


Flight Procedures Cover Page	Task Action: FLIGHT CHECK	Task Type: SID	Estimated Chart Date: 10/07/2021	APWS Task ID: 226912A97625490B847A7326111F0C8A	APWS Project ID: 61E601E3BD8F461AA9FA0424EB19220D
Procedure: SID JHART SEVEN (RNAV) ST LOUIS, MO KSTL		Enroute: YES	Specialist: Cappabianco, Anthony		Agreement Number:
Airport ID: KSTL		Airport City: ST LOUIS			State: MO
Facility ID:	Facility Type:	Flight Inspection Remark Type: New FC Slot			
<p>Procedure Comments: AFS WAIVER - TURN CONSTRUCTION RWY 11, 12L, 12R, 29, 30L, 30R.</p> <p>CONTACT JOHN BORDY 405-954-0980.</p> <p>07/15/21: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 04/22/21.</p> <p>1. CHANGED RWY 11, 12L, 12R TAKEOFF MINIMUMS FROM "STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 2500" TO "STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 1120."</p> <p>2. CHANGED RWY 29 TAKEOFF MINIMUMS FROM "STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 2500" TO "STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 1120."</p> <p>3. CHANGED RWY 30L, 30R TAKEOFF MINIMUMS FROM "STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 2500" TO "STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 1120."</p>					
<div style="text-align: right;"> <p>Digitally signed by JOHN BORDY Jul 15, 2021</p>  </div>					

FIPC DME/DME FORM						
PROCEDURE: SID JHART SEVEN (RNAV) ST LOUIS, MO KSTL			AIRPORT NAME: ST LOUIS LAMBERT INTL		AIRPORT ID: KSTL	SPECIAL CONTROL NO: OG-04-187-21
FAC ID: JHART7		CITY: ST LOUIS			ST: MO	ORIG CHART DATE: 08/12/2021
DFL TYPE: PROC/D	THIRD PARTY: <input type="checkbox"/> YES	EST. TIME ON SITE: 1.0	REIMB. NUMBER: AC0683	PTS TASK ID:		
PREFLIGHT NOTES						
REVIEWER:					DATE:	
COMMENTS:					CHECK ONE: <input type="checkbox"/> FLT CK REQ <input type="checkbox"/> NFCR <input type="checkbox"/> REJECT	
					YES	NO
					CPV COMPLETE? <input checked="" type="checkbox"/> X <input type="checkbox"/>	
PROCEDURE RESULTS						
INSPECTION DATE: 06/22/2021	CREW #: VN452	N #: N79	INSTRUMENT PROCEDURE STATUS: <input checked="" type="checkbox"/> SAT <input type="checkbox"/> SAT W/CHANGES <input type="checkbox"/> UNSAT		ARINC CODING: <input checked="" type="checkbox"/> SAT <input type="checkbox"/> SAT/GOLD <input type="checkbox"/> UNSAT	
FLIGHT INSPECTOR SIGNATURE: darryl j wilson @ 06/22/2021 16:03			PRINTED NAME: WILSON, DARRYL JUSTIN			NOTAM INITIATED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
FLIGHT INSPECTOR REMARKS:						
DME/DME STATUS: <input checked="" type="checkbox"/> SAT <input type="checkbox"/> UNSAT		SPECIALIST SIGNATURE: joshua g-ctr brechbiel @ 07/08/2021 14:26			PRINTED NAME: Brechbiel, Joshua	
SPECIALIST REMARKS: PFC anlaysis not needed for this procedure.						
IN-FLIGHT OBSTACLE REPORT						
OBSTRUCTION ID #:	COORDINATES OR LOCATION:	GNSS ALTITUDE (MSL):	BAROMETRIC ALTITUDE (MSL):	HEIGHT ABOVE GROUND LEVEL:		

FIPC DME/DME FORM

PROCEDURE: SID JHART SEVEN (RNAV) ST LOUIS, MO KSTL		AIRPORT NAME: ST LOUIS LAMBERT INTL		AIRPORT ID: KSTL	SPECIAL CONTROL NO: OG-04-187-21
FAC ID: JHART7		CITY: ST LOUIS		ST: MO	ORIG CHART DATE: 08/12/2021
DFL TYPE: PROC/D	THIRD PARTY: <input type="checkbox"/> YES	EST. TIME ON SITE: 1.0	REIMB. NUMBER: AC0683	PTS TASK ID:	

PREFLIGHT NOTES

REVIEWER:	DATE:
COMMENTS:	CHECK ONE: <input type="checkbox"/> FLT CK REQ <input type="checkbox"/> NFCR <input type="checkbox"/> REJECT
	YES NO
	CPV COMPLETE? X

PROCEDURE RESULTS

INSPECTION DATE: 06/22/2021	CREW #: VN452	N #: N79	INSTRUMENT PROCEDURE STATUS: <input checked="" type="checkbox"/> SAT <input type="checkbox"/> SAT W/CHANGES <input type="checkbox"/> UNSAT	ARINC CODING: <input checked="" type="checkbox"/> SAT <input type="checkbox"/> SAT/GOLD <input type="checkbox"/> UNSAT
FLIGHT INSPECTOR SIGNATURE: darryl j wilson @ 06/22/2021 16:03			PRINTED NAME: WILSON, DARRYL JUSTIN	NOTAM INITIATED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

FLIGHT INSPECTOR REMARKS:		

DME/DME STATUS: <input type="checkbox"/> SAT <input type="checkbox"/> UNSAT	SPECIALIST SIGNATURE:	PRINTED NAME:
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SPECIALIST REMARKS:

IN-FLIGHT OBSTACLE REPORT

OBSTRUCTION ID #:	COORDINATES OR LOCATION:	GNSS ALTITUDE (MSL):	BAROMETRIC ALTITUDE (MSL):	HEIGHT ABOVE GROUND LEVEL:

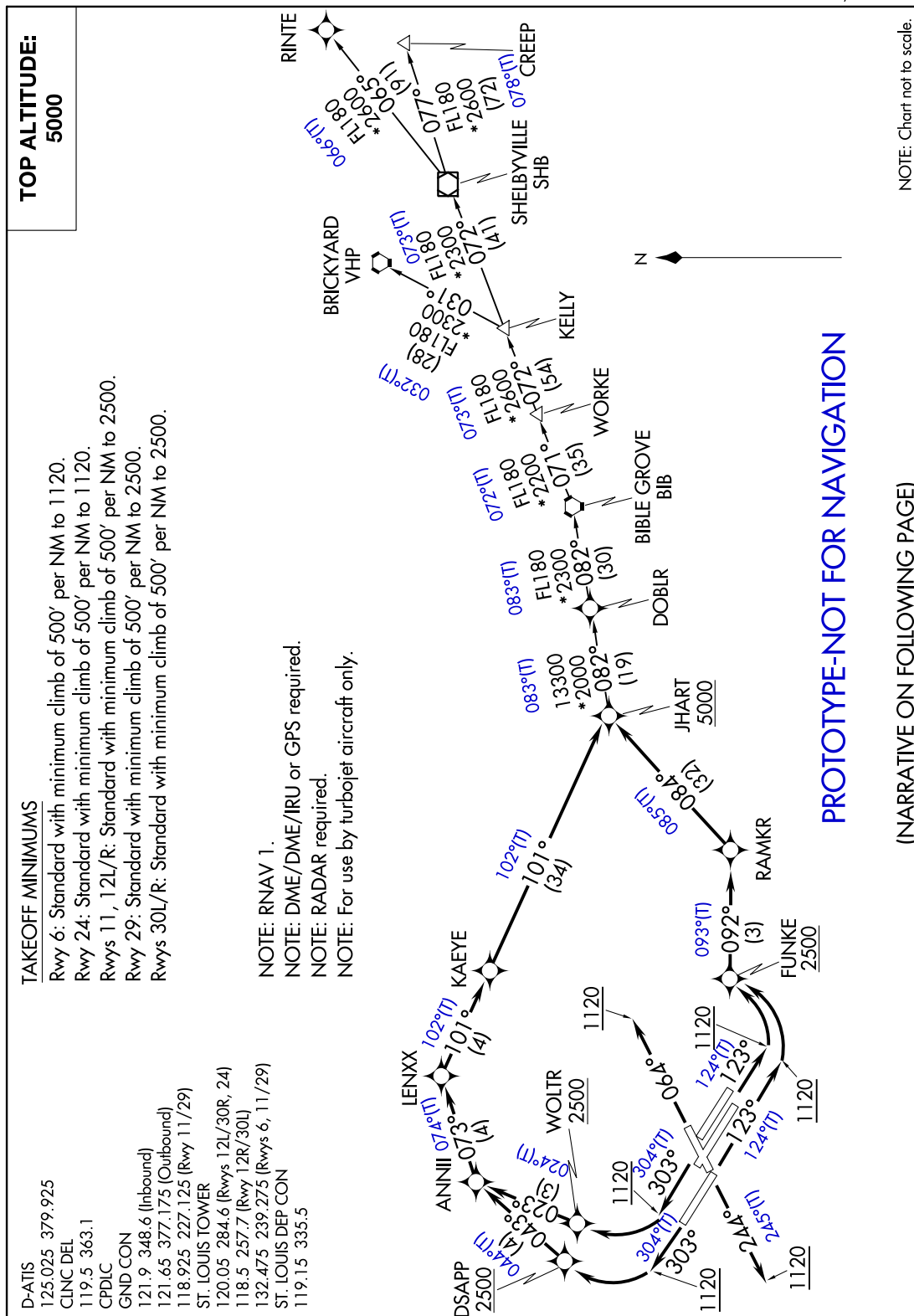
(JHART7.JHART) FIG

JHART SEVEN DEPARTURE (RNAV)

AL-360 (FAA)

ST LOUIS LAMBERT INTL (STL)

ST. LOUIS, MISSOURI



JHART SEVEN DEPARTURE (RNAV)

(JHART7.JHART) FIG

ST. LOUIS, MISSOURI

ST LOUIS LAMBERT INTL (STL)

AUTOMATED AL-360 JHART DEPARTURE

NC-3
04-21-21
COMPILER: JUN
REVIEWER:
DBL CHKR:
EFF: FIG

(JHART7.JHART) FIG

JHART SEVEN DEPARTURE (RNAV)

AL-360 (FAA)

ST LOUIS LAMBERT INTL (STL)

ST. LOUIS, MISSOURI



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 6: Climb on heading 064° to 1120, then climb on heading 064° or as assigned by ATC for vectors to cross JHART at or above 5000. Thence

TAKEOFF RUNWAY 24: Climb on heading 244° to 1120, then climb on heading 244° or as assigned by ATC for vectors to cross JHART at or above 5000. Thence

TAKEOFF RUNWAYS 11, 12L/R: Climb on heading 123° to 1120, then climbing left turn direct FUNKE, cross FUNKE at or above 2500, then on depicted route to cross JHART at or above 5000. Thence

TAKEOFF RUNWAY 29: Climb on heading 303° to 1120, then climbing right turn direct DSAPP, cross DSAPP at or above 2500, then on depicted route to cross JHART at or above 5000. Thence

TAKEOFF RUNWAYS 30L/R: Climb on heading 303° to 1120, then climbing right turn direct WOLTR, cross WOLTR at or above 2500, then on depicted route to cross JHART at or above 5000. Thence

. . . . (transition). Maintain 5000, expect filed altitude 10 minutes after departure.

BIBLE GROVE TRANSITION (JHART7.BIB)

BRICKYARD TRANSITION (JHART7.VHP)

CREEP TRANSITION (JHART7.CREEP)

DOBLR TRANSITION (JHART7.DOBLR)

ROSEWOOD TRANSITION (JHART7.ROD)

PROTOTYPE-NOT FOR NAVIGATION

AUTOMATED AL-360 JHART DEPARTURE (CONT PAGE)

NC-3

04-21-21

COMPILER: JUN

REVIEWER:

DBL CHKR:

EFF DATE: FIG

JHART SEVEN DEPARTURE (RNAV)

(JHART7.JHART) FIG

ST. LOUIS, MISSOURI

ST LOUIS LAMBERT INTL (STL)

NC-3, 25 FEB 2021 to 25 MAR 2021

D-ATIS

125.025 379.925

CINC DEL

119.5 363.1

CPDIC

GND CON

121.9 348.6 (Inbound)

121.65 377.175 (Outbound)

118.925 227.125 (Rwy 11/29)

ST. LOUIS TOWER

120.05 284.6 (Rwys 12L/30R, 24)

118.5 257.7 (Rwy 12R/30L)

132.475 239.275 (Rwys 6, 11/29)

ST. LOUIS DEP CON

119.15 335.5

TAKEOFF MINIMUMS

Rwy 6: Standard with minimum climb of 500' per NM to 1120 then minimum climb of 270' per NM to 5000.

Rwy 24: Standard with minimum climb of 500' per NM to 1120 then minimum climb of 250' per NM to 5000.

Rwys 11, 12L/R: Standard with minimum climb of 500' per NM to FUNKE.

Rwy 29: Standard with minimum climb of 500' per NM to DSAPP.

Rwys 30L/R: Standard with minimum climb of 500' per NM to WOLTR.

NOTE: RNAV 1.

NOTE: DME/DME/IRU or GPS required.

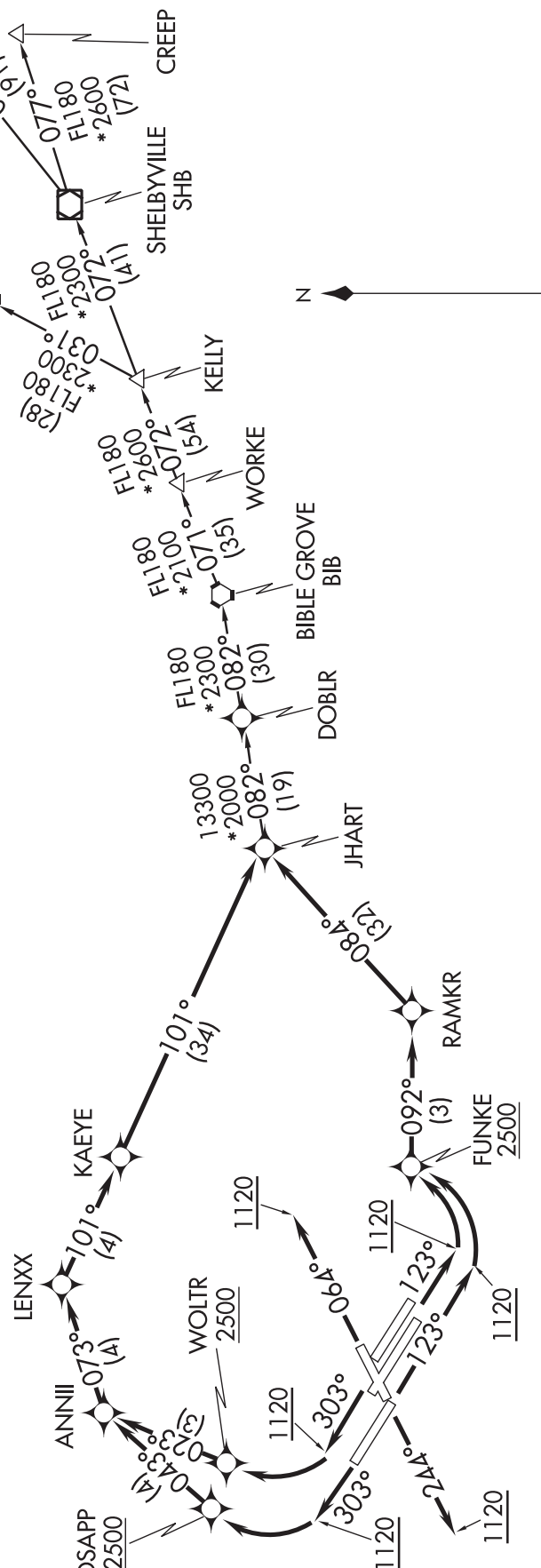
NOTE: RADAR required.

NOTE: For use by turbojet aircraft only.

TOP ALTITUDE:
5000

JHART SIX DEPARTURE (RNAV)

(JHART6.JHART) 19JUL18



(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

NC-3, 25 FEB 2021 to 25 MAR 2021



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 6: Climb heading 064° to 1120, then as assigned by ATC, expect RADAR vectors to JHART. Thence. . . .

TAKEOFF RUNWAY 24: Climb heading 244° to 1120, then as assigned by ATC, expect RADAR vectors to JHART. Thence. . . .

TAKEOFF RUNWAYS 11, 12L/R: Climb heading 123° to 1120, then left turn direct FUNKE, cross FUNKE at or above 2500, then on depicted route to JHART. Thence. . . .

TAKEOFF RUNWAY 29: Climb heading 303° to 1120, then right turn direct DSAPP, cross DSAPP at or above 2500, then on depicted route to JHART. Thence. . . .

TAKEOFF RUNWAYS 30L/R: Climb heading 303° to 1120, then right turn direct WOLTR, cross WOLTR at or above 2500, then on depicted route to JHART. Thence. . . .

. . . . (transition). Maintain 5000, expect filed altitude 10 minutes after departure.

BIBLE GROVE TRANSITION (JHART6.BIB)

BRICKYARD TRANSITION (JHART6.VHP)

CREEP TRANSITION (JHART6.CREEP)

DOBLR TRANSITION (JHART6.DOBLR)

ROSEWOOD TRANSITION (JHART6.ROD)

NC-3, 25 FEB 2021 to 25 MAR 2021

NC-3, 25 FEB 2021 to 25 MAR 2021

1. FLIGHT PROCEDURE IDENTIFICATION:

St Louis, MO
Lambert-St Louis International Airport
JHART SEVEN (RNAV) DEPARTURE

2. WAIVER REQUIRED AND APPLICABLE STANDARD:

OEA construction for the DF legs that follow the VA legs from runways 11, 12L, 12R, 29, 30L, and 30R is not possible due to the proximity of the first DF waypoints associated with each runway (i.e., DSAPP, FUNKE, and WOLTR). The DF waypoints are inside the turn arcs used for the DF leg feasibility analysis.

FAAO 8260.58B para 5-3-1 Turning Departure and FAAO 8250.58B Appendix B, DF Leg Feasibility Analysis, paragraph 3a.

3. REASON FOR WAIVER (JUSTIFICATION FOR NONSTANDARD TREATMENT):

Waiver is required to permit continued publication of the JHART SID which was originally designed prior to implementation of the DF Leg Feasibility Analysis found within Appendix B of FAAO 8260.58.

4. EQUIVALENT LEVEL OF SAFETY PROVIDED:

a. The initial turn to each DF fix is flyable as demonstrated by historical track data (see track data from 05/03/2021 to 06/16/2021).

b. An obstacle evaluation was completed using sector departure criteria extending to 25 NM. The boundaries of each sector encompasses the initial DF fix, as well as the next fix that follows each DF fix. This method was used to ensure an obstacle assessment was accomplished in the event the avionics prematurely sequenced to Fix ANNII or Fix RAMKR. No obstacle penetrations exist within the assessment areas for each applicable runway. Standard TF leg construction was also assessed beginning at each DF fix.

c. The lead carrier for KSTL (Southwest Airlines) indicated this departure procedure is flyable as charted based on five years of their historical data and based on their simulator analysis. See attached email dated July 06, 2021 from Southwest with subject, "STL JHART Departure Evaluation".

5. ALTERNATIVE ACTIONS DEEMED NOT FEASIBLE:

Moving the initial DF fixes (DSAPP, FUNKE, and WOLTR) so they fall outside the DF feasibility check turn arcs is not feasible as this would require significant costs to the FAA to amend multiple departure procedures and to complete a new environmental study. In addition, the moving the fixes will increase flying miles unnecessarily, leading to increased costs to air carriers.

6. COORDINATION WITH USER ORGANIZATIONS (SPECIFY):

Southwest Airlines

7. SUBMITTED BY:

DATE	OFFICE IDENTIFICATION	TITLE
07/06/2021	AJV-A422	Manager

SIGNATURE

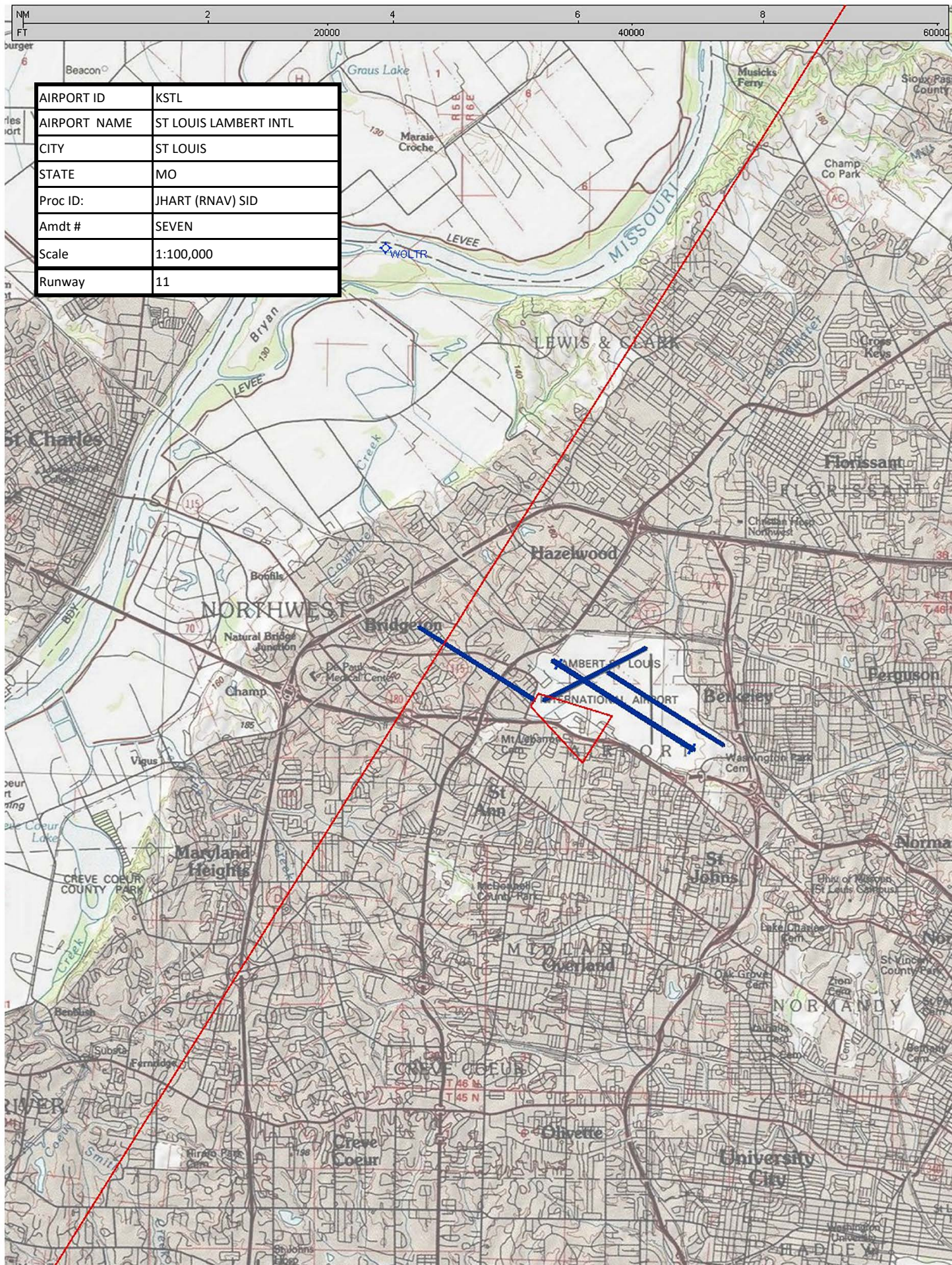
Digitally signed by
JOHN BORDY
Jul 07, 2021

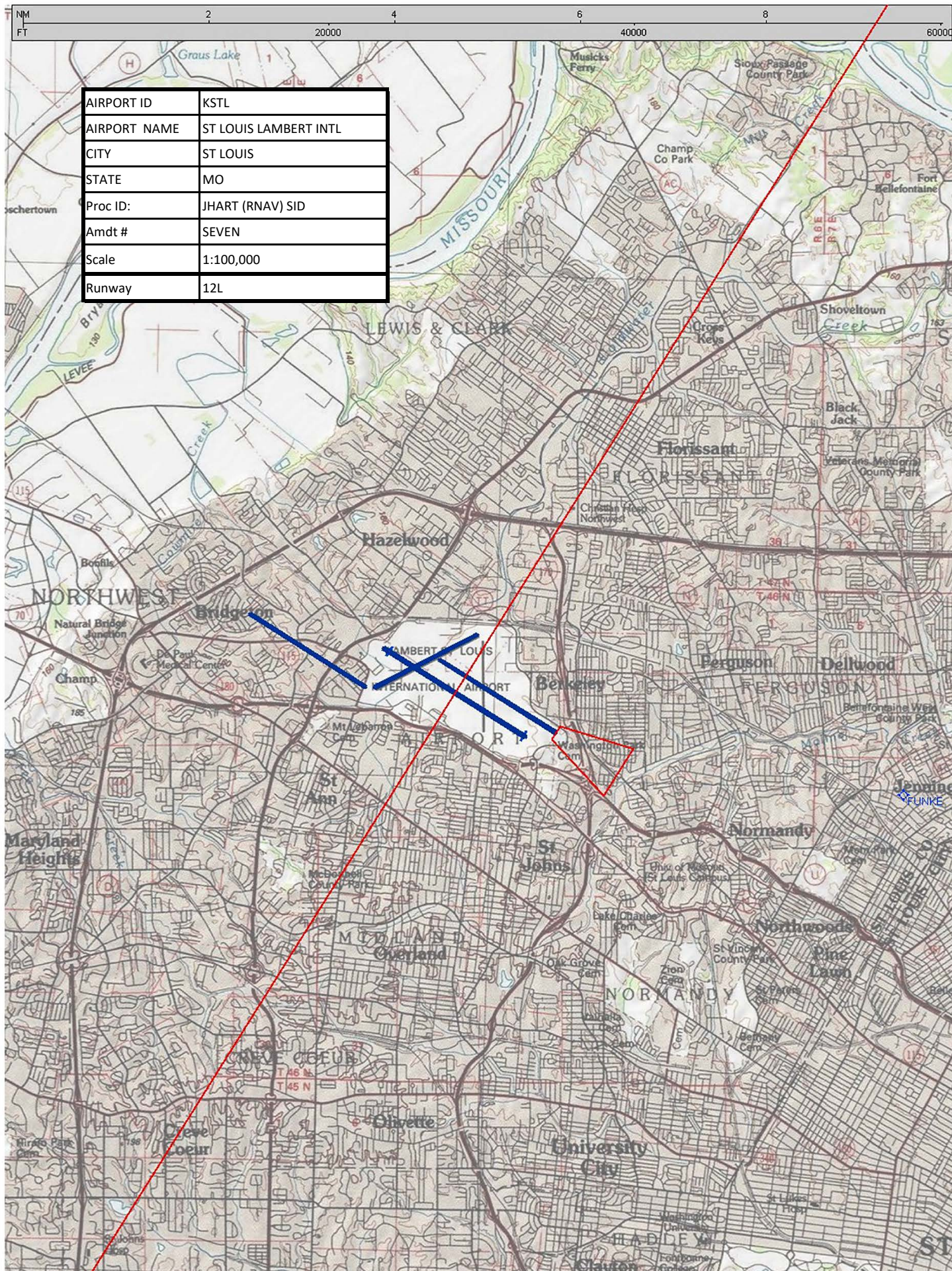
8. AFS ACTIONS:

☐ APPROVED ☐ DISAPPROVED ☐ NOT REQUIRED

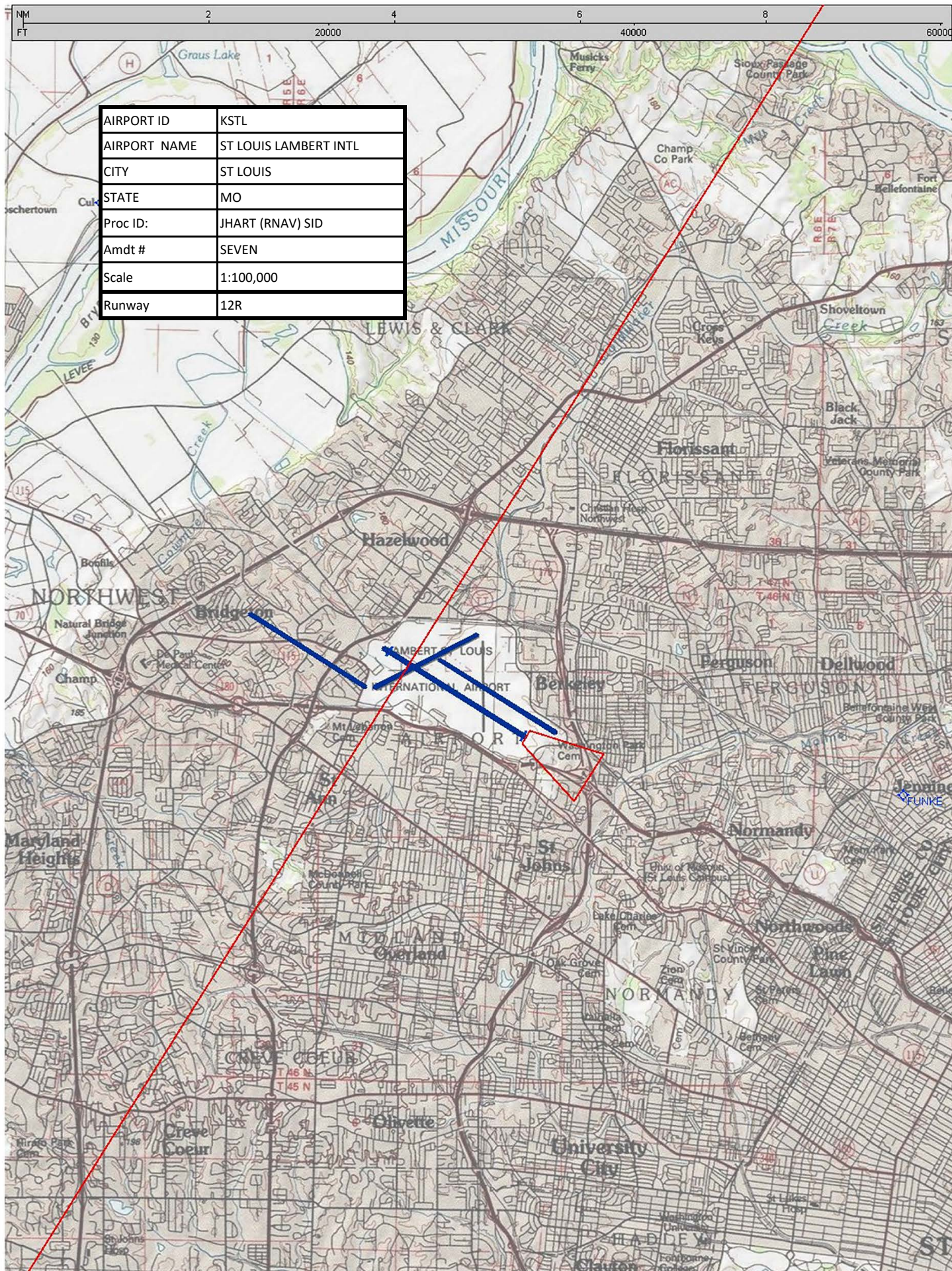
DATE	ROUTING SYMBOL	SIGNATURE
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AIRPORT ID	KSTL
AIRPORT NAME	ST LOUIS LAMBERT INTL
CITY	ST LOUIS
STATE	MO
Proc ID:	JHART (RNAV) SID
Amdt #	SEVEN
Scale	1:100,000
Runway	6

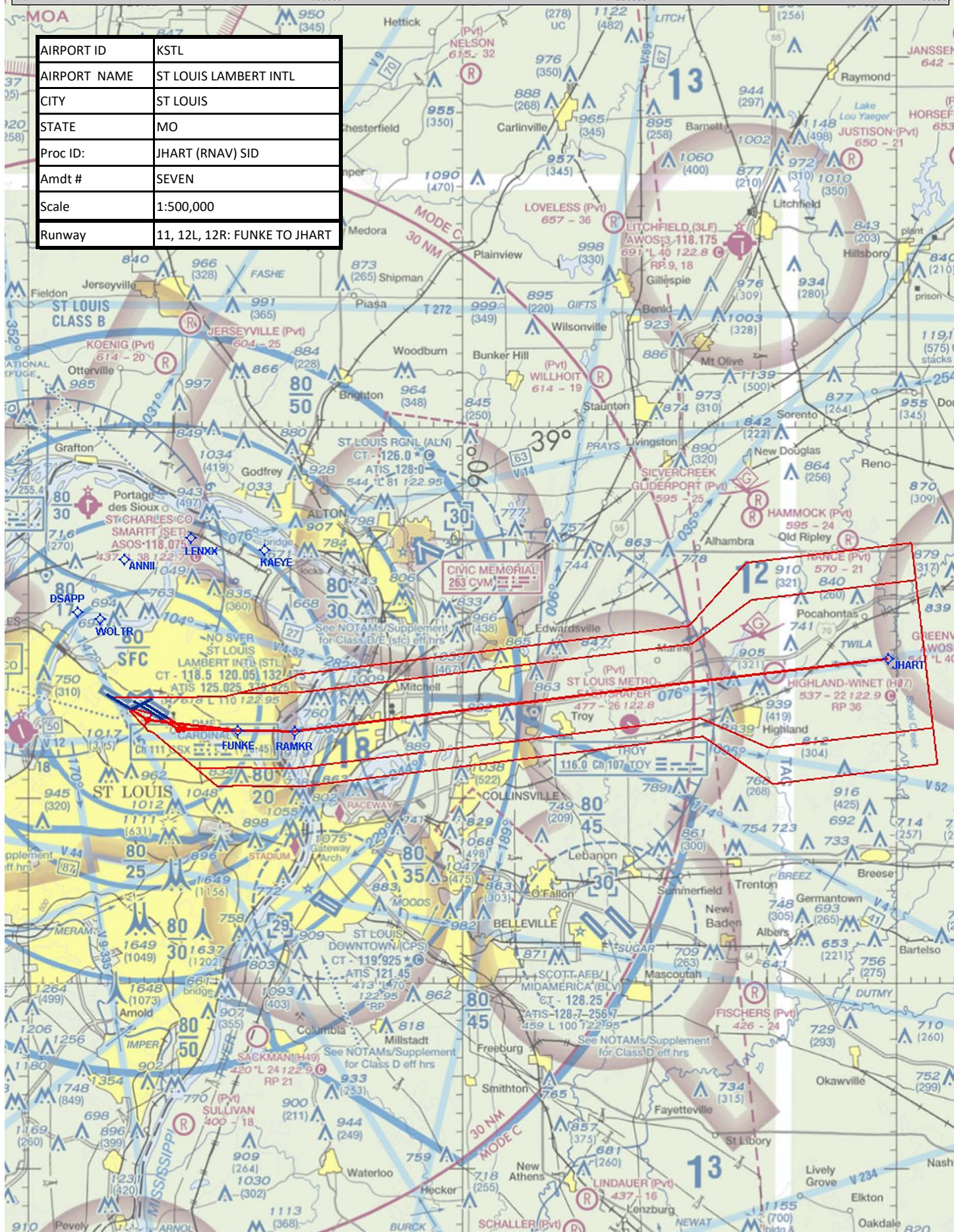




AIRPORT ID	KSTL
AIRPORT NAME	ST LOUIS LAMBERT INTL
CITY	ST LOUIS
STATE	MO
Proc ID:	JHART (RNAV) SID
Amdt #	SEVEN
Scale	1:100,000
Runway	12L



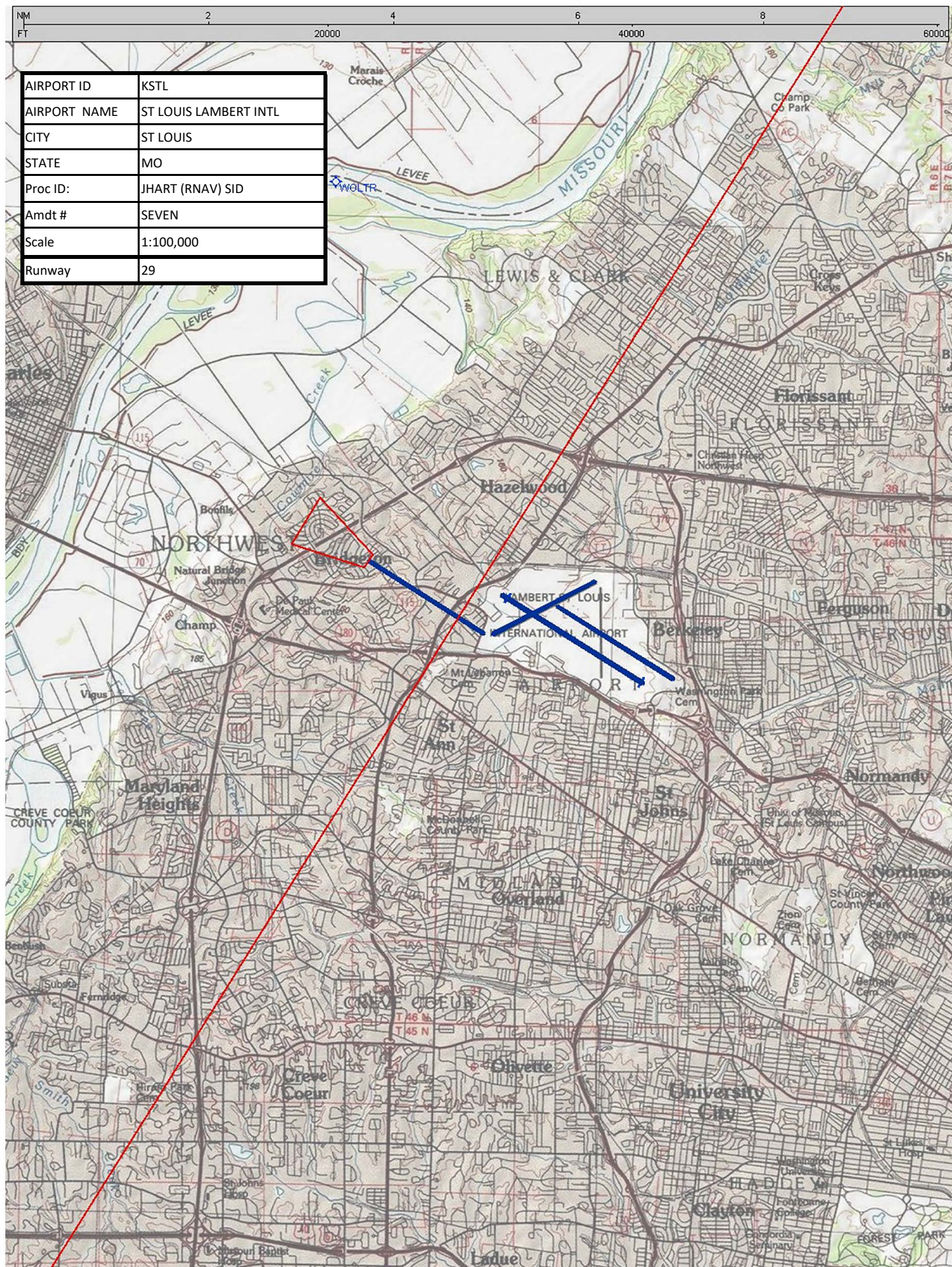
AIRPORT ID	KSTL
AIRPORT NAME	ST LOUIS LAMBERT INTL
CITY	ST LOUIS
STATE	MO
Proc ID:	JHART (RNAV) SID
Amdt #	SEVEN
Scale	1:500,000
Runway	11, 12L, 12R: FUNKE TO JHART



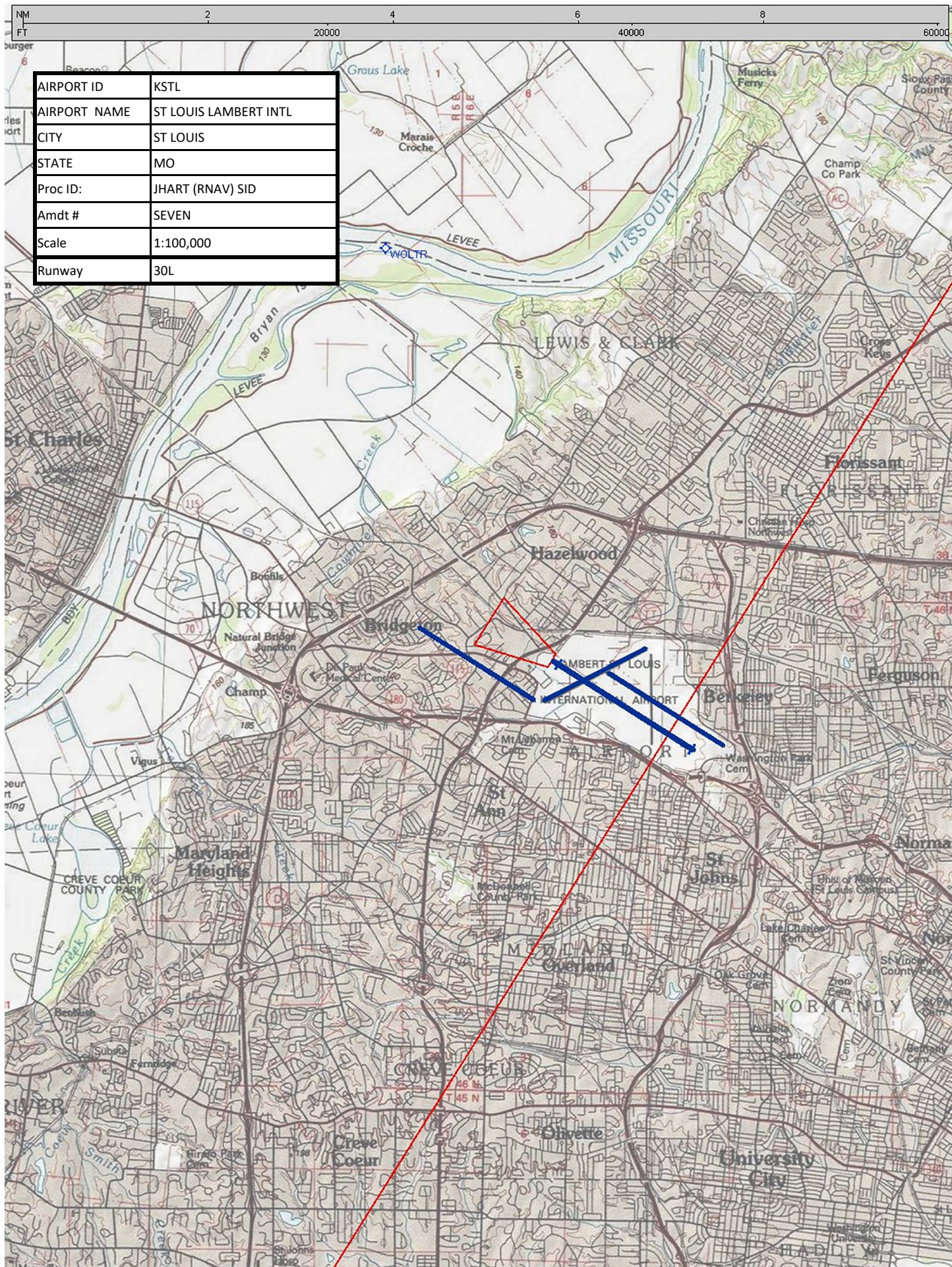
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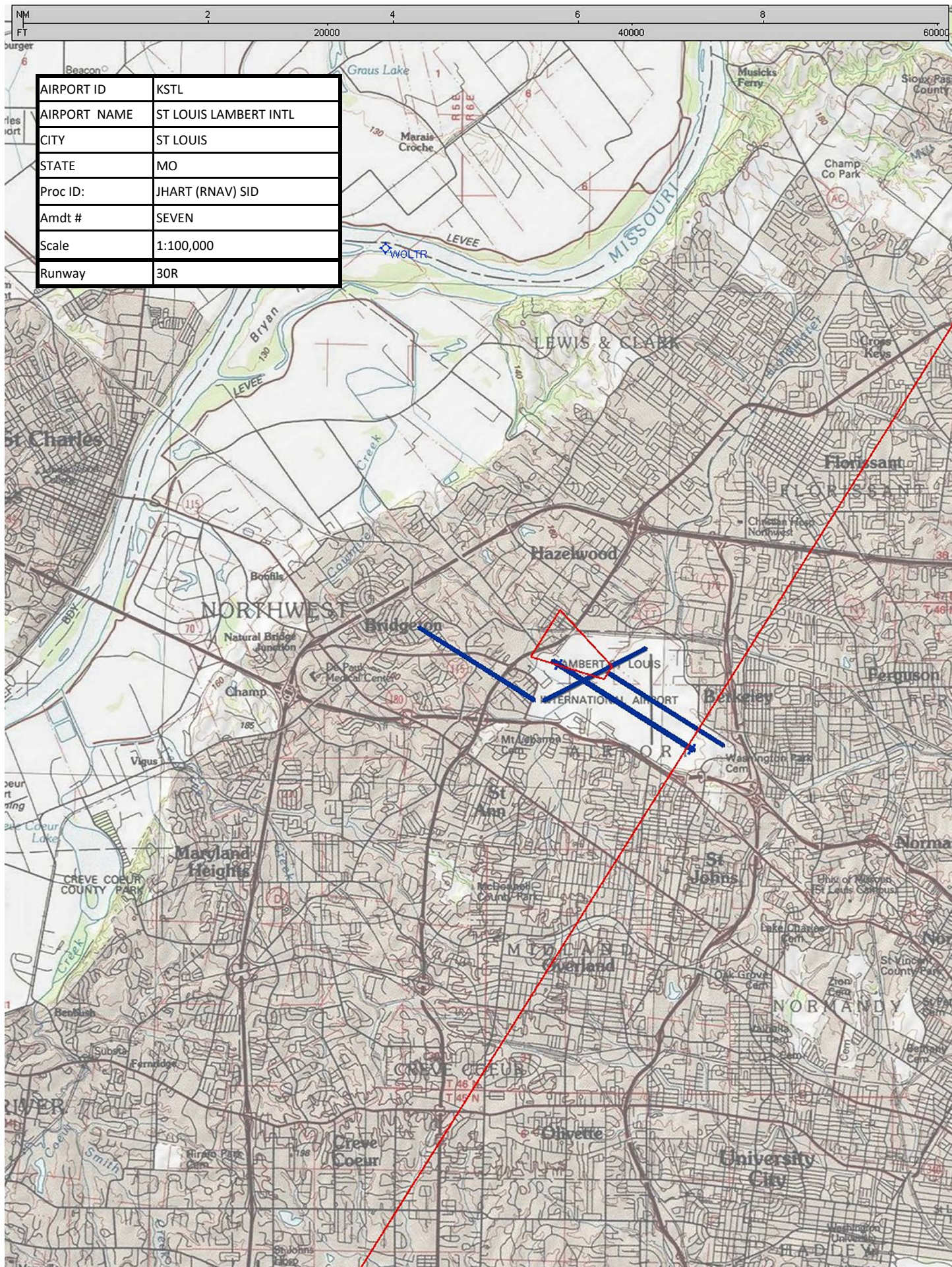


AIRPORT ID	KSTL
AIRPORT NAME	ST LOUIS LAMBERT INTL
CITY	ST LOUIS
STATE	MO
Proc ID:	JHART (RNAV) SID
Amdt #	SEVEN
Scale	1:100,000
Runway	29



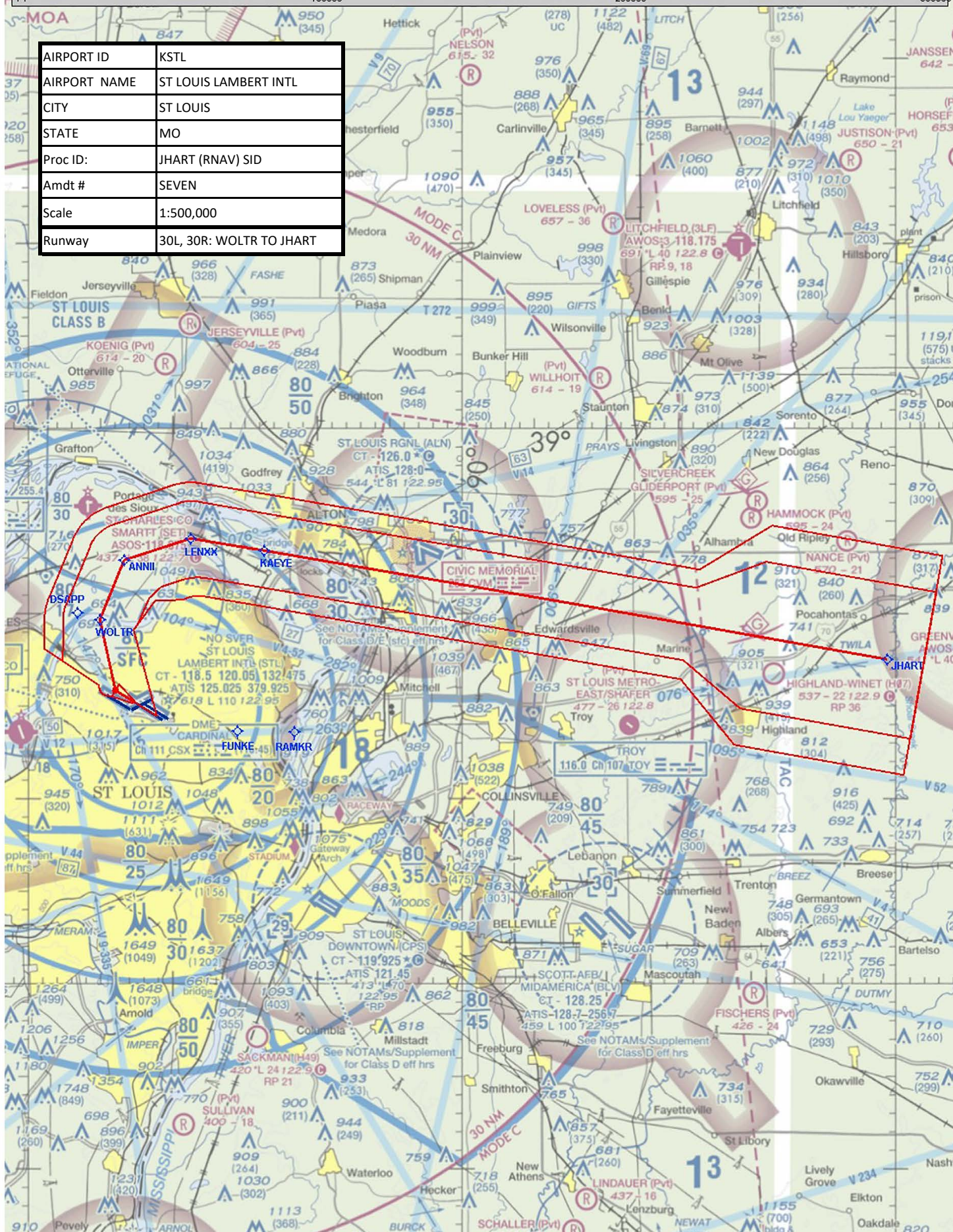
AIRPORT ID	KSTL
AIRPORT NAME	ST LOUIS LAMBERT INTL
CITY	ST LOUIS
STATE	MO
Proc ID:	JHART (RNAV) SID
Amdt #	SEVEN
Scale	1:500,000
Runway	29: DSAPP TO JHART

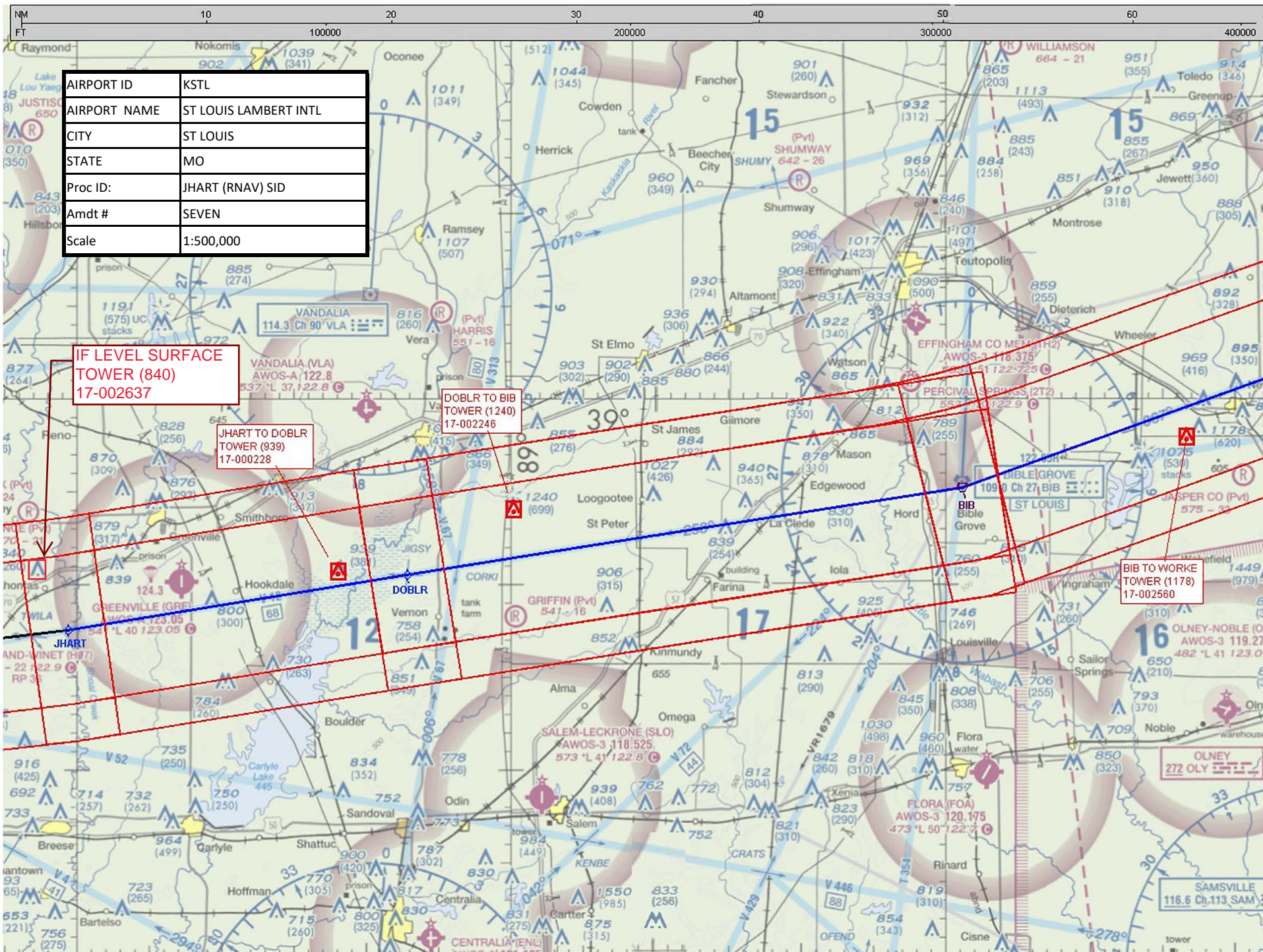






AIRPORT ID	KSTL
AIRPORT NAME	ST LOUIS LAMBERT INTL
CITY	ST LOUIS
STATE	MO
Proc ID:	JHART (RNAV) SID
Amdt #	SEVEN
Scale	1:500,000
Runway	30L, 30R: WOLTR TO JHART





AIRPORT ID	KSTL
AIRPORT NAME	ST LOUIS LAMBERT INTL
CITY	ST LOUIS
STATE	MO
Proc ID:	JHART (RNAV) SID
Amdt #	SEVEN
Scale	1:500,000

IF LEVEL SURFACE
TOWER (840)
17-002637

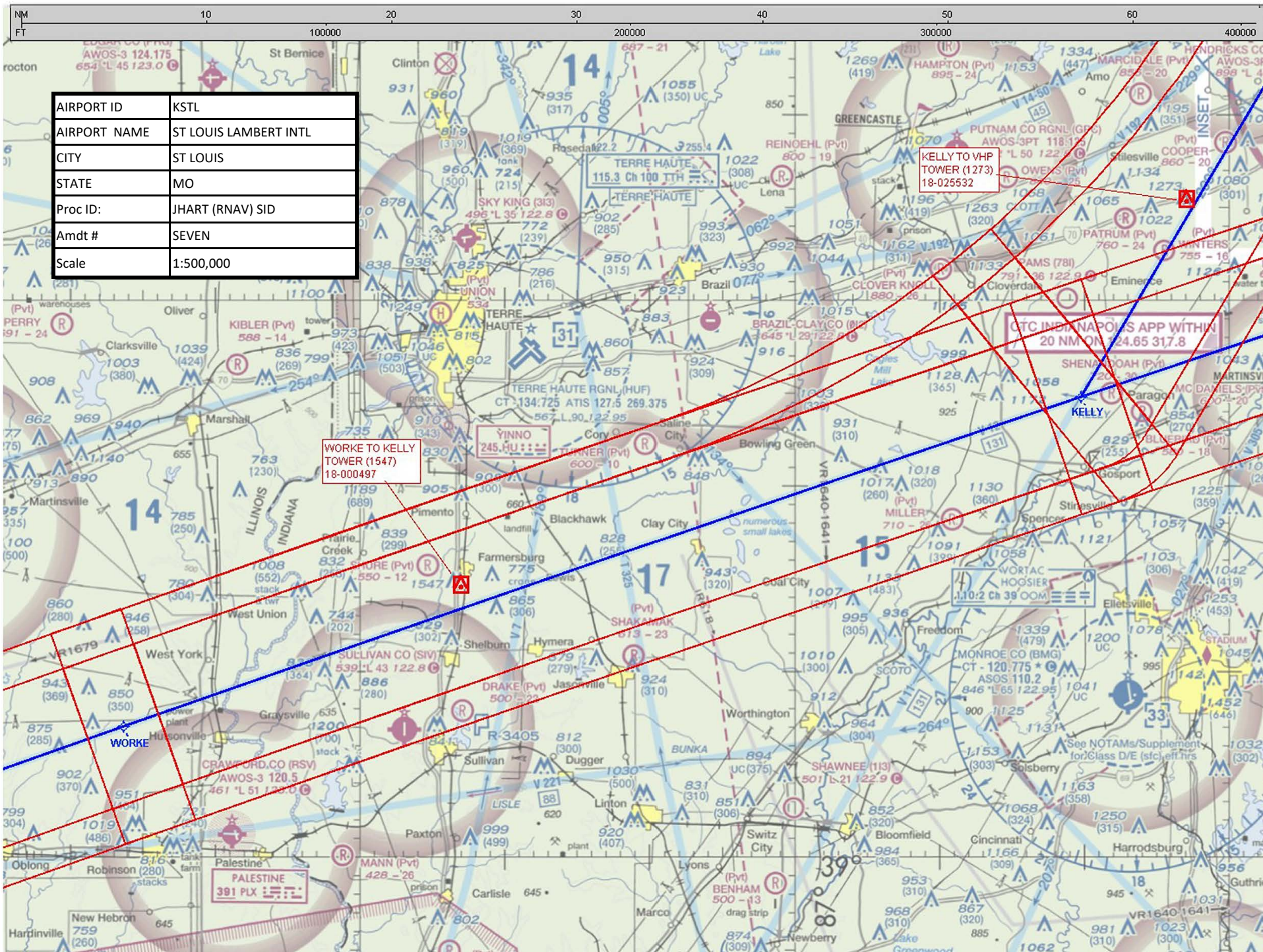
JHART TO DOBLR
TOWER (839)
17-000228

DOBLR TO BIB
TOWER (1240)
17-002246

BIB TO WORKE
TOWER (1178)
17-002560

OLNEY
272 OLY

AIRPORT ID	KSTL
AIRPORT NAME	ST LOUIS LAMBERT INTL
CITY	ST LOUIS
STATE	MO
Proc ID:	JHART (RNAV) SID
Amdt #	SEVEN
Scale	1:500,000

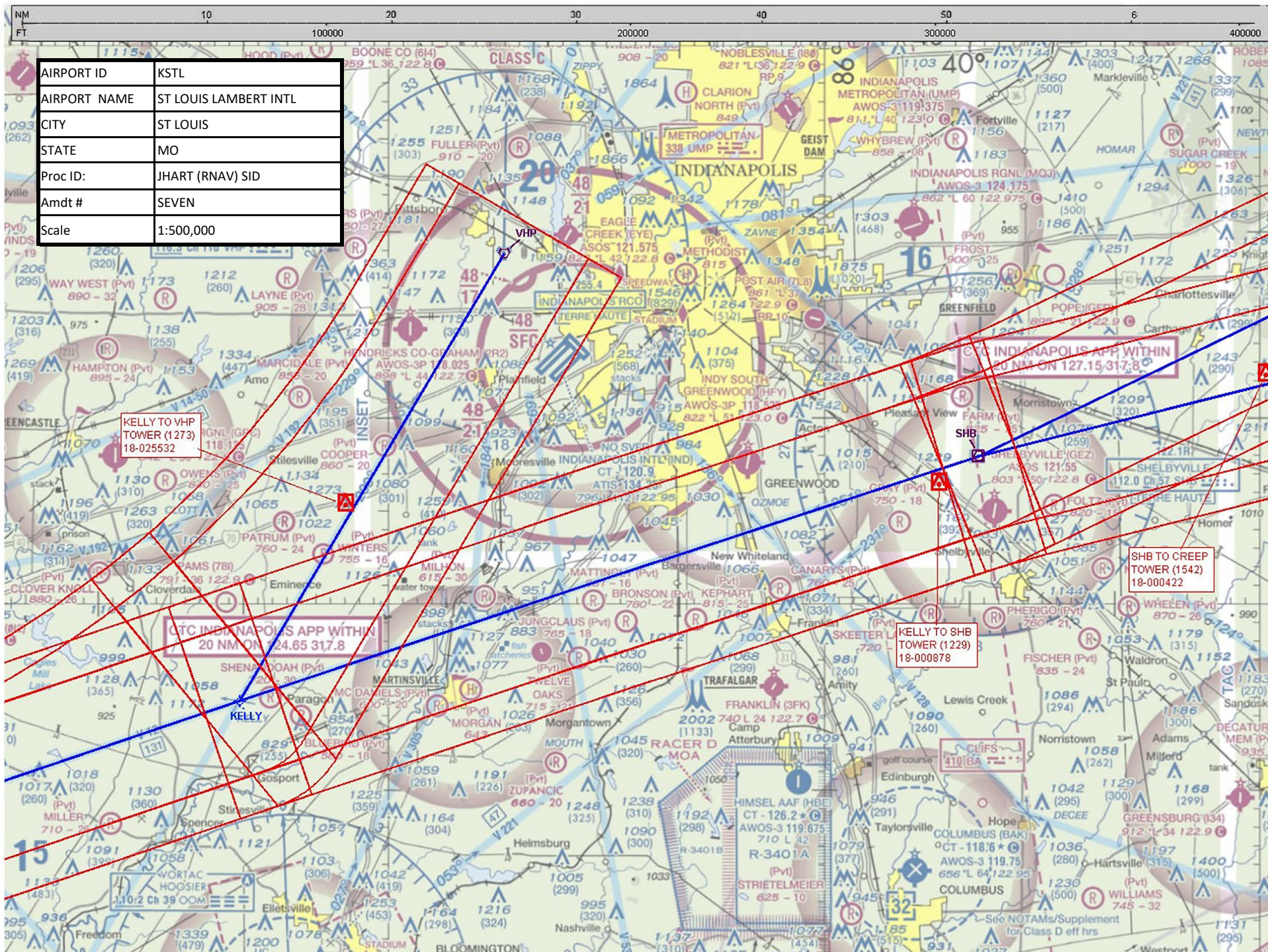


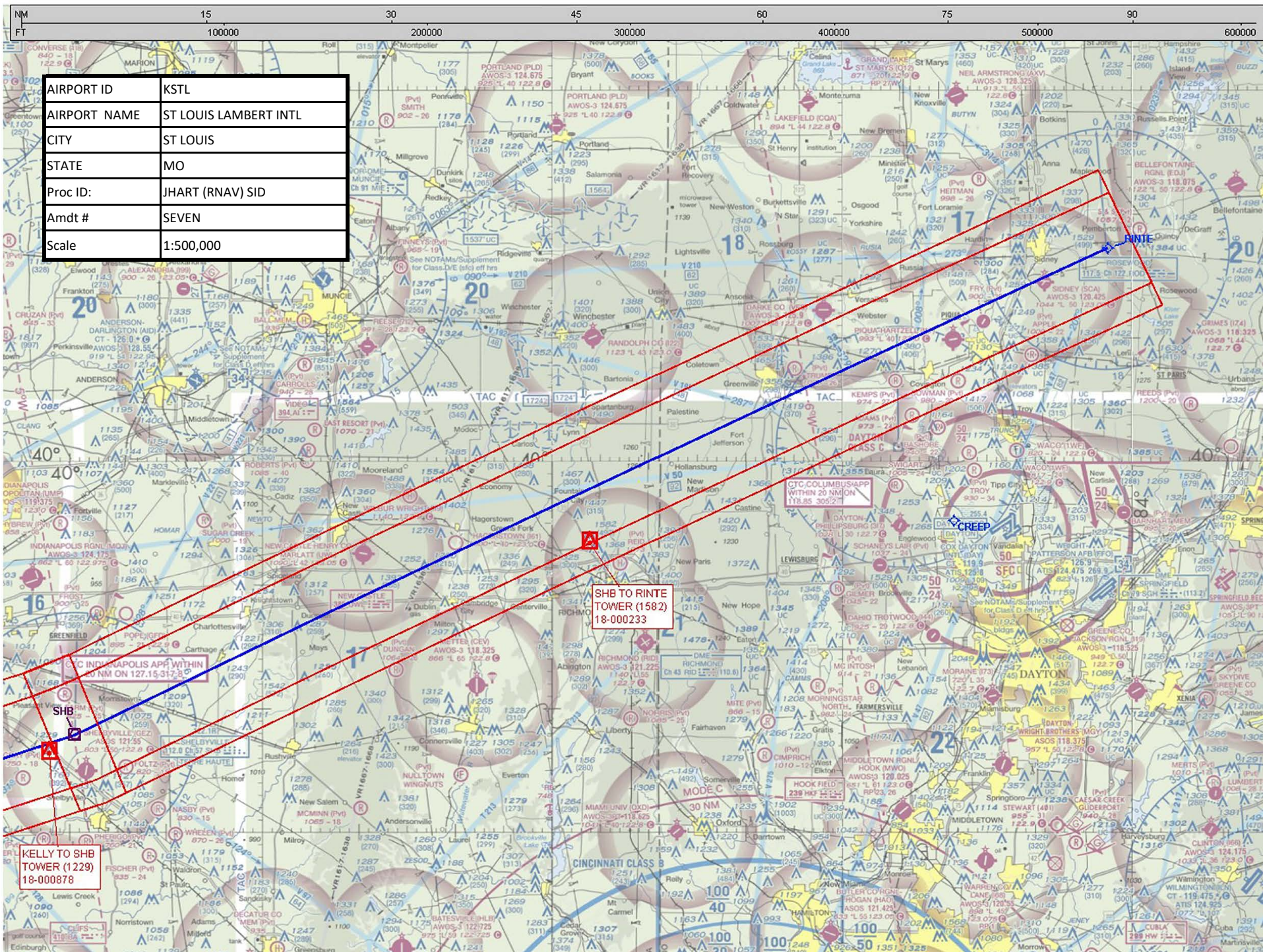
WORKE TO KELLY
TOWER (1547)
18-000497

KELLY TO VHP
TOWER (1273)
18-025532

CTC INDIANAPOLIS APP WITHIN
20 NM ON 124.65 317.8

PALESTINE
391 PLX





AIRPORT ID	KSTL
AIRPORT NAME	ST LOUIS LAMBERT INTL
CITY	ST LOUIS
STATE	MO
Proc ID:	JHART (RNAV) SID
Amdt #	SEVEN
Scale	1:500,000

SHB TO RINTE
TOWER (1582)
18-000233

KELLY TO SHB
TOWER (1229)
18-000878

**FEDERAL AVIATION ADMINISTRATION
CATEGORICAL EXCLUSION DECLARATION**

**Amendment of JHART SIX SID
St. Louis Lambert International Airport, St Louis, MO**

Description of Action:

This action amends the JHART SIX Standard Instrument Departure (SID) at the St. Louis Lambert International Airport. The amendment includes changing WORKE, KELLY, and CREEP from fixes to Area Navigation (RNAV) waypoints; and replacing ROD very high frequency omnidirectional range (VOR) with RINTE waypoint in the same location. There are no lateral or altitude changes and aircraft will be above Flight Level 180 at KELLY. The amendment is needed to increase safety and flyability of the procedure.

Declaration of Exclusion:

The FAA has reviewed the above referenced proposed action and it has been determined, by the undersigned, to be categorically excluded from further environmental documentation according to FAA Order 1050.1F, "Environmental Impacts: Policies and Procedures." The implementation of this action will not result in any extraordinary circumstances in accordance with FAA Order 1050.1F.

Basis for this Determination:

This review was conducted in accordance with policies and procedures in Department of Transportation Order 5610.1C, "Procedures for Considering Environmental Impacts" and FAA Order 1050.1F.

The proposed procedure amendment change meets the following categorical exclusions contained in FAA Order 1050.1F:

5-6.5 k. Publication of existing air traffic control procedures that do not essentially change existing tracks, create new tracks, change altitude, or change concentration of aircraft on these tracks.

Recommended by:

**KRISTI
REGOTTI**

Digitally signed by
KRISTI REGOTTI
Date: 2021.04.21
15:12:46 -05'00'

Kristi Regotti, Environmental Protection Specialist, Operations Support Group, ATO Central Service Center, AJV-C25

Approved by:

**CHRISTOPHER L
SOUTHERLAND**

Digitally signed by
CHRISTOPHER L
SOUTHERLAND
Date: 2021.04.22 12:15:43
-05'00'

Christopher L. Southerland, Manager, Operations Support Group, ATO Center Service Center, AJV-C2