605 MSGR \\\0000LEU WS 121600 SIGMET UNIFORM 1 UNLID UNTIL 121655 00 NW FROM ONE TO TWO TO THREE TO INK TO ELP TO ONE 550 TO JND TO ONE OSM SEU TARD BLO

160 DUE TO STG HALY MMS OVR BUFF TRAM. STG UNOFS LKLY SE OF HGLNS BY 1515Z.

DSM PRINT



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⦿ You may print from all three views using the following options:

- Print a single entry
- Print multiple entries
- Print all entries

PRINTING - NOTAMS, GENERAL INFORMATION MESSAGES, AND SIGMETS (CONT'D)

Printing a Single Entry



TI 6110.101,
sec. 4.5.3.7

Printing a Single Entry

MOORE	ACL 09	DEP 08	GPD	PLANS	WX REPORT	SIG	NOT 01	GI	UA	CPDLC HIST	CPDLC MSGOUT	KEEP ALL	STATUS OUTAGE	ACTIVE 02	2348	31	NON-USE	SAT COMM	REG HOLD
-------	--------	--------	-----	-------	-----------	-----	--------	----	----	------------	--------------	----------	---------------	-----------	------	----	---------	----------	----------

H	NOTAMS	ALL ENTRIES	LOCATION ID	PRINT
740	! CDC 05/046 740 RWY LGTS PCL KEY 122.8			
ERR	! DEN 10/052 ERR VOR OTS			
EUM	! EUM 11/005 EUM 23 THR DSPLCD 500 1500-2359 DLY			SUPPRESS
LGV	! LGV 11/011 LGV VOR/DME OTS MEF 0711162359			PRINT
VEL	! VEL 09/001 VEL TOWER 5416 (333 AGL) 16.35 S LGTS OTS			
VEL	! VEL 11/001 VEL TOWER 5616 (200 AGL) 16.28 SSE LGTS OTS			

TBP or TBE PRINT - prints entry on a Flight Strip Printer

Lesson 3: Introduction to En Route Decision Support Tool, Part 221

- ⦿ To print a single entry:
 - TBP or TBE on entry
 - Within entry pop-up, TBP or TBE PRINT
 - Entry will print on a flight strip printer

NOTE: All entries are eligible for printing, including suppressed entries.


PRINTING - NOTAMS, GENERAL INFORMATION MESSAGES, AND SIGMETS (CONT'D)

Printing Multiple Entries

TI 6110.101,
sec. 4.4.3.5



Printing Multiple Entries

HOME	ACL	DS	DEP	AB	GPD	PLANS	WX	SIG	NOT	GI	GI	UA	CPDLC	CPDLC	KEEP	STATUS	OUTAGE	2340	31	NON-	SAT	MSG
							REPORT						REST	PERMIT	ALL	ACTIV	BY		NOISE	COMM	HAZ	



H	GENERAL INFORMATION MESSAGES	DELETE	PRINT
▲	1610 GI 12 31 32 33 51 52 53 o GROUND DELAY PROGRAM FOR SFO UNTIL 2059Z DUE TO LOW CEILINGS...TH161610/DA		
□	1545 GI C o SECTOR 18 OPEN USE 124.65		
▼	1540 GI C o SECTOR 3 IS OPEN		
▼	1533 GI C o CHECK GUARD FREQS		

- TBP on all entries, except last entry, to be printed
- TBE on last entry to be printed

 Lesson 3: Introduction to En Route Decision Support Tool, Part 2  22

- To print multiple entries:
 - TBP or TBE PRINT button in title bar
 - TBP all entries, except last entry, to be printed
 - TBE last entry to be printed

PRINTING - NOTAMS, GENERAL INFORMATION MESSAGES, AND SIGMETs (CONT'D)

Printing All Entries

TI 6110.101,
sec. 4.4.3.5


Printing All Entries

HOMEACL #9DEP #8GPDPLANSRK REPORTSIG ✓NOTGIUNCPDLC MUSTCPDLC MSGOUTKEEP ALLSTATUSOUTAGEACTIVE 672340 31NON-16050SAT COMMMSG HAIT

All entries will print after TBE on PRINT ALL button

H	SIGMETs	PRINT	SIGMETs	X
▲	121555 CONVECTIVE SIGMET 570 VALID UNTIL 1755Z FL 00 AL MS LA AND FL AL MS LA CSTL MTAS FROM 10050 U02-90MMW NCH-00SE LEU-120MMW LEU-100SE U02 AREA SEV EMBO TS MOV FROM 23000KT. TOPS ADV FLAS0. TORNADOES...HAIL TO 1.5 IN...WIND GUST 60KT POSS. REF INTL SIGMET BRAVO SERIES.		LINES 13	
			FONT 3	
			BRIGHT 100	
			VIEW SUPPRESS	
			HIDE SUPPRESS	
			PRINT ALL	

121610 OUTLOOK VALID 121655-122355 FROM 40 NM LOZ-SAV-160W PIE-1305SE LCH-4050E NCD-50MMW ICB-5050E LIT-ARC-40MMW LOZ REF WV 057 050.
121605 USSU \0036SLCU WS 121600 CANCEL SIGMET UNIFORM 2. CONDS HAVE DMSD.
121655 USSU \0036SLCU WS 121600 SIGMET UNIFORM 1 VALID UNTIL 121655 CO NM FROM CHE TO AKO TO 30SE TBE TO INK TO ELP TO 30E SSO TO JNC TO CHE DCHL SEV TURB BLO 160 DUE TO STG HAVY WINDS OUR RUFF TRRN. STG UDDFS LKLY SE OF RDGLMS BY 1515Z. DSM

Lesson 3: Introduction to En Route Decision Support Tool, Part 223

- ⦿ To print all entries:
 - TBP or TBE the “M” pick area in the view header
 - TBP or TBE PRINT ALL button



PRINTING - NOTAMS, GENERAL INFORMATION MESSAGES, AND SIGMETS (CONT'D)

Knowledge Check

Knowledge Check

When printing more than one GI message, _____ on all except _____ on the last entry.

- A. TBP; TBE
- B. TBP; TBP
- C. TBE; TBE

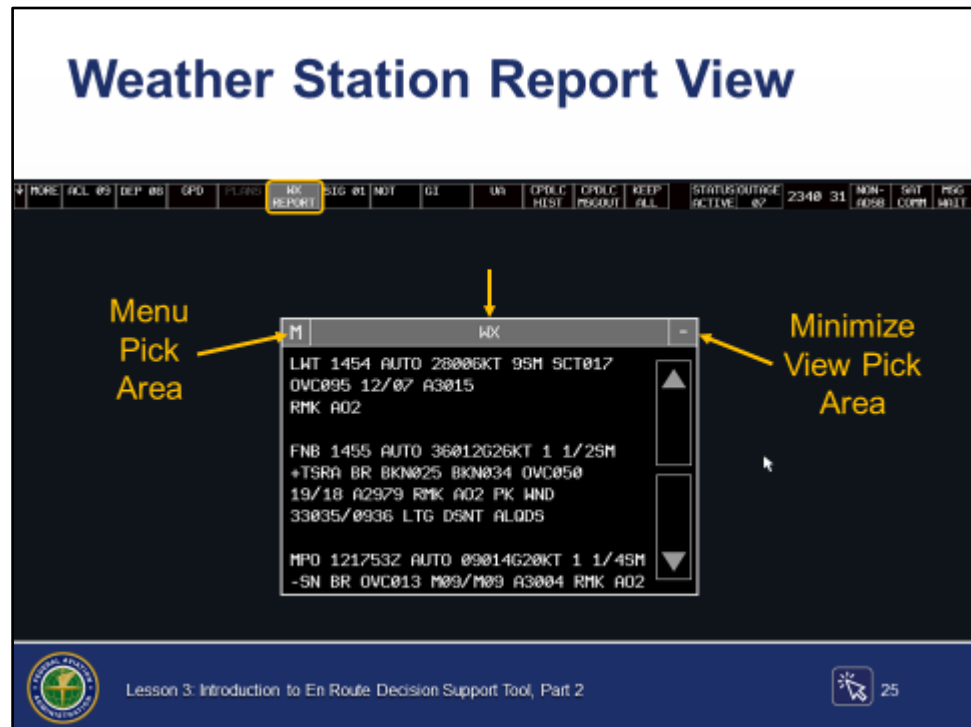
 Lesson 3: Introduction to En Route Decision Support Tool, Part 2  24

Question: When printing more than one GI message, _____ on all except _____ on the last entry.

WEATHER AND ALTIMETER DISPLAYS

Weather Station Report View

TI 6110.101,
sec. 4.3



- ⊙ The Weather Station Report View provides weather station reported information
 - The view is opened via the WX REPORT button on the EDST toolbar
- ⊙ Add weather station with keyboard command
 - WR (station ID) KBE
 - The entry of a typed station ID acts as a toggle
 - If the station ID is not in the list, the report is added
 - If the station ID matches an existing station ID, the report is deleted
- ⊙ A single weather reporting station can be added to or deleted via the WX pop-up input box
 - TBP or TBE “M” in the header
 - The view menu appears

Continued on next page

WEATHER AND ALTIMETER DISPLAYS (CONT'D)

Weather Station Report View (Cont'd)

TI 6110.101,
sec. 4.3

- Type a weather station ID and press the Enter key
 - If the station ID is not in the list, it will be added
 - If the station ID matches an existing station ID it will be deleted
 - If the station ID syntax is not valid, the input box remains displayed and an INVALID indicator is displayed below box
 - The box remains open for you to edit the station ID and resubmit
 - The entry of a typed station ID acts as a toggle
 - ⊙ Deleting a station with the trackball
 - Place the cursor over the station to be deleted
 - Station has dwell emphasis
 - TBP or TBE
 - Station is highlighted
 - DELETE pop-up appears
 - TBP or TBE the DELETE pop-up
 - Station is deleted
-

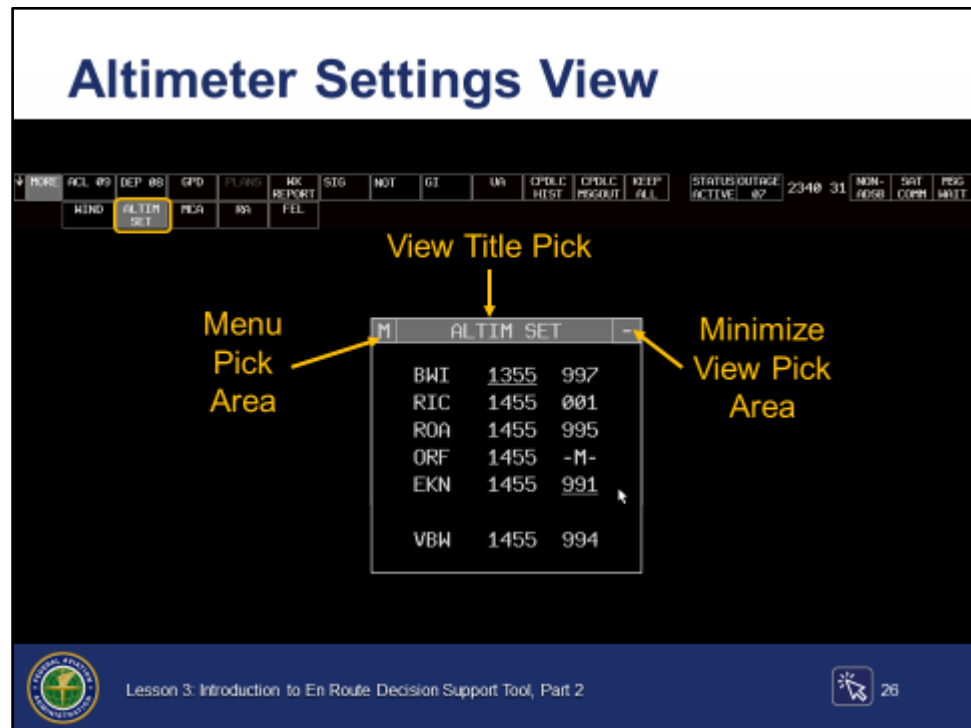
WEATHER AND ALTIMETER DISPLAYS (CONT'D)

Altimeter Settings View

TI 6110.101,
sec. 4.8

TI 6110.108,
p. 4

ERAM ATCHI
MISC 230.05,
par. 6.8.1



- ⦿ The Altimeter Settings View provides altimeter station(s) name, time, and setting
 - The view is opened via the ALTIM SET button on the EDST toolbar
- ⦿ Station Identifier - The two to five letter identifier of the station where the observation was taken
- ⦿ Altimeter setting
 - The altimeter setting is underlined if it is below 29.92
 - If the station report is missing, an “-M-” will be displayed
- ⦿ Add altimeter station using the keyboard
 - AR (station ID up to 4) KBE
 - The entry of a typed station ID acts as a toggle
 - If the station ID is not in the list, it will be added
 - If the station ID matches an existing station ID it will be deleted

Syntax: AR <LOC ID> (LOC ID) (LOC ID) (LOC ID)

Continued on next page

WEATHER AND ALTIMETER DISPLAYS (CONT'D)

Altimeter Settings View (Cont'd)

TI 6110.101,
sec. 4.8, 4.8.1

ERAM ATCHI
MISC 230.05,
par. 6.8.1

- ⊙ Add altimeter station using the menu
 - TBP or TBE “M” in the header
 - The view menu appears
 - TBP or TBE TEMPLATE
 - The template appears and replaces the view menu
 - The template contains 24 cells
 - TBP or TBE template cell to type in
 - The cell has selection emphasis
 - Type the altimeter station name
 - Selection emphasis is removed
 - Typed characters are echoed in the template cell
 - Press the enter key
 - Altimeter Station name is submitted for system processing
 - There are three possible outcomes:
 - The altimeter setting is added to the view
 - INVALID
 - If command processing fails the syntax check
 - NOT FOUND
 - If command processing passes the syntax check but the station name is not found in adaptation

Continued on next page

WEATHER AND ALTIMETER DISPLAYS (CONT'D)

Altimeter Settings View (Cont'd)

TI 6110.101,
sec. 4.8, 4.8.1

ERAM ATCHI
MISC 230.05,
par. 6.8.1

- Close the template
 - Station ID(s) and the layout in the template are reflected in the Altimeter Settings View
 - ⦿ Deleting a station with the trackball
 - Place the cursor over the station to be deleted
 - Station has dwell emphasis
 - TBP or TBE
 - Station is highlighted
 - DELETE pop-up appears
 - TBP or TBE the DELETE pop-up
 - Station is deleted
 - ⦿ The following information is provided for each altimeter station entry:
 - Observation time is underlined when it is more than 65 minutes old
 - Setting is underlined if it is below 29.92
 - “-M-” is displayed if the report is missing
-

WEATHER AND ALTIMETER DISPLAYS (CONT'D)

Knowledge Check

Knowledge Check

What will happen if you enter WR DCA on the keyboard and the WX view already contains the DCA report?

- A. You will receive an error message
- B. DCA report will update to the most current weather report
- C. DCA report will be deleted from the view



Lesson 3: Introduction to En Route Decision Support Tool, Part 2



Question: What will happen if you enter WR DCA on the keyboard and the WX view already contains the DCA report?

WEATHER AND ALTIMETER DISPLAYS (CONT'D)

Knowledge Check

Knowledge Check

How do you access the template for the ALTIM SET view?

- A. TBP or TBE "M" in the header
- B. TBP or TBE Tools>Template
- C. TBP or TBE ALTIM SET on the view



Lesson 3: Introduction to En Route Decision Support Tool, Part 2



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Question: How do you access the template for the ALTIM SET view?

WEATHER AND ALTIMETER DISPLAYS (CONT'D)

Knowledge Check

Knowledge Check

You attempt to enter an altimeter station into the ALTIM SET template and you get an invalid response. What does this mean?

- A. The altimeter setting is missing
- B. The altimeter is more than one hour old
- C. The station ID entered is incorrect



Lesson 3: Introduction to En Route Decision Support Tool, Part 2



Question: You attempt to enter an altimeter station into the ALTIM SET template and you get an invalid response. What does this mean?

WEATHER AND ALTIMETER DISPLAYS (CONT'D)

Knowledge Check

Knowledge Check

How do you remove a weather report with the trackball?

- A. TBP or TBE DELETE in the header>TBP or TBE the report
- B. TBP or TBE the report>TBP or TBE DELETE
- C. TBP or TBE "M" in the header>TBP or TBE the report



Lesson 3: Introduction to En Route Decision Support Tool, Part 2

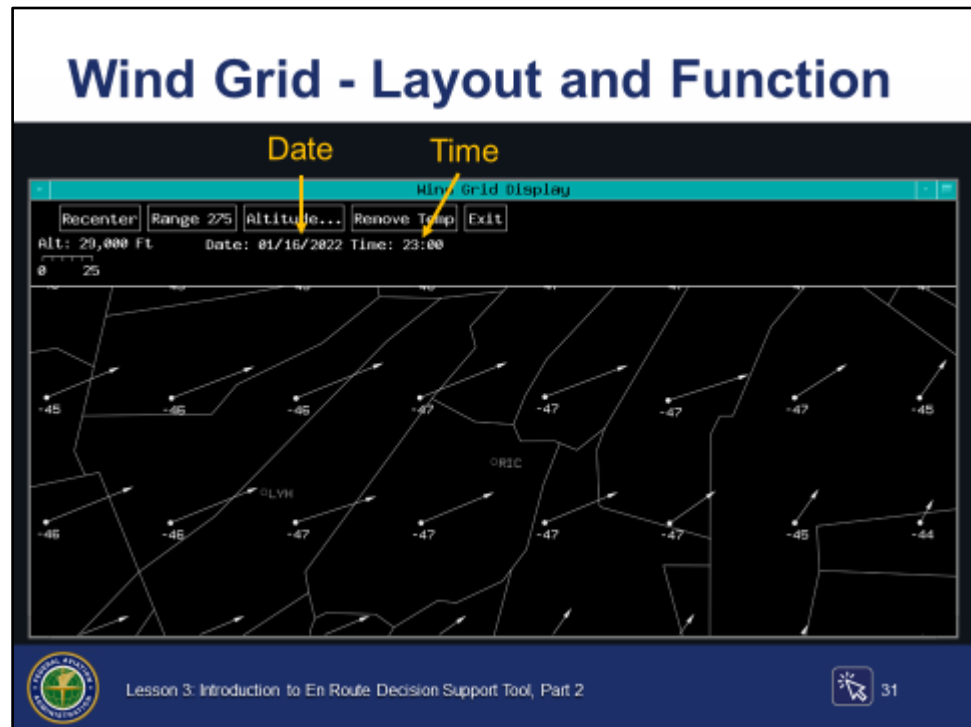


Question: How do you remove a weather report with the trackball?

WIND GRID

Wind Grid Layout and Function

TI 6110.101,
sec. 3.3



- ⦿ The Wind Grid Display contains wind and temperature data
 - The view is opened via the WIND button on the EDST toolbar
 - Date and time of the National Weather Service prediction for the specified altitude level is in the menu bar area
 - Wind and temperature data is overlaid on a map of the center sectors
 - Arrows depict wind direction
 - Longer arrows depict stronger speeds
 - Speed is shown in knots
 - Temperature is displayed in degrees Celsius
 - Keyboard commands
 - UU W
 - Forces wind display at default or last displayed altitude
 - UU W <altitude>
 - Forces wind display at a specified altitude

Continued on next page

WIND GRID (CONT'D)

Wind Grid Layout and Function (Cont'd)

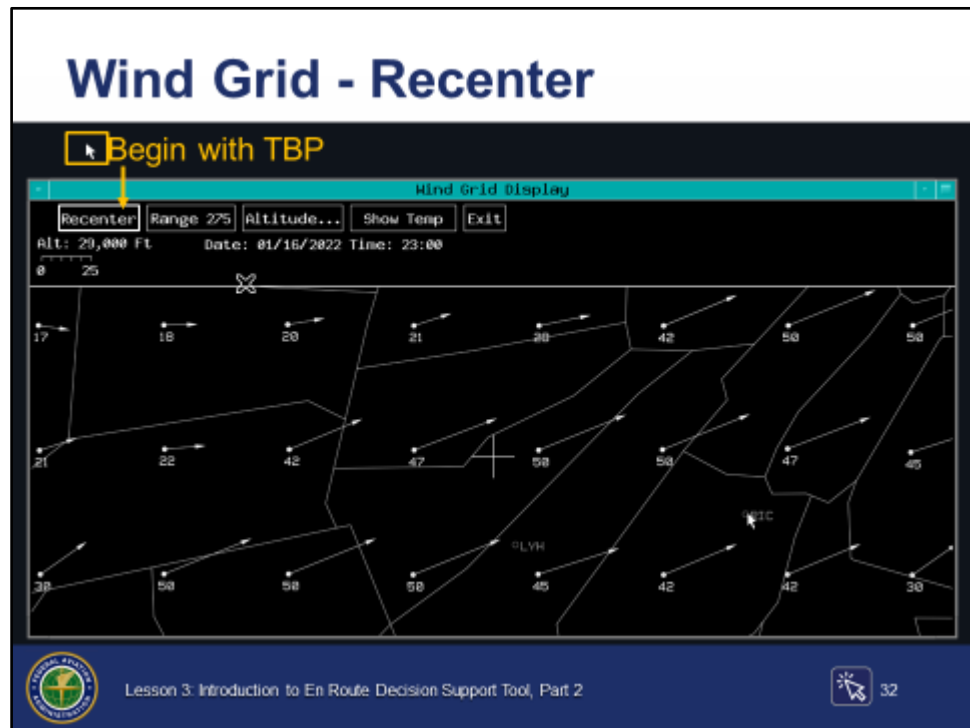
TI 6110.101,
sec. 3.3.3.5

-
- When the Show Temp button is visible, winds are displayed
 - TBP to toggle between wind and temperature data
 - When the Remove Temp button is visible, temperatures are displayed
-

WIND GRID (CONT'D)

Wind Grid - Recenter

TI 6110.101,
sec. 3.3.3.3

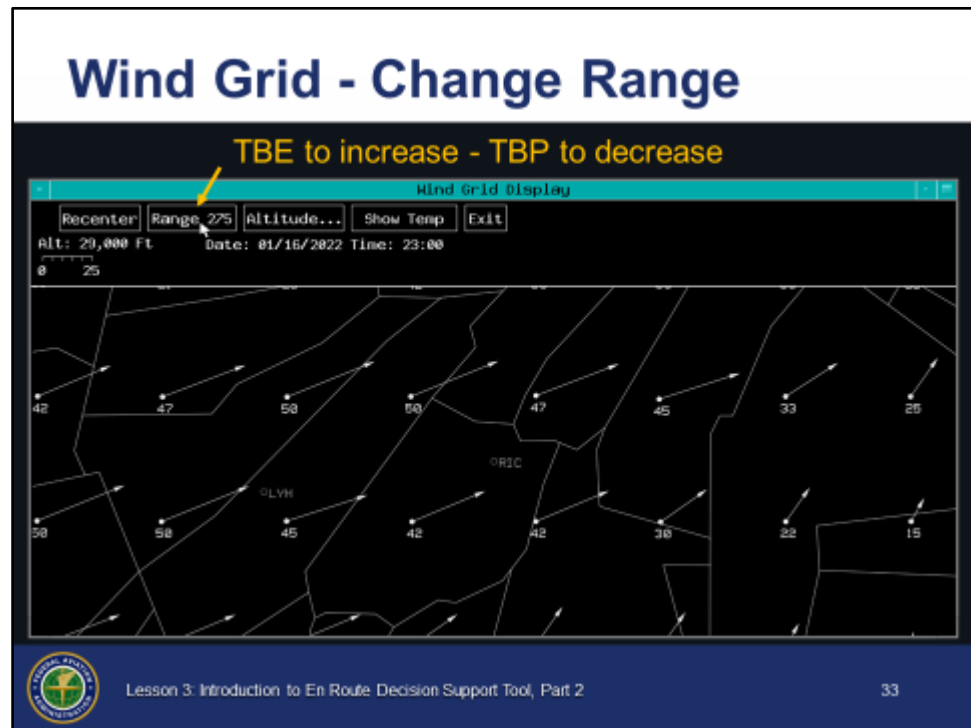


- ⦿ To recenter the map:
 - TBP on the Recenter button
 - TBP over the desired map center point

WIND GRID (CONT'D)

Wind Grid - Change Range

TI 6110.101,
sec. 3.3.3.4

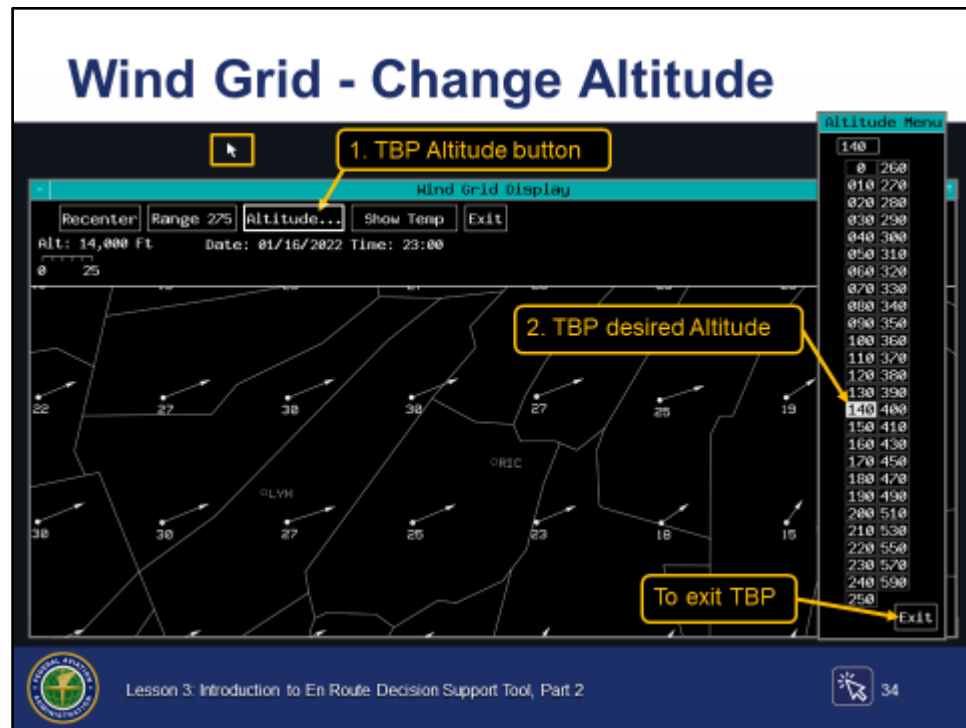


- ⦿ The current Wind Grid range value is displayed in the Range button
 - A single TBE will increase the range by 25 miles
 - A single TBP will decrease the range by 25 miles
 - If you try to adjust the range lower than the lowest setting or higher than the highest setting, an alarm tone will sound

WIND GRID (CONT'D)

Wind Grid - Change Display Altitude

TI 6110.101,
sec. 3.3.3.6

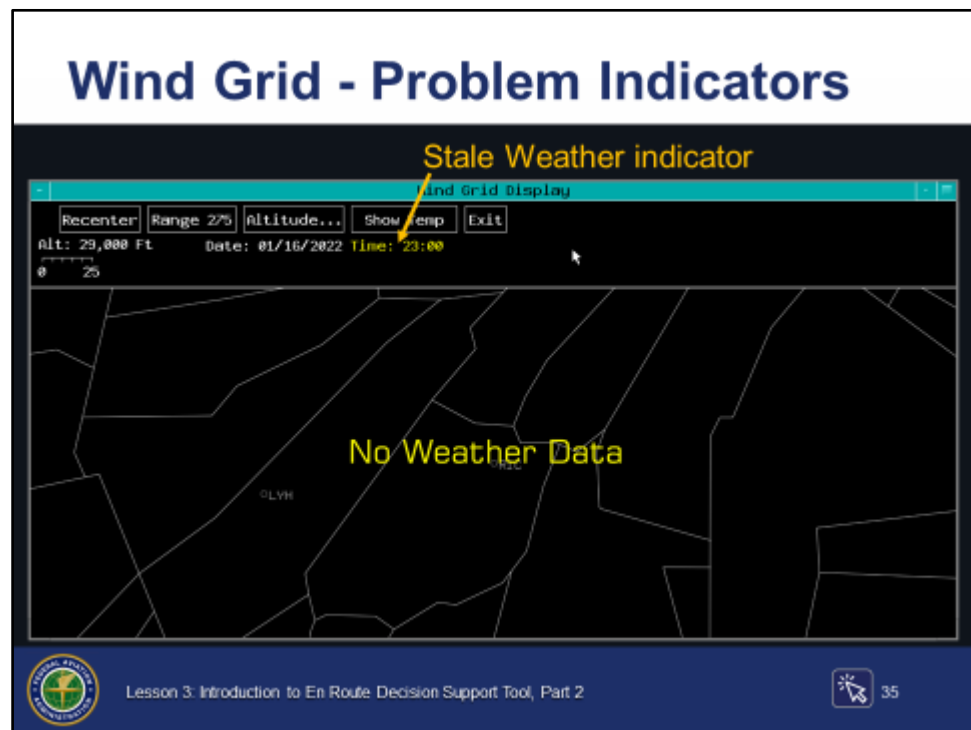


- ⦿ The Wind Grid is initially displayed at the default altitude of 29,000'
- ⦿ The displayed altitude can be changed to any value from zero to 59,000'
- ⦿ To change the altitude displaying wind or temperature values
 - TBP on the Altitude button
 - The Altitude Menu is opened
 - TBP on the desired altitude in the Altitude Menu
 - Desired altitude data is displayed
- ⦿ To exit the Altitude Menu
 - TBP the EXIT button

WIND GRID (CONT'D)

Wind Grid - Problem Indicators

TI 6110.101,
secs. 3.3.1.2,
3.3.1.3



- ⦿ When weather data is unavailable for display:
 - NO WEATHER DATA is displayed in yellow text across the display
- ⦿ If the weather data available for display for the selected altitude is older than the hour for which it was forecast
 - Time indicator is displayed in yellow indicating stale weather data


WIND GRID (CONT'D)

Knowledge Check


Knowledge Check

What is the keyboard command to show the wind grid display at a specified altitude?

- A. UU <altitude> W
- B. UU <altitude>
- C. UU W <altitude>



Lesson 3: Introduction to En Route Decision Support Tool, Part 2

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Question: What is the keyboard command to show the wind grid display at a specified altitude?

WIND GRID (CONT'D)



Knowledge Check

Knowledge Check

After TBP on Recenter, how do you recenter the map over an intersection?



- A. TBP over intersection where you want the map centered
- B. TBE over intersection where you want the map centered
- C. TBH the intersection where you want the map centered

Lesson 3: Introduction to En Route Decision Support Tool, Part 2 37


Question: After TBP on Recenter, how do you recenter the map over an intersection?

WIND GRID (CONT'D)



Knowledge Check

Knowledge Check

How do you decrease the range by one 25 mile increment?



A. TBE on Range button
B. TBP on Range button
C. TBH on Range button

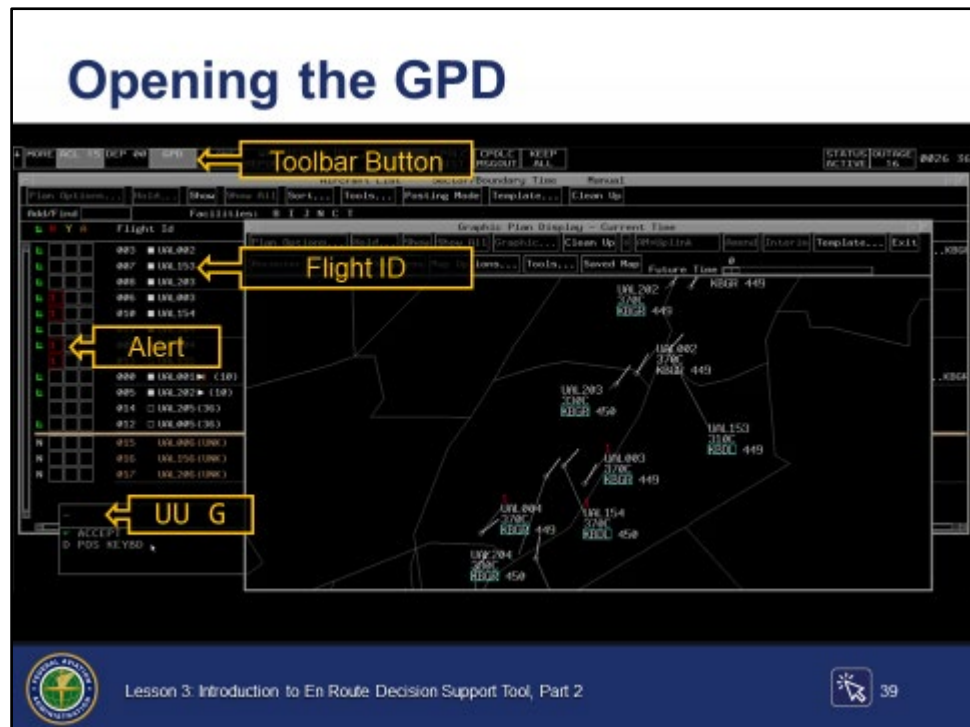
 Lesson 3: Introduction to En Route Decision Support Tool, Part 2  38

Question: How do you decrease the range by one 25 mile increment?

Graphic Plan Display

Opening the GPD

TI 6110.101,
secs. 2.5.6,
3.1.1

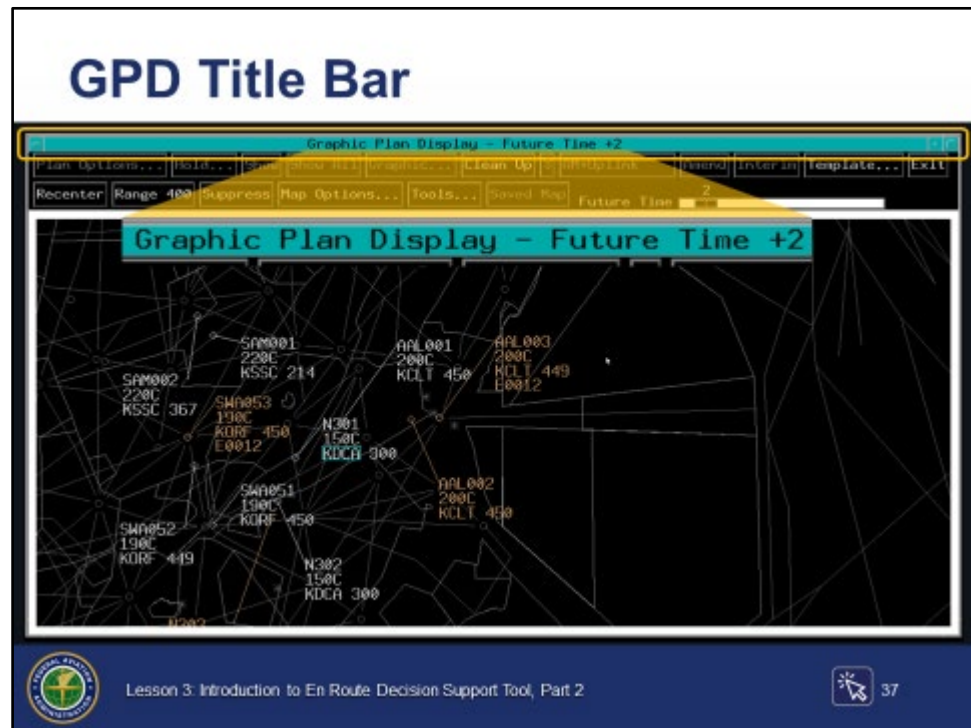


- ⦿ Graphic Plan Display depicts Trial Plans, FPs, and surrounding traffic
- ⦿ Access the GPD by using one of the following:
 - TBP or TBE GPD button in EDST toolbar
 - Click again to close the GPD or use the Exit button in the GPD
 - TBE flight ID
 - Click on a flight ID to open the GPD with the trajectory highlighted
 - TBP or TBE Exit button to close the GPD
 - TBE an ACL Alert
 - Click on any ACL alert to open the GPD with that conflict highlighted
 - TBP or TBE Exit button to close the GPD
 - UU G
 - Enter UU G in MCA to open the GPD

GRAPHIC PLAN DISPLAY (CONT'D)

GPD Title Bar

TI 6110.101,
sec. 3.1.1.1



- ⦿ Title bar is at the top of the GPD and contains the following:
 - Window Menu button
 - Display minimize and maximize or restore buttons
 - Display Title
 - The text Current Time or Future Time is displayed after the GPD title
 - In the case of future time
 - The number of minutes the GPD has been moved into the future appears after Future Time label
 - GPD border highlighted in white

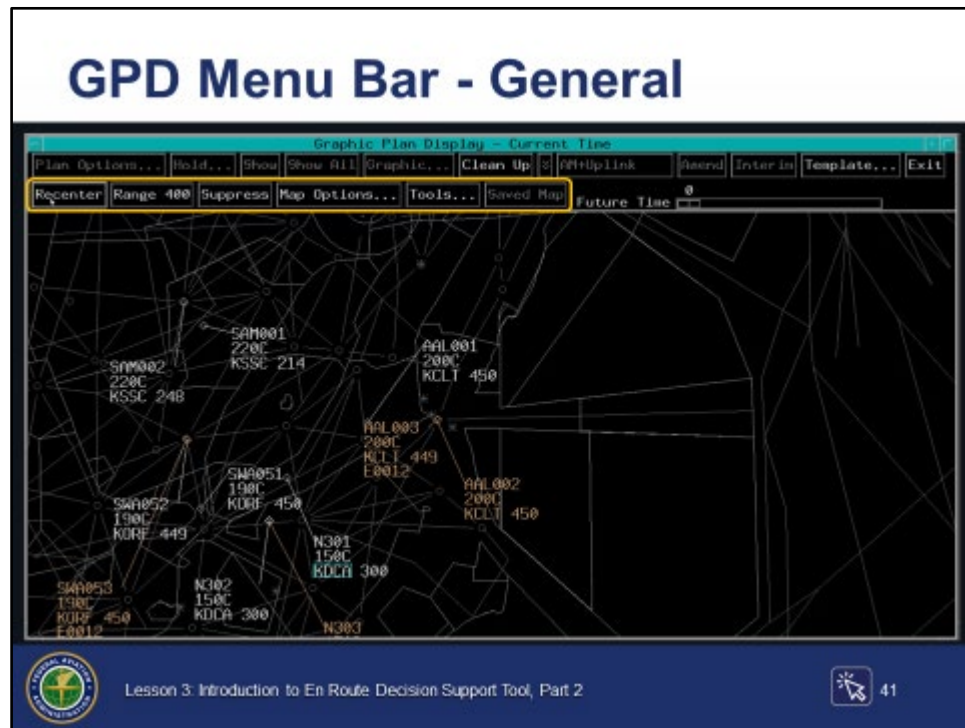
Example: Graphic Plan Display - Future Time +2

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GRAPHIC PLAN DISPLAY (CONT'D)

GPD Menu Bar - General

TI 6110.101,
sec. 3.1.1.2



- ⦿ Menu Bar buttons access options and menus for managing the GPD map and flight display features
- ⦿ Recenter button
 - Used to recenter the map
 - Function is similar to the Wind Grid Display
- ⦿ Range button
 - Used to change the scale of the GPD
 - A single TBE will increase the range by 25 miles
 - A single TBP will decrease the range by 25 miles

Continued on next page

GRAPHIC PLAN DISPLAY (CONT'D)

GPD Menu

Bar - General (Cont'd)

TI 6110.101,
sec. 3.1.1.2

-
- ⊙ Suppress or Restore button
 - TBP to suppress the display of data blocks on the GPD that are not displaying current or trial plan route data
 - TBP to restore the display of data blocks
 - ⊙ Map Options... button
 - TBP to open Map Options Menu
 - TBP Map Features... pick area
 - Displays the Map Features Menu
 - TBP to select different map elements and associated labels for display or removal
 - Removing a map element will also remove its label; however, the label may still be selected for display
 - NOTE:** Labels are only viewable if the map features are selected for display.
 - Map Features Menu options
 - Sector Boundaries
 - Center Boundaries
 - Approach Control Boundaries
 - Special Activities Airspace
 - Airways
-

Continued on next page

GRAPHIC PLAN DISPLAY (CONT'D)

GPD Menu

Bar - General (Cont'd)

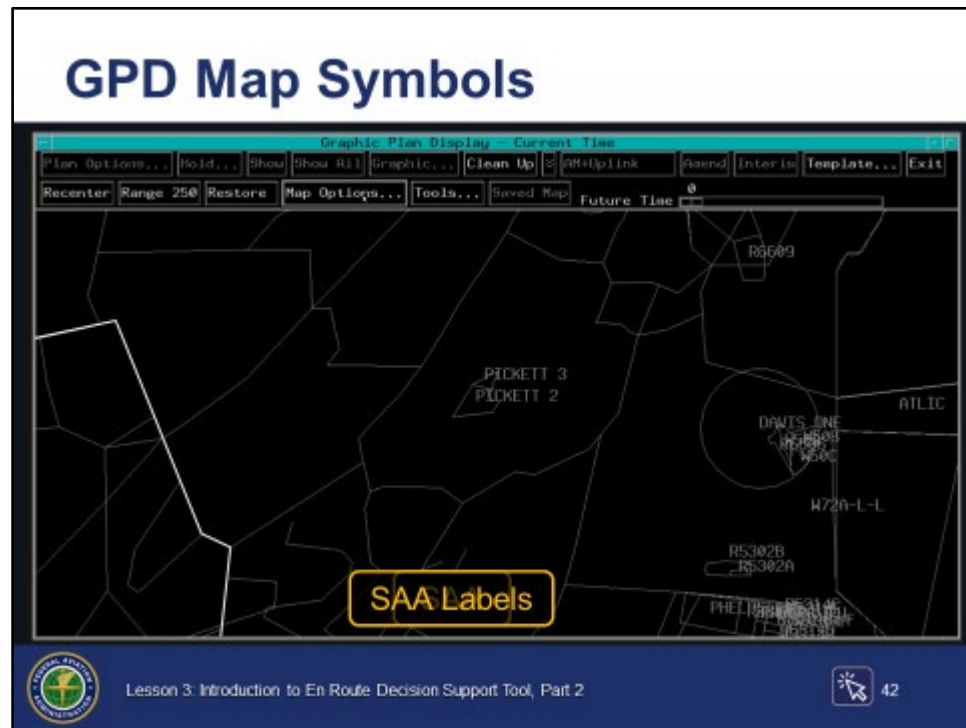
TI 6110.101,
sec. 3.1.1.2

-
- Airports and Airport Labels
 - NAVAIDs and NAVAID Labels
 - Waypoints and Waypoint Labels
 - Scale - if selected, the scale indicator is located in the last line of the menu bar area, on the left side.
-

GRAPHIC PLAN DISPLAY (CONT'D)

GPD Map Symbols

TI 6110.101,
sec. 3.1.1.3



- ⦿ The GPD uses a set of map symbols that are typical of ATC radar or Situation Displays
 - Symbols include sector boundaries, center boundaries, airports, fixes, approach control boundaries, airways, and intersections
 - Labels can be displayed for fixes, intersections, airports, and Special Activity Airspace (SAA)
 - Special symbols used in the GPD include the following items:
 - Sector Boundaries
 - White line
 - Center Boundaries
 - Bold white line
 - Approach Control Boundaries
 - Gray dashed line
 - Airports
 - White box

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GRAPHIC PLAN DISPLAY (CONT'D)

GPD Map Symbols (Cont'd)

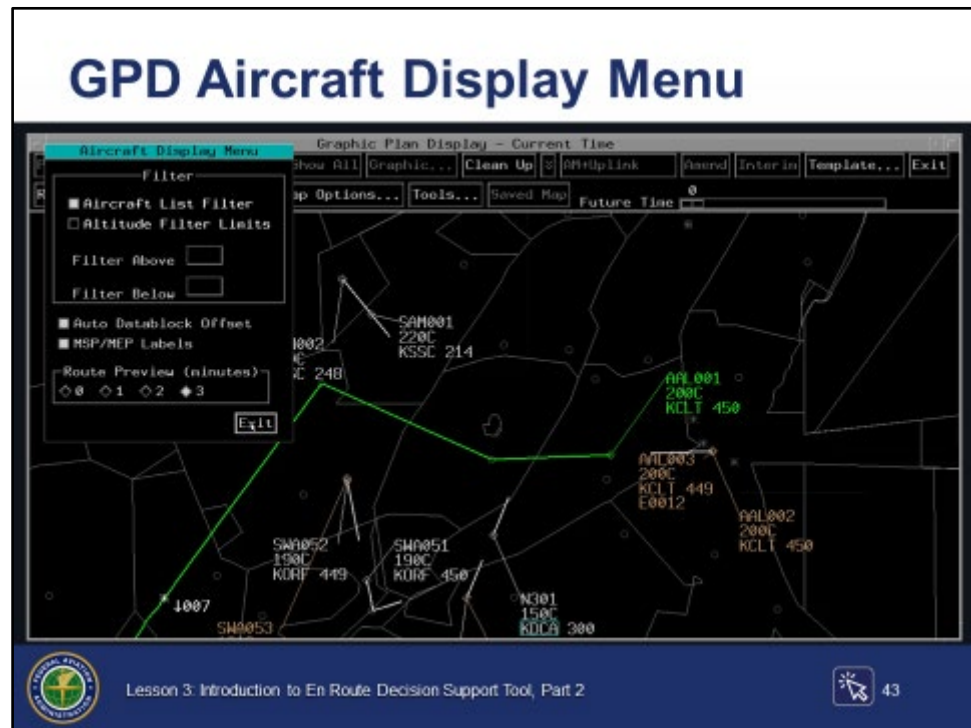
TI 6110.101,
sec. 3.1.1.3

-
- NAVAIDs
 - VOR and VORTAC
 - White circle
 - TACAN
 - White splat
 - Intersections, Waypoints
 - White plus
 - Victor airways
 - White line
 - Jet routes and Q routes
 - White line
 - Special Activity Airspace Boundaries
 - Solid white line, cold
 - Solid orange line when an airspace alert is displayed
-

GRAPHIC PLAN DISPLAY (CONT'D)

GPD Aircraft Display Menu

TI 6110.101,
sec. 3.1.2.5



- ⦿ The AC Display Menu pick area is found in the Maps Options Menu
- ⦿ TBP AC Display Menu... pick area
 - Aircraft Display Menu options:
 - Aircraft List Filter
 - Altitude Filter Limits
 - Filter Above and Filter Below
 - Auto Datablock Offset
 - Route Preview
 - TBP to show 1 minute route preview
 - TBP to show 2 minute route preview
 - TBP to show 3 minute route preview

Continued on next page

GRAPHIC PLAN DISPLAY (CONT'D)

GPD Aircraft Display Menu (Cont'd)

TI 6110.101,
sec. 3.1.2.5

- MSP and MEP Labels
- TBP to suppress MSP label
- TBP to restore MSP label



MANEUVER START POINT (MSP) - Symbology (asterisk) displayed on the projected route of flight to indicate when an altitude maneuver is predicted to start. Also displays an Up or Down arrow to indicate the direction of the maneuver.



MANEUVER END POINT (MEP) - Symbology (asterisk) displayed on the projected route of flight to indicate when the altitude maneuver is predicted to be completed.

NOTE: The maneuver start and end points are only predictions made by the system based on computed trajectory and may not accurately predict what the aircraft will fly.

☉ TBP Tools... button

- Displays the Tools Menu
- TBP Save GPD Map button
 - Tools...>Save GPD Map pick area
 - Saves current range and center of the GPD map
 - Exiting the GPD without saving causes the map center and range to be lost

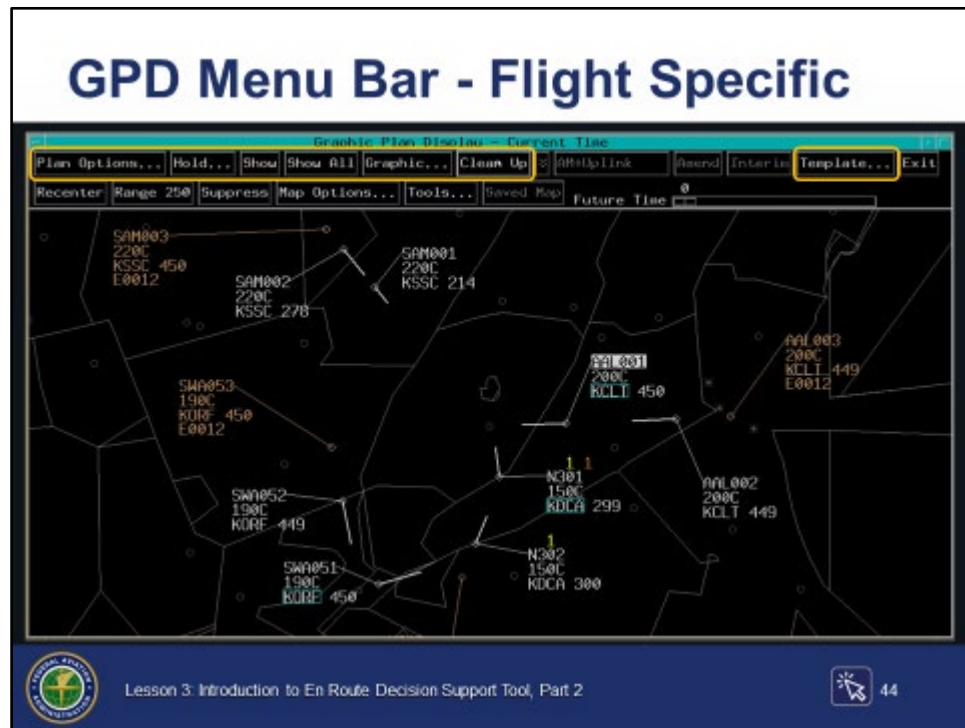
☉ Saved Map button

- Used to display the most recently saved Graphic Plan Display range and map center

GRAPHIC PLAN DISPLAY (CONT'D)

GPD Menu Bar - Flight Specific

TI 6110.101,
sec. 3.1.1.2



- ⦿ Flight specific Menu Bar buttons become active only when a flight ID is selected
- ⦿ Plan Options... button
 - Displays the Plan Options Menu for the GPD
 - TBP flight ID
 - Plan Options..., Hold..., Show, Show All, Graphic... buttons become active
 - TBP Plan Options button to open that menu
 - TBP Exit to close

Continued on next page

GRAPHIC PLAN DISPLAY (CONT'D)

GPD Menu Bar, Flight Specific (Cont'd)

TI 6110.101,
sec. 3.1.1.2

-
- ⊙ Hold... button
 - Displays the Hold Data Menu
 - TBP to open Hold Menu
 - TBP Exit to close
 - ⊙ Clean Up button
 - Used to remove projected route lines for current and trial plans as well as alerts from the GPD
 - ⊙ Show... button
 - Used to graphically display or remove a selected aircraft's current plan and any specific alert assigned to the users sector
 - TBP alert
 - Show button becomes active
 - TBP Show to display the alert
 - TBP Clean Up to clear
 - ⊙ Show All... button
 - Used to graphically display or remove a selected aircraft's current plan and all the alerts associated with the selected aircraft
 - TBP the flight ID
 - Plan Options..., Hold..., Show, Show All, Graphic... buttons become active
 - TBP Show All to display all alerts
 - TBP Clean Up to clear
-

Continued on next page

GRAPHIC PLAN DISPLAY (CONT'D)

GPD Menu Bar, Flight Specific (Cont'd)

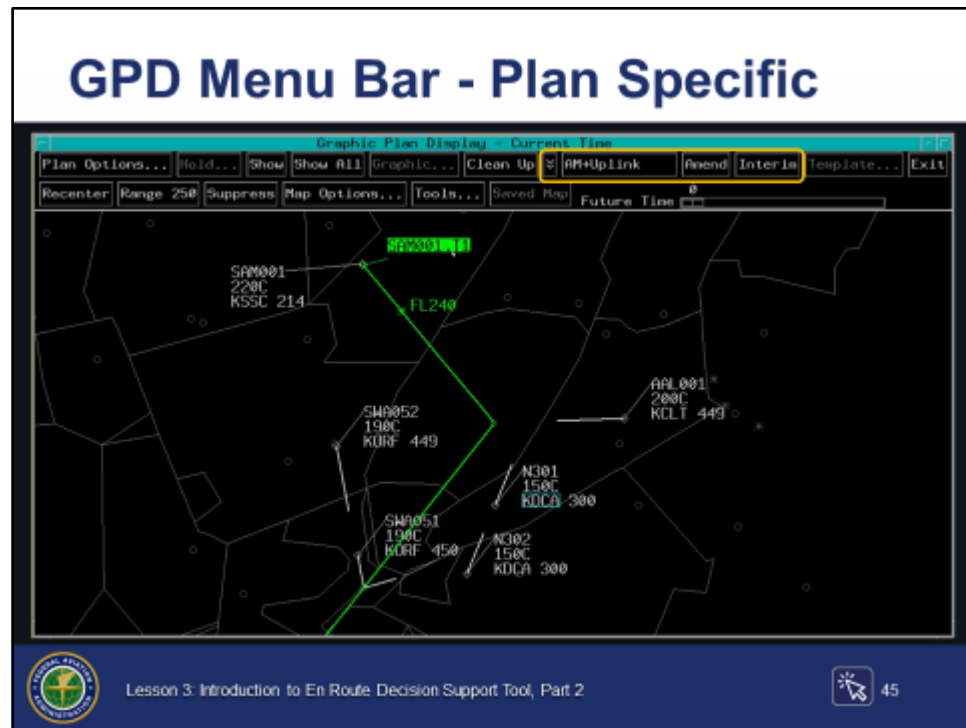
TI 6110.101,
sec. 3.1.1.2

- ⦿ Graphic... button
 - Used to create graphical trial plans for route amendments
 - TBP the flight ID
 - Plan Options..., Hold..., Show, Show All, Graphic... buttons become active
 - TBP Graphic... to enter graphic mode
 - Covered in future lesson
 - ⦿ Template... button
 - Opens the Flight Plan Template to create a FP if no entry is selected, or
 - Opens the Amendment Template to amend a FP if an entry is currently selected
-

GRAPHIC PLAN DISPLAY (CONT'D)

GPD Menu Bar - Plan Specific

TI 6110.101,
sec. 3.1.1.2



- Due to Reason Chevron, AM+Uplink, Amend, and Interim buttons become active once a specific trial plan or amendment plan is selected

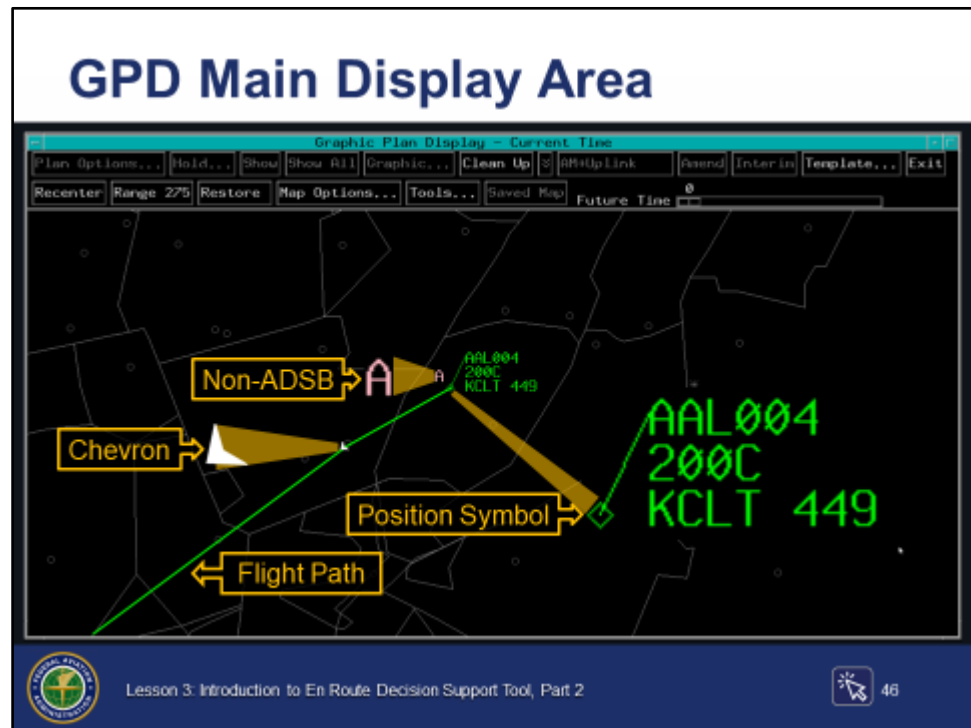
Example: SAM001 has a trial plan for FL240.

- TBP the trial plan ID to activate the following Menu Bar buttons:
 - Due to Reason Chevron
 - Due to Reason buttons are messages that can be appended to the uplink request
 - AM+Uplink
 - Used to send and uplink an amendment
 - Amend
 - Interim
 - Used to send an interim altitude message to the system based on a Trial Plan

GRAPHIC PLAN DISPLAY (CONT'D)

GPD Main Display Area, Route Symbols

TI 6110.101,
sec. 3.1.1.3



- ⦿ Each aircraft is represented by a position symbol and if selected, a projected flight path

CAUTION: The GPD may resemble radar, but it is not radar. The GPD uses coding techniques to draw your attention to a particular data block, FP, or one of its components.

- ⦿ White chevrons
 - Used to mark the location of the beginning and end points of the TFM-protected segment of a route
 - Bisect the route line, pointing inward towards the protected segment of the route

Continued on next page

GRAPHIC PLAN DISPLAY (CONT'D)

GPD Main Display Area, Route Symbols (Cont'd)

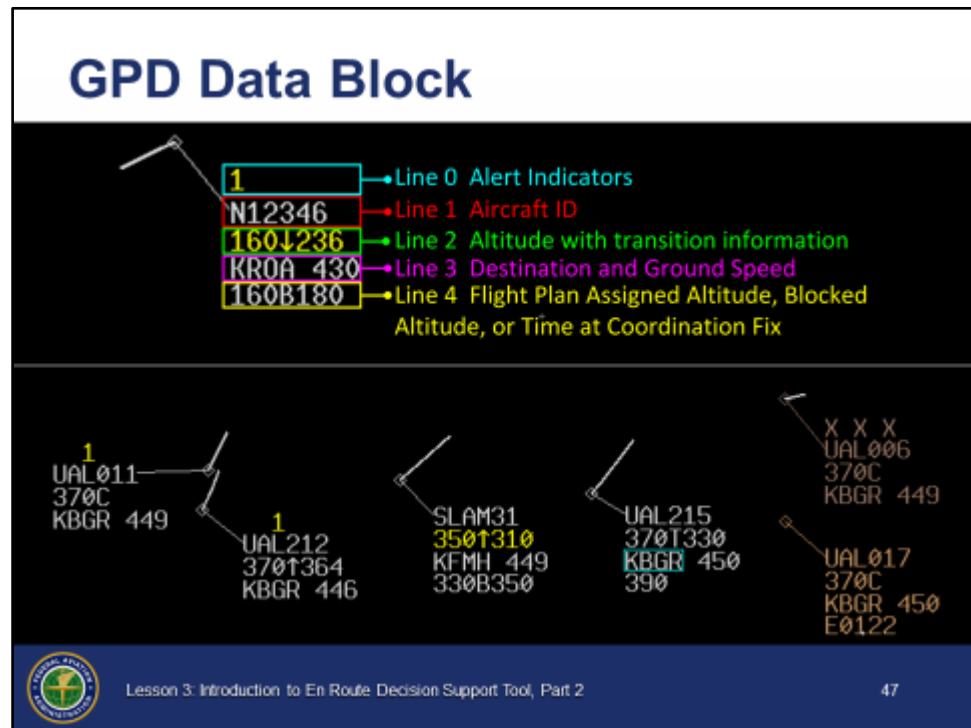
TI 6110.101,
sec. 3.1.1.3

-
- ⊙ Coral "A"
 - A Non-Automated Dependent Surveillance-Broadcast (ADS-B) indicator is displayed when the track indicates that there is no ADS-B, and the NON-ADSB button in the Toolbar is selected
-

GRAPHIC PLAN DISPLAY (CONT'D)

GPD Data Block

TI 6110.101,
sec. 3.1.1



- ⦿ The GPD data blocks look similar to full data blocks displayed on the R Position Situation Display
- ⦿ Data Block Lines
 - Line 0 - Alert Indicators
 - Line 1 - Aircraft ID
 - Line 2 - Altitude
 - Line 3 - Destination and Ground Speed
 - Line 4 - Flight Plan Assigned Altitude, Block Altitude, or Time at Coordination Fix

Continued on next page

GRAPHIC PLAN DISPLAY (CONT'D)

GPD Data Block (Cont'd)

TI 6110.101,
sec. 3.1.1

ERAM ATCHI
MISC 230.05,
pars. 2.1.3, 3.6-
3.6, 11.4

Examples: UAL011 and UAL212, line 0, yellow alerts

SLAM31, line 4, climbing to a block altitude

UAL215, Line 2 and line 4, interim altitude with assigned altitude

UAL006, Line 0, not probed

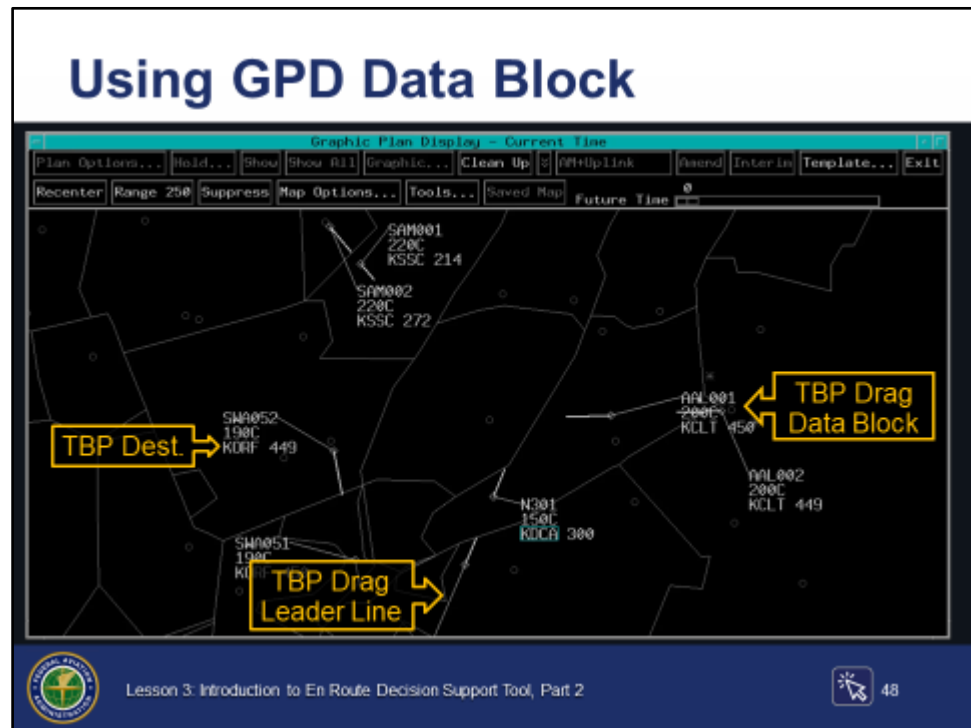
UAL017, line 4, inadequate track data, time at coordination fix

GRAPHIC PLAN DISPLAY (CONT'D)

Using the GPD Data Block

ERAM_ATCHI_
MISC_230.05,
par. 11.8.13

TI 6110.101,
secs. 3.1.2.7,
3.1.3.5.2



⦿ Using the GPD data block

- TBP and hold the data block, leader line, or projected route line and drag
 - Moves the data block to a new location
 - Release TBP to place the data block
- TBP on the altitude field in the data block
 - The altitude field in the GPD data block is highlighted
 - The Altitude Menu is displayed

Continued on next page

GRAPHIC PLAN DISPLAY (CONT'D)

Using the GPD Data Block (Cont'd)

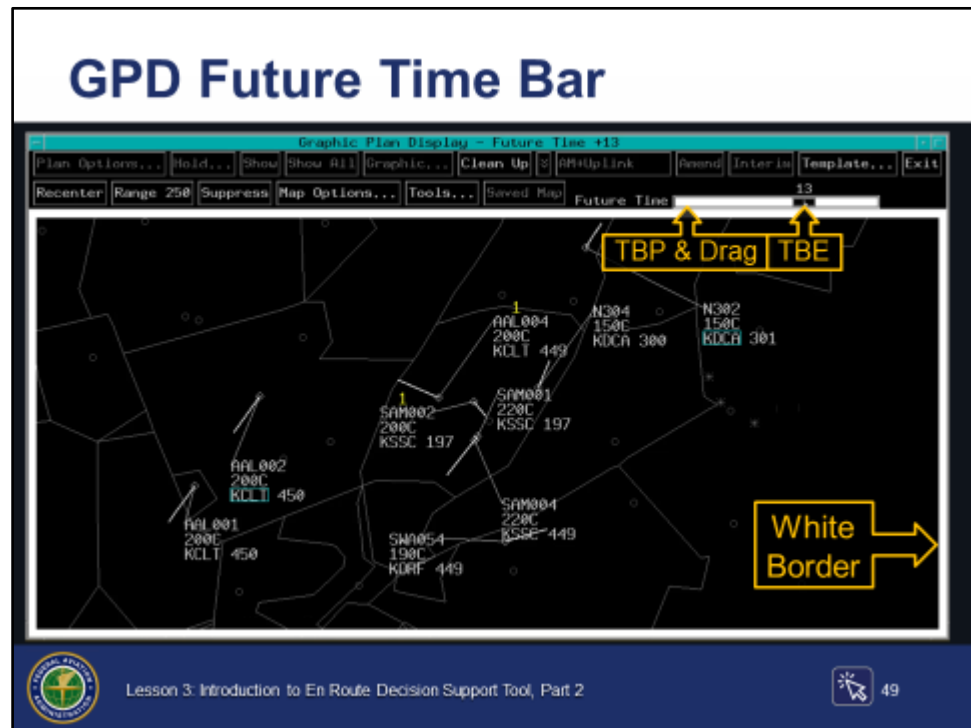
ERAM_ATCHI_
MISC_230.05,
pars. 11.7.22.1,
11.7.23.1

-
- TBP on the destination field in the data block
 - The destination field is highlighted
 - The Route Menu is displayed
 - TBP on the speed field in the data block
 - The speed field is highlighted
 - The Speed Menu is displayed
-

GRAPHIC PLAN DISPLAY (CONT'D)

GPD Future Time Bar

TI 6110.101,
sec. 3.1.1.2



- ⦿ The GPD Future Time bar scrolls time into the future
 - This allows you to look at and evaluate the graphical situation up to 20 minutes out
 - Use the trackball to select a future time in any of the following ways:
 - TBP and hold on the slider and move it across the bar and release at the desired time increment
 - TBP anywhere on the Future Time bar to move the slider towards the cursor in one-minute increments
 - TBE anywhere on the Future Time bar and the slider will automatically move to that time increment

Continued on next page

GRAPHIC PLAN DISPLAY (CONT'D)

GPD Future Time Bar (Cont'd)

TI 6110.101,
sec. 3.1.1.2

-
- ⦿ When the Future Time bar is used to display projected GPD data at a specified time in the future, the white border around the entire GPD becomes a wider whiter border
 - ⦿ Alert coding is not impacted by future time display
-



GRAPHIC PLAN DISPLAY (CONT'D)

Knowledge Check

Knowledge Check

How can you determine if a GPD track has no ADS-B?

- A. Red ADS-B in line 0 of the GPD data block
- B. Coral "A" adjacent to the track symbol
- C. GPD data block will not display a projected route

 Lesson 3: Introduction to En Route Decision Support Tool, Part 2  50

Question: How can you determine if a GPD track has no ADS-B?


GRAPHIC PLAN DISPLAY (CONT'D)


Knowledge Check

Knowledge Check


What does 280 mean in this GPD data block?

- A. Speed
- B. Heading
- C. Assigned altitude





Lesson 3: Introduction to En Route Decision Support Tool, Part 2

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Question: What does 280 mean in this GPD data block?


GRAPHIC PLAN DISPLAY (CONT'D)

Knowledge Check


Knowledge Check

How can you determine if the GPD is displaying future time?

- A. Future time is displayed in the GPD header
- B. EDST clock will indicate plus time in minutes
- C. GPD target symbols look like an hourglass



Lesson 3: Introduction to En Route Decision Support Tool, Part 2

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Question: How can you determine if the GPD is displaying future time?


GRAPHIC PLAN DISPLAY (CONT'D)

Knowledge Check


Knowledge Check

What is the keyboard command to open the GPD?

- A. UU GPD
- B. UU G
- C. UU GP



Lesson 3: Introduction to En Route Decision Support Tool, Part 2

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Question: What is the keyboard command to open the GPD?


GRAPHIC PLAN DISPLAY (CONT'D)

Knowledge Check


Knowledge Check

How would you access the menu to display or remove SAA labels on the GPD?

- A. TBP Tools>Airspace Status...
- B. TBP Military...>Area Names...
- C. TBP Map Options>Map Features



Lesson 3: Introduction to En Route Decision Support Tool, Part 2



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Question: How would you access the menu to display or remove SAA labels on the GPD?



GRAPHIC PLAN DISPLAY (CONT'D)

Knowledge Check

Knowledge Check

How are TFM-protected routes depicted on the GPD?

- A. White chevrons bisecting the route
- B. Cyan "T" adjacent to the GPD position symbol
- C. Projected route segments are colored cyan

 Lesson 3: Introduction to En Route Decision Support Tool, Part 2  55

Question: How are TFM-protected routes depicted on the GPD?

FREE FORM TEXT

Record Data

JO 7110.65, par.
13-1-8,
TBL 13-1-1,
TBL 13-1-2,
TBL 13-1-3

Free Form Text

P Time	Flight ID	Type	Alt	Code	Route
0005	255 N1284J	DHCB/U	250	4216	E68..TOTEC..E68
0010	194 N9466X	C172/G	110	4373	KCTIA..P13/0025
0015	204 N1226T	C172/A	VFR	4241	KTUS..DAV/0040
0024	032 N93329	C172/G	100	4360	PHS..DUG..VIG.TUS..KRYN/0050
0030	010 LN55285	L335/L	400	0752	*KEGZ..CYND/0221
0040	427 AF72131	E120/G	1200	4256	KFMU..TUS..OLS..KOL5/0015
0055	350 BT0615	PC12/G	250	4232	KBVC..RBO..KRB0/0039

- ⦿ Control information not otherwise recorded via automation recordings or voice recordings must be manually recorded using approved methods
- ⦿ When an ACL or DL entry's free text area is used to enter control information, you may use:
 - Clearance abbreviations
 - Miscellaneous abbreviations
 - EDST equivalents for control information symbols
 - Plain language markings when it will aid in understanding information
 - Locally approved abbreviations

Continued on next page

FREE FORM TEXT (CONT'D)

Record Data (Cont'd)

JO 7110.65, par.
13-1-8,
TBL 13-1-1,
TBL 13-1-2,
TBL 13-1-3

Example: D-A -TFD RV 50 *400 AF10 MIN* V0040 *45* C132.9

D-A Cleared to depart KCGA (Casa Grande Municipal Airport) to
CYKA (Kamloops)

-TFD Direct to TFD (Stanfield VORTAC)

50 Climb and maintain 5,000'

400 AF10 MIN Expect FL400 after 10 minutes

V0040 *45* Clearance void 0040, advise by 0045

C132.9 Contact frequency 132.9

- ⦿ Free text area must remain open and visible when it contains control information
 - ⦿ When no longer relevant, the information entered into the free text area must be updated or deleted
 - ⦿ Control information entered in the free text area must be used for reference purposes only
 - ⦿ Information entered into the free text area is not forwarded and, if necessary, must be coordinated
-

FREE FORM TEXT (CONT'D)

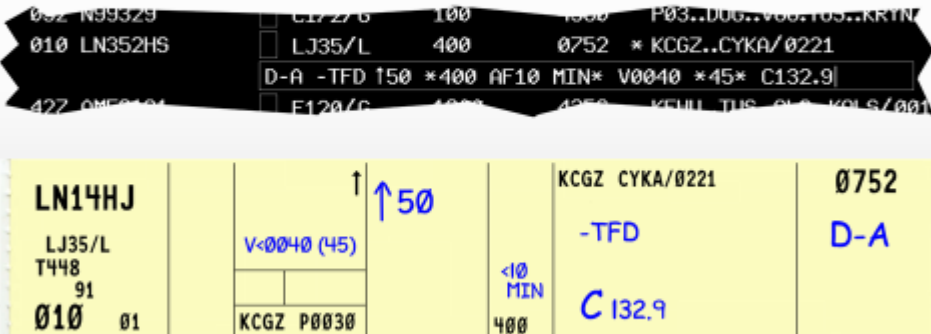
Authorized Abbreviations

JO 7110.65,
TBL 2-3-11,
TBL 2-3-12,
Figure 2-3-7,
TBL 13-1-1,
TBL 13-1-2,
TBL 13-1-3


ERAM ATCHI
MISC 230.05,
par. 6.8.1

Authorized Abbreviations

- Free Text Areas cannot accept all manual strip marking symbols



LN14HJ		↑ 50	KCGZ CYKA/0221	0752
LJ35/L	V<0040 (45)		-TFD	D-A
T448		<10 MIN	C 132.9	
010 01	KCGZ P0030	400		

 Lesson 3: Introduction to En Route Decision Support Tool, Part 2 57

⦿ ACL and DL free text areas cannot accept all manual strip marking symbols for control information, but instead use the following:

- Appendix A, Clearance Abbreviations
- Appendix B, Miscellaneous Abbreviations
- Appendix C, EDST Equivalents for Control Information Symbols

NOTE: Appendix D, compares select manual strip marking with approved free text control instructions


FREE FORM TEXT (CONT'D)

Knowledge Check


Knowledge Check

When must the free text area be open and visible?

- A. Any time a flight is within your sector
- B. When a flight is nonradar
- C. If it contains control instructions



Lesson 3: Introduction to En Route Decision Support Tool, Part 2

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Question: When must the free text area be open and visible?


FREE FORM TEXT (CONT'D)

Knowledge Check


Knowledge Check

When can plain language be used in the free text area for control instructions?

- A. Never
- B. To aid in understanding information
- C. When free text is automatically forwarded at handoff



Lesson 3: Introduction to En Route Decision Support Tool, Part 2


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Question: When can plain language be used in the free text area for control instructions?

PART-TASK EXERCISE: EDST PART 2

Part-Task Exercise

- **Purpose**
 - Perform the following tasks:
 - Identify features of the Tools Menu
 - Demonstrate GI Message View and SIGMETS View features
 - Identify weather and altimeter displays
 - Interact with the GPD
- **Materials**
 - TTL part-task exercise: EDST Part 2
- **Directions**
 - This exercise takes approximately 45 minutes to complete. Each student must complete the checklist tasks. No headsets are required.

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Purpose

Perform the following tasks:

- ⦿ Identify features of the Tools Menu
 - ⦿ Demonstrate GI Message View and SIGMETS View features
 - ⦿ Identify weather and altimeter displays
 - ⦿ Interact with the GPD
-

Materials



Handout:

- ⦿ TTL part-task exercise: EDST Part 2



TTL Scenario

Directions

This exercise takes approximately 45 minutes to complete. Each student must complete the checklist tasks. No headsets are required.


CONCLUSION

Lesson Summary

Lesson Summary

This lesson covered:

- Features of the tools menu
- Steps to interact with NOTAMs, GIs, and SIGMETs views
- Weather and altimeter displays of EDST
- EDST free form text



Lesson 3: Introduction to En Route Decision Support Tool, Part 2

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- ⊙ Features of the Tools Menu
 - Options Menu
 - Airspace Status View
 - Airport Stream Filter Status Display
 - Restrictions View
 - Current Restrictions View
- ⊙ Steps to interact with NOTAMs, GIs, and SIGMETs Views
 - NOTAMS View - access
 - GI Messages View - access
 - Forwarding GI messages
 - Deleting single GI message
 - Deleting multiple GI messages
 - SIGMETS View - access

Continued on next page

CONCLUSION (CONT'D)

Lesson Summary (Cont'd)

- Printing - NOTAMs, GI messages, and SIGMETs
 - Printing a single entry
 - Printing multiple entries
 - Printing all entries
 - ⊙ Weather and altimeter displays
 - Weather Station Report View
 - Altimeter Settings View
 - Wind grid
 - Layout and function
 - Recenter
 - Change range
 - Change display altitude
 - Problem indication
 - ⊙ Graphic Plan Display
 - Access
 - Layout
 - Map symbols
 - Aircraft Display Menu
 - Menu bar
 - General
 - Flight specific
 - Plan specific
 - Main display area and route symbols
 - GPD data block
 - Future Time bar
 - ⊙ EDST free form text
-

APPENDIX A

Clearance Abbreviations

Abbreviation	Meaning
A	Cleared to airport (point of intended landing)
B	Center clearance delivered
C	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
H	Cleared to hold and instructions issued
N	Clearance not delivered
O	Cleared to the outer marker
PD	Cleared to climb or 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
T	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 B

Miscellaneous Abbreviations

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
NDB	Nondirectional radio beacon approach
OTP	VFR conditions-on-top
PA	Precision approach
PT	Procedure turn
RA	Resolution advisory (Pilot's 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 C

EDST Equivalents for Control Information Symbols

Abbreviation	Meaning
T <i>dir</i>	Depart (direction if specified)
↑	Climb and maintain
↓	Descend and maintain
CR	Cruise
AT	At
X	Cross
M	Maintain
/ <i>airway</i>	Join or intercept (airway, jet route, track, or course)
=	While in controlled airspace
WICA	While in control area
<i>dir</i> ECA	Enter control area
<i>dir</i> OOCA	Out of control area
<i>dir</i> ESA	Cleared to enter surface area. Indicated direction of flight by appropriate compass letter(s)
TSA <i>alt</i>	Through surface area and altitude indicated direction of flight by appropriate compass letter(s). 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
SVFR	Local Special VFR operations in the vicinity of (name) airport are authorized until (time). Maintain special VFR conditions (altitude if appropriate)
B4	Before
AF	After or Past
/	Until
* <i>instructions</i> *	Alternate instructions
REST	Restriction
AOB	At or Below
AOA	At or Above
-	From-to (route, time, etc.)
(Alt)B(Alt)	Indicates a block altitude assignment. Altitudes are inclusive, and the first altitude must be lower than the second (Example 310B370)

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







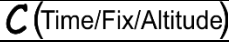







APPENDIX C

EDST Equivalents for Control Information Symbols

Abbreviation	Meaning
V time	Clearance void if aircraft not off ground by time
CL	Pilot canceled flight plan
+info+	Information or revised information forwarded
alt	Other than assigned altitude reported Example: **50**
ARC mi. dir.	DME arc of VORTAC or TACAN
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 alt	Requested altitude
R/	Radar service terminated
RX	Radar Contact Lost
RV	Radar vector
RVX	Pilot resumed own navigation
HO	Handoff completed
E	Emergency
W	Warning
P	Point out initiated. Indicate the appropriate facility, sector, or position.
FUEL	Minimum fuel
EFC time	Expect further clearance at (time)
- fix	Direct to fix
FRC	Full route clearance
IAF	Initial approach fix
NORDO	No Radio
PT	Procedure turn
RLS	Release
REQ	Request
SI	Straight in

APPENDIX D

Table compares select manual strip marking with EDST Equivalents for Control Information Symbols.

Manual Strip Marking	EDST Free Text	Meaning
	T <i>dir</i>	Depart
()	*instr*	Alternate Instructions
<	AF	After
>	B4	Before
V<(Time)	V <i>time</i>	Void after
	CL	Cancel IFR
	REST	Restriction Bar
	AOA	At or Above
	AOB	At or Below
	**alt**	Other than assigned
	CR	Cruise
	HO	Radar Handoff Complete
	RX	Radar Contact Lost
	R/	Radar terminated
	/ <i>airway</i>	Join
	ARC <i>mi. dir.</i>	DME Arc
	C <i>freq</i>	Contact Communications
@	AT	At
=	=	While in controlled airspace
	WICA	While in control area
	<i>dir</i> ECA	Enter control area
	<i>dir</i> OOCA	Out of control area
	<i>dir</i> ESA	Cleared to enter surface area. Indicated direction of flight by appropriate compass letter(s)
	TSA <i>alt</i>	Through surface area and altitude indicated direction of flight by appropriate compass letter(s). Maintain special VFR conditions (altitude if appropriate) while in surface area
	SVFR	Local Special VFR operations in the vicinity of (name) airport are authorized until (time). Maintain special VFR conditions (altitude if appropriate)
	–	From-to (route, time, etc.)
	+info+	Information or revised information forwarded
	EFC <i>time</i>	Expect further clearance at