

|   |                              |   |                                     |   |  |
|---|------------------------------|---|-------------------------------------|---|--|
| Flight Procedures Cover Page  | Task Action:<br>FLIGHT CHECK | Task Type:<br>SID                             | Estimated Chart Date:<br>07/11/2024 | APWS Task ID:<br>A91145ED447E4B39A7EC413400639B9A | APWS Project ID:<br>7AB4963D873447588CD5E3A50156708A |
| Procedure:<br>SID SPILR ONE (RNAV) LOUISVILLE KY KSDF   |                              | Enroute:<br>YES                               | Specialist:<br>Melton, William      |   | Agreement Number:                                    |
| Airport ID:<br>KSDF   |                              |   | Airport City:<br>LOUISVILLE         |   | State:<br>KY   |
| Facility ID:  | Facility Type:               | Flight Inspection Remark Type:<br>New FC Slot |                                     |   |  |
| <div>Procedure Comments:</div> <div>ACTIVE DATA USED FOR KSDF<br/>CONTACT MIKE GARRITY (405) 954-5602<br/>ESV(S) CINCINNATI COVINGTON (CVG) TACAN (1), FT KNOX (FTK) DME (1)<br/>APPROVAL LETTER SDF RWY 17L TO MURCA.</div> <div>03/25/24: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 03/04/24.<br/>1. CHANGED TRANSITION CODE SPILR1.GNGIN TO SPILR1.BNGIN - CORRECT TYPOGRAPHICAL ERROR</div> <div>05/01/24: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 03/04/24.<br/>1. F FILE: DELETED DO NOT CHART MOCA FROM 8260-15B - CORRECT ADMINISTRATIVE ERROR.<br/>2. P FILE: UPDATED PRO RUN TO REPLACE RWY 35R FIX GRIPZ WITH BAALK.</div> |                              |   |                                     |   |  |



| <b>FIPC BASIC FORM</b>   |   |                                  |  |   |   |  |
|--|---|----------------------------------|--|---|---|--|
| <b>PROCEDURE:</b><br>SID SPILR ONE (RNAV) LOUISVILLE KY KSDF   |   |                                  | <b>AIRPORT NAME:</b><br>LOUISVILLE MUHAMMAD ALI INTL   |   | <b>AIRPORT ID:</b><br>KSDF  | <b>SPECIAL CONTROL NO:</b><br>AG-03-281-24   |
| <b>FAC ID:</b> SPILR1  |   | <b>CITY:</b> LOUISVILLE          |  |   | <b>ST:</b> KY   | <b>ORIG CHART DATE:</b> 07/11/2024   |
| <b>DFL TYPE:</b><br>PROC/D   | <b>THIRD PARTY:</b><br><input type="checkbox"/> YES | <b>EST. TIME ON SITE:</b><br>1.0 | <b>REIMB. NUMBER:</b>  | <b>PTS TASK ID:</b><br>A91145ED447E4B39A7EC413400639B9A |   |  |
| <b>PREFLIGHT NOTES</b>   |   |                                  |  |   |   |  |
| <b>REVIEWER:</b> jeffrey eckman  |   |                                  |  |   | <b>DATE:</b> 04/16/2024   |  |
| <b>COMMENTS:</b><br>-P File for RWY 35R has GRIPZ listed instead of BAALK. Please correct DME/DME files so DME verification can be completed.<br>-There was a remark that procedures forgot to have removed, "DO NOT CHART MOCA", on the following procedures. |   |                                  |  |   | <b>CHECK ONE:</b><br><input type="checkbox"/> FLT CK REQ <input type="checkbox"/> NFCR <input checked="" type="checkbox"/> REJECT<br><div style="border-top: 1px solid black; display: flex; justify-content: space-between; padding-top: 5px;"> <span></span> <span>YES</span> <span>NO</span> </div> <div style="border-top: 1px solid black; display: flex; justify-content: space-between; padding-top: 5px;"> <span>CPV COMPLETE?</span> <span>X</span> <span></span> </div> |  |
| <b>PROCEDURE RESULTS</b>   |   |                                  |  |   |   |  |
| <b>INSPECTION DATE:</b><br>04/25/2024  | <b>CREW #:</b><br>VN327                             | <b>N #:</b><br>N79               | <b>INSTRUMENT PROCEDURE STATUS:</b><br><input checked="" type="checkbox"/> SAT <input type="checkbox"/> SAT W/CHANGES <input type="checkbox"/> UNSAT |   | <b>ARINC CODING:</b><br><input checked="" type="checkbox"/> SAT <input type="checkbox"/> SAT/GOLD <input type="checkbox"/> UNSAT  |  |
| <b>FLIGHT INSPECTOR SIGNATURE:</b><br>jeffrey eckman @ 04/26/2024 17:54  |   |                                  | <b>PRINTED NAME:</b><br>ECKMAN, JEFFREY ALAN   |   |   | <b>NOTAM INITIATED?</b><br><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO |
| <b>FLIGHT INSPECTOR REMARKS:</b><br>Procedure is SAT as proposed.  |   |                                  |  |   |   |  |
| <b>IN-FLIGHT OBSTACLE REPORT</b>   |   |                                  |  |   |   |  |
| <b>OBSTRUCTION ID #:</b>   | <b>COORDINATES OR LOCATION:</b>                     | <b>GNSS ALTITUDE (MSL):</b>      | <b>BAROMETRIC ALTITUDE (MSL):</b>  | <b>HEIGHT ABOVE GROUND LEVEL:</b>                       |   |  |

## ESV Details

|   |          |                           |          |                            |                  |                 |
|---|----------|---------------------------|----------|----------------------------|------------------|-----------------|
| Originating Office :AJV-C2  |          | Airspace Docket Number :  |          | Request Type :Establish    |                  |                 |
| <b>Facility Data</b>  |          |                           |          |                            |                  |                 |
| Chart Name:CINCINNATI COVINGTON   |          | City:CINCINNATI COVINGTON |          | Ident:CVG                  |                  | State:KY        |
| Type/Class: TACAN   |          | Frequency: M1207          |          | Reference Number: 23105025 |                  |                 |
| <b>Extended Service Volume Data: (Requesting Officer)</b>   |          |                           |          |                            |                  |                 |
| ESV ID  | Radial 1 | Radial 2                  | Distance | Minimum Altitude           | Maximum Altitude |                 |
| FAA 672108 - 079  | 220      | 245                       | 77       | 30                         | 150              |                 |
| Requirement: DME COVERAGE AND MITIGATE CRITICAL DMES FOR SPILR SID  |          |                           |          |                            |                  |                 |
| Signature:Medina Jose   |          | Routing Symbol:           |          |                            |                  | Date:10/20/2023 |
| <b>Extended Service Volume Data: (FMO)</b>  |          |                           |          |                            |                  |                 |
| ESV ID  | Radial 1 | Radial 2                  | Distance | Minimum Altitude           | Maximum Altitude | Action Type     |
| FAA 672108 - 079  | 220      | 245                       | 77       | 30                         | 150              | APPROVE         |
| Requirement/Remarks: DME COVERAGE AND MITIGATE CRITICAL DMES FOR SPILR SIDAPPROVED. FREQ. PROTECTION & FIELD STRENGTH. PENDING FLIGHT INSPECT @ REQUIRED. DIST. & MIN ALT.. |          |                           |          |                            |                  |                 |
| Signature:Demas Tariku  |          | Routing Symbol:           |          |                            | Date:10/26/2023  |                 |
| <b>Extended Service Volume Data: (Super FMO)</b>  |          |                           |          |                            |                  |                 |
| ESV ID  | Radial 1 | Radial 2                  | Distance | Minimum Altitude           | Maximum Altitude | Action Type     |
| FAA 672108 - 079  | 220      | 245                       | 77       | 40                         | 150              | RESTRICT        |
| Requirement/Remarks: DME COVERAGE AND MITIGATE CRITICAL DMES FOR SPILR SIDRESTRICTED. FIELD STRENGTH TOO LOW. MIN. ALT FL=4000 FEET.  |          |                           |          |                            |                  |                 |
| Signature:Hughes Dennis   |          | Routing Symbol:           |          |                            | Date:10/27/2023  |                 |
| <b>Extended Service Volume Data: (Super FMO)</b>  |          |                           |          |                            |                  |                 |
| ESV ID  | Radial 1 | Radial 2                  | Distance | Minimum Altitude           | Maximum Altitude | Action Type     |
| FAA 672108 - 079  | 220      | 245                       | 77       | 40                         | 150              | RESTRICT        |
| Requirement/Remarks: DME COVERAGE AND MITIGATE CRITICAL DMES FOR SPILR SIDRESTRICTED. FIELD STRENGTH TOO LOW. MIN. ALT FL=4000 FEET.  |          |                           |          |                            |                  |                 |
| Signature:Hughes Dennis   |          | Routing Symbol:           |          |                            | Date:10/27/2023  |                 |
| <b>Extended Service Volume Data: (FIFO)</b>   |          |                           |          |                            |                  |                 |

|                      |          |                 |          |                  |                  |             |
|----------------------|----------|-----------------|----------|------------------|------------------|-------------|
| ESV ID               | Radial 1 | Radial 2        | Distance | Minimum Altitude | Maximum Altitude | Action Type |
| FAA 672108 - 079     | 220      | 245             |          |                  |                  |             |
| Requirement/Remarks: |          |                 |          |                  |                  |             |
| Signature:           |          | Routing Symbol: |          |                  | Date:            |             |

**ESV Details**

|   |          |                          |          |                            |                  |                 |
|---|----------|--------------------------|----------|----------------------------|------------------|-----------------|
| Originating Office :AJV-C2  |          | Airspace Docket Number : |          | Request Type :Establish    |                  |                 |
| <b>Facility Data</b>  |          |                          |          |                            |                  |                 |
| Chart Name:FT KNOX  |          | City:FT KNOX             |          | Ident:FTK                  |                  | State:KY        |
| Type/Class: DME   |          | Frequency: M994          |          | Reference Number: 23105026 |                  |                 |
| <b>Extended Service Volume Data: (Requesting Officer)</b>   |          |                          |          |                            |                  |                 |
| ESV ID  | Radial 1 | Radial 2                 | Distance | Minimum Altitude           | Maximum Altitude |                 |
| AR 125133 - 008   | 17       | 34                       | 27       | 16                         | 128              |                 |
| Requirement: DME COVERAGE AND MITIGATE CRITICAL DMES FOR SPILR SID  |          |                          |          |                            |                  |                 |
| Signature:Medina Jose   |          | Routing Symbol:          |          |                            |                  | Date:10/20/2023 |
| <b>Extended Service Volume Data: (FMO)</b>  |          |                          |          |                            |                  |                 |
| ESV ID  | Radial 1 | Radial 2                 | Distance | Minimum Altitude           | Maximum Altitude | Action Type     |
| AR 125133 - 008   | 17       | 34                       | 27       | 16                         | 128              | APPROVE         |
| Requirement/Remarks: DME COVERAGE AND MITIGATE CRITICAL DMES FOR SPILR SIDAPPROVED. FREQ. PROTECTION & FIELD STRENGTH. PENDING FLIGHT INSPECT @ REQUIRED. DIST. & MIN ALT.. |          |                          |          |                            |                  |                 |
| Signature:Demas Tariku  |          | Routing Symbol:          |          |                            | Date:10/26/2023  |                 |
| <b>Extended Service Volume Data: (Super FMO)</b>  |          |                          |          |                            |                  |                 |
| ESV ID  | Radial 1 | Radial 2                 | Distance | Minimum Altitude           | Maximum Altitude | Action Type     |
| AR 125133 - 008   | 17       | 34                       | 27       | 16                         | 128              | APPROVE         |
| Requirement/Remarks: DME COVERAGE AND MITIGATE CRITICAL DMES FOR SPILR SIDAPPROVED. FREQ. PROTECTION & FIELD STRENGTH. PENDING FLIGHT INSPECT @ REQUIRED. DIST. & MIN ALT.. |          |                          |          |                            |                  |                 |
| Signature:Hughes Dennis   |          | Routing Symbol:          |          |                            | Date:10/27/2023  |                 |
| <b>Extended Service Volume Data: (FIFO)</b>   |          |                          |          |                            |                  |                 |
| ESV ID  | Radial 1 | Radial 2                 | Distance | Minimum Altitude           | Maximum Altitude | Action Type     |
| AR 125133 - 008   | 17       | 34                       |          |                            |                  |                 |
| Requirement/Remarks:  |          |                          |          |                            |                  |                 |
| Signature:  |          | Routing Symbol:          |          |                            | Date:            |                 |



# Federal Aviation Administration

---

---

## Memorandum

Date: December 15, 2023  
To: Tom Lattimer, Airspace Manager CSA PBN Team  
From: Jeffrey Chester, TCID Airspace and Procedures Manager  
Prepared by: Robert Ellis, Senior ATC Specialist, NAVTAC Support  
Subject: Letter of Approval Request SPILR SID, KSDF

---

---

KSDF SPILR Standard Instrument Departure (SID): RWY17L to MURCA

Currently, FAAO 8260.46J, para 2-1-1e(2)(b)2, the maximum permissible climb gradient is 500 ft/nm. The climb gradient (506.03 ft/NM) from LURVL to MURCA is greater than the maximum permissible gradient allowed. Flight Standards approval is required.

The SPILR SID serves Louisville Muhammad Ali International Airport. The climb gradient of 506.03 ft/NM from LURVL to MURCA is calculated from altitude of at or above 4,000ft MSL at LURVL climbing to an altitude of at or above 8,000ft MSL at MURCA, over a distance 7.90NM. However, the gradient over multiple fixes is within the maximum permissible climb gradient. From the DER of RWY17L to MURCA is a track distance of 18.32NM. This equates to a climb gradient of 436.68 ft/NM.

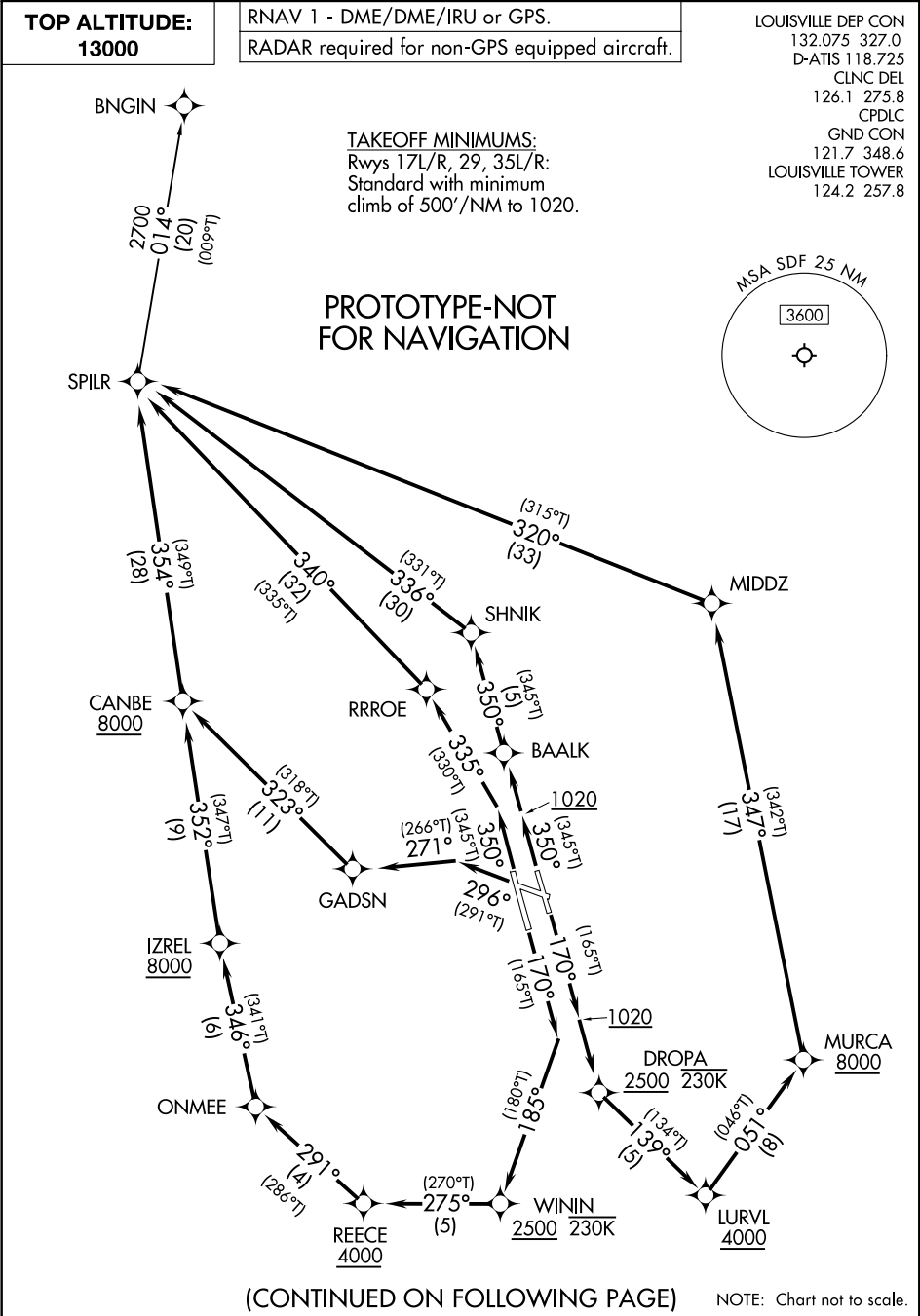
SIM data supports the overall profile and lateral design. Industry indicates that the procedure can be managed without increased energy management actions by the flight crew.

Therefore, ZID is requesting a Letter of Approval to utilize the climb gradient to MURCA (At or above 8,000ft MSL) resulting in a climb gradient of 506.03 ft/NM as developed for the SPILR SID.

Sincerely,

JEFFREY W  
CHESTER

Digitally signed by  
JEFFREY W CHESTER  
Date: 2023.12.15  
10:01:51 -05'00'





DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 17L: Climb heading 170° to 1020, then direct DROPA at or above 2500 and at or below 230K, then on track 139° to cross LURVL at or above 4000, then on track 051° to cross MURCA at or above 8000, then on track 347° to MIDDZ, then on track 320° to SPILR, thence . . . .

TAKEOFF RUNWAY 17R: Climb heading 170° to intercept course 185° to cross WININ at or above 2500 and at or below 230K, then on track 275° to cross REECE at or above 4000, then on track 291° ONMEE, then on track 346° to cross IZREL at or above 8000, then on track 352° to cross CANBE at or above 8000, then on track 354° to SPILR, thence . . . .

TAKEOFF RUNWAY 29: Climb heading 296° to intercept course 271° to GADSN, then on track 323° to cross CANBE at or above 8000, then on track 354° to SPILR, thence . . . .

TAKEOFF RUNWAY 35L: Climb heading 350° to intercept course 335° to RRROE, then on track 340° to SPILR, thence . . . .

TAKEOFF RUNWAY 35R: Climb heading 350° to 1020, then direct BAALK, then on track 350° to SHNIK, then on track 336° to SPILR, thence . . . .

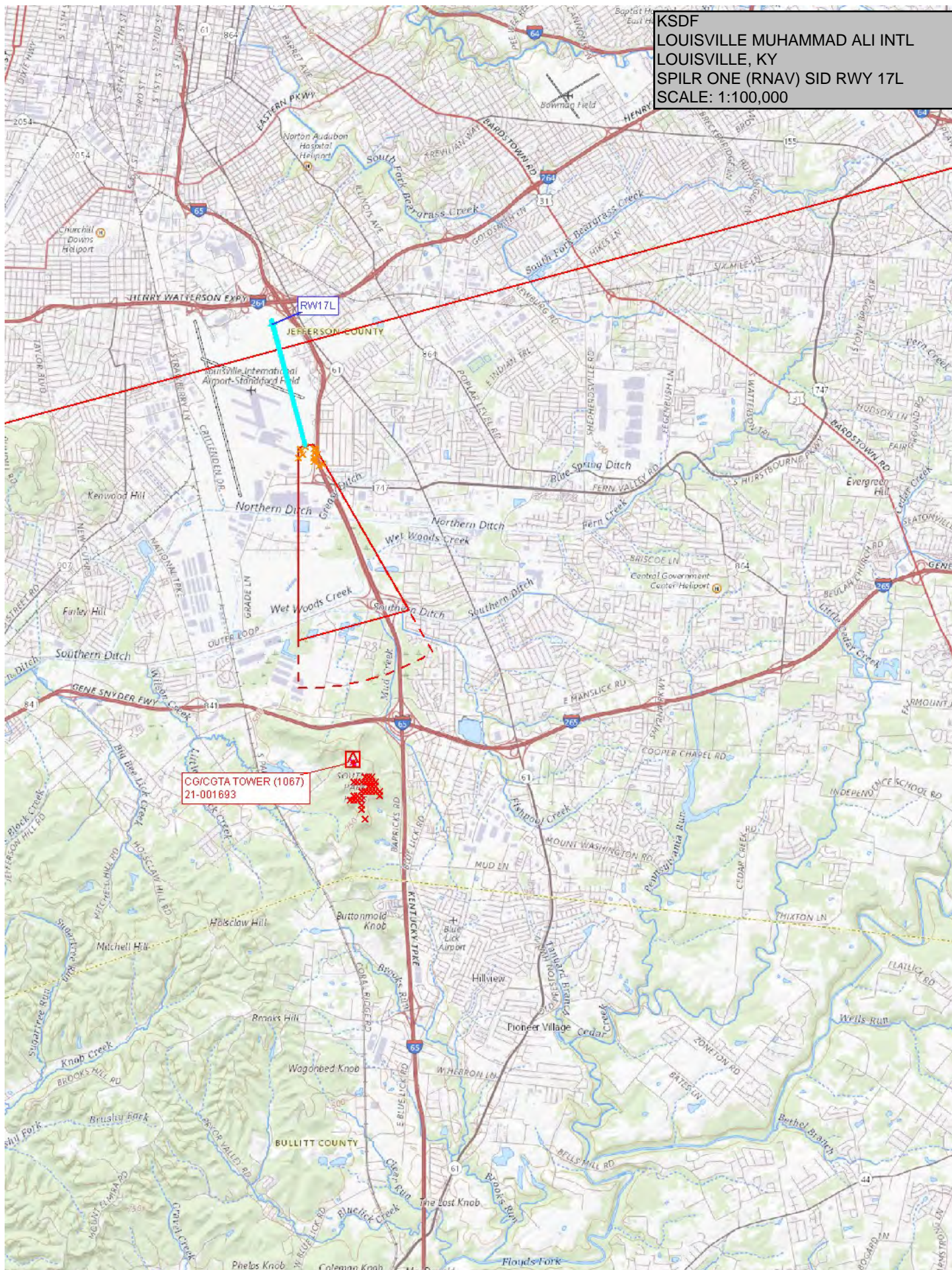
. . . . then on (transition). Maintain 13000.  
Expect file altitude 10 minutes after departure.

BNGIN TRANSITION (SPILR1.BNGIN)

PROTOTYPE-NOT FOR NAVIGATION



KSDF  
LOUISVILLE MUHAMMAD ALI INTL  
LOUISVILLE, KY  
SPILR ONE (RNAV) SID RWY 17L  
SCALE: 1:100,000



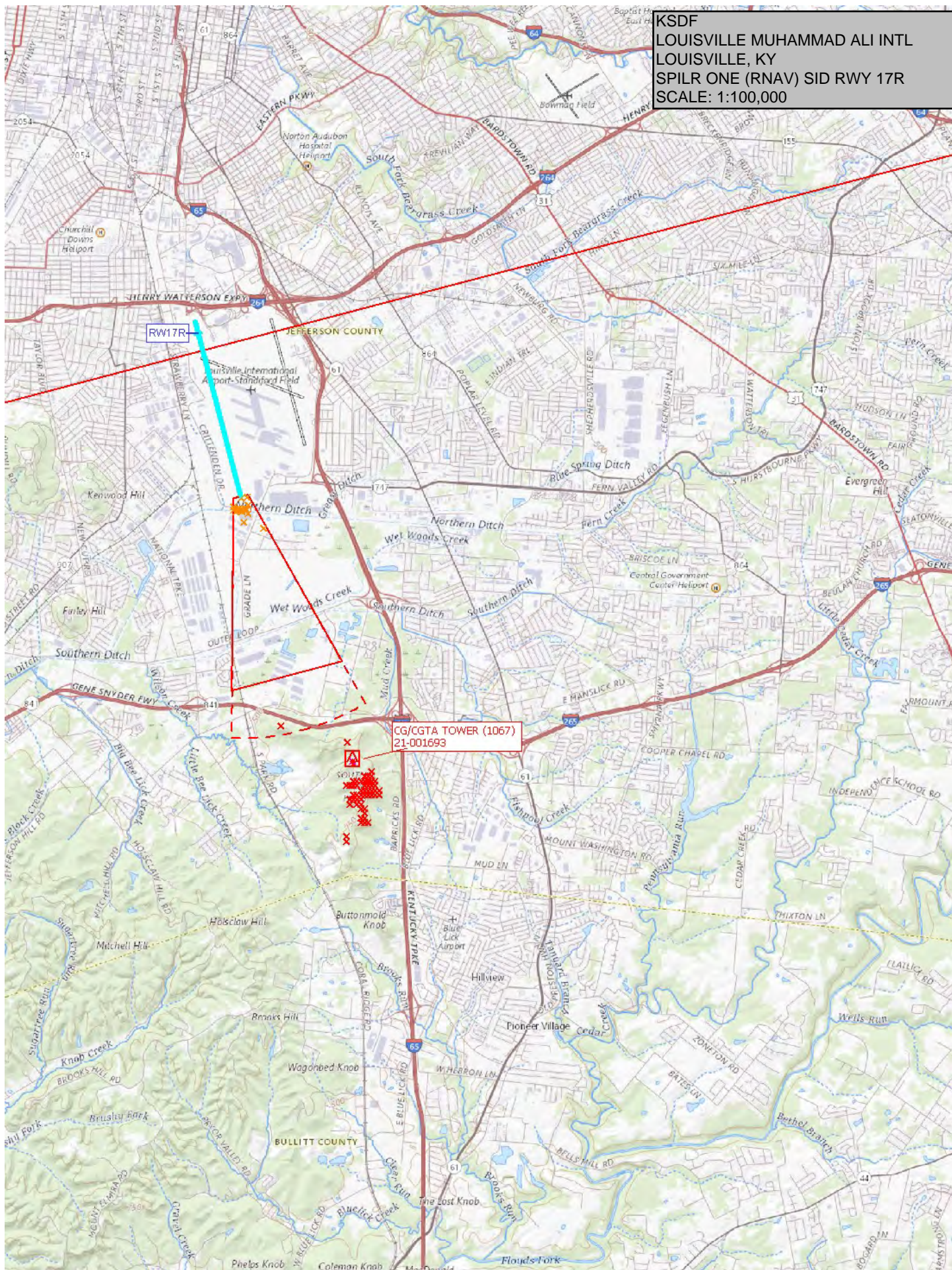


KSDF  
LOUISVILLE MUHAMMAD ALI INTL  
LOUISVILLE, KY  
SPILR ONE (RNAV) SID RWY 17L  
SCALE: 1:500,000





KSDF  
LOUISVILLE MUHAMMAD ALI INTL  
LOUISVILLE, KY  
SPILR ONE (RNAV) SID RWY 17R  
SCALE: 1:100,000

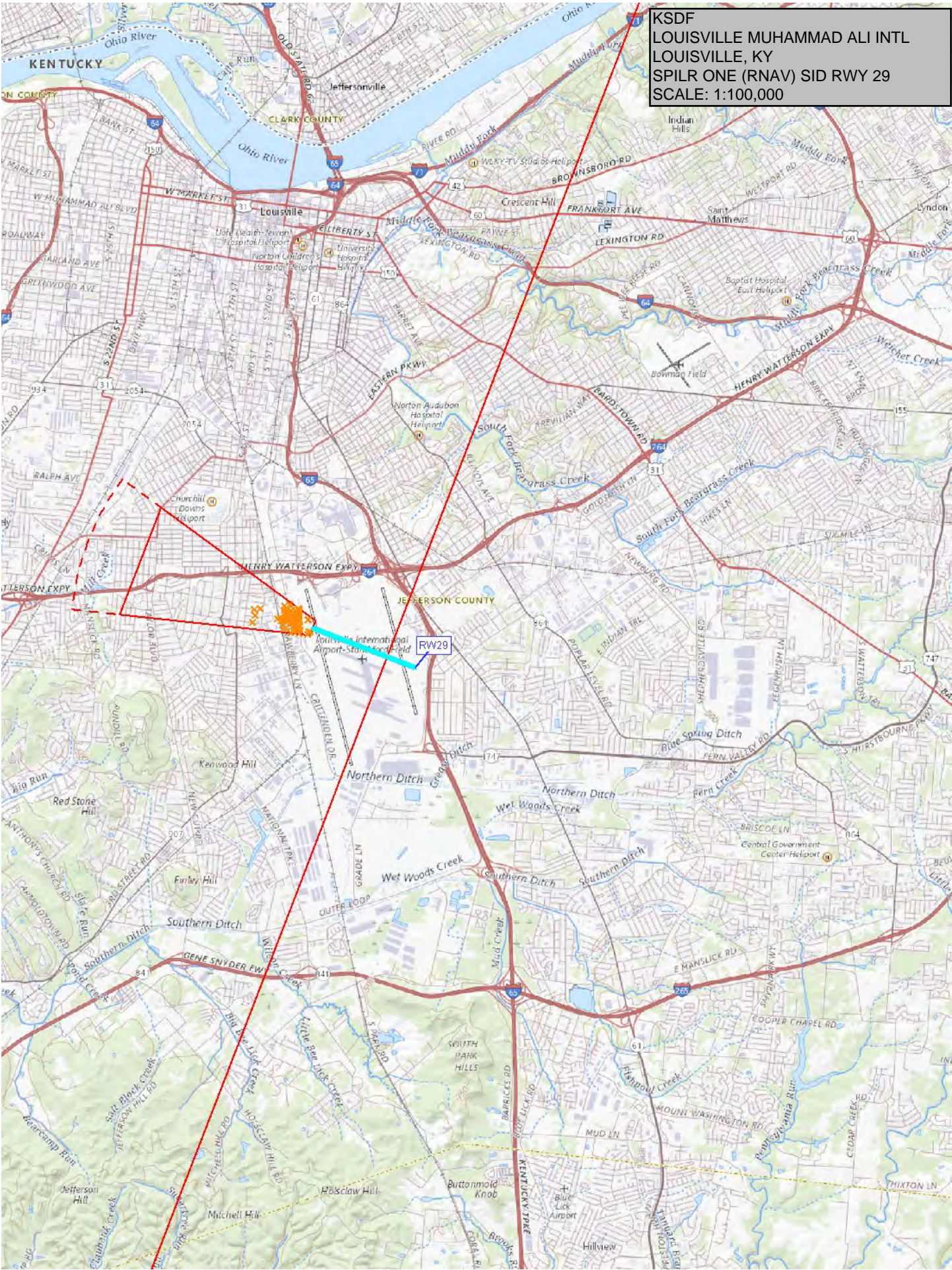




KSDF  
LOUISVILLE MUHAMMAD ALI INTL  
LOUISVILLE, KY  
SPILR ONE (RNAV) SID RWY 17R  
SCALE: 1:500,000



KSDF  
LOUISVILLE MUHAMMAD ALI INTL  
LOUISVILLE, KY  
SPILR ONE (RNAV) SID RWY 29  
SCALE: 1:100,000

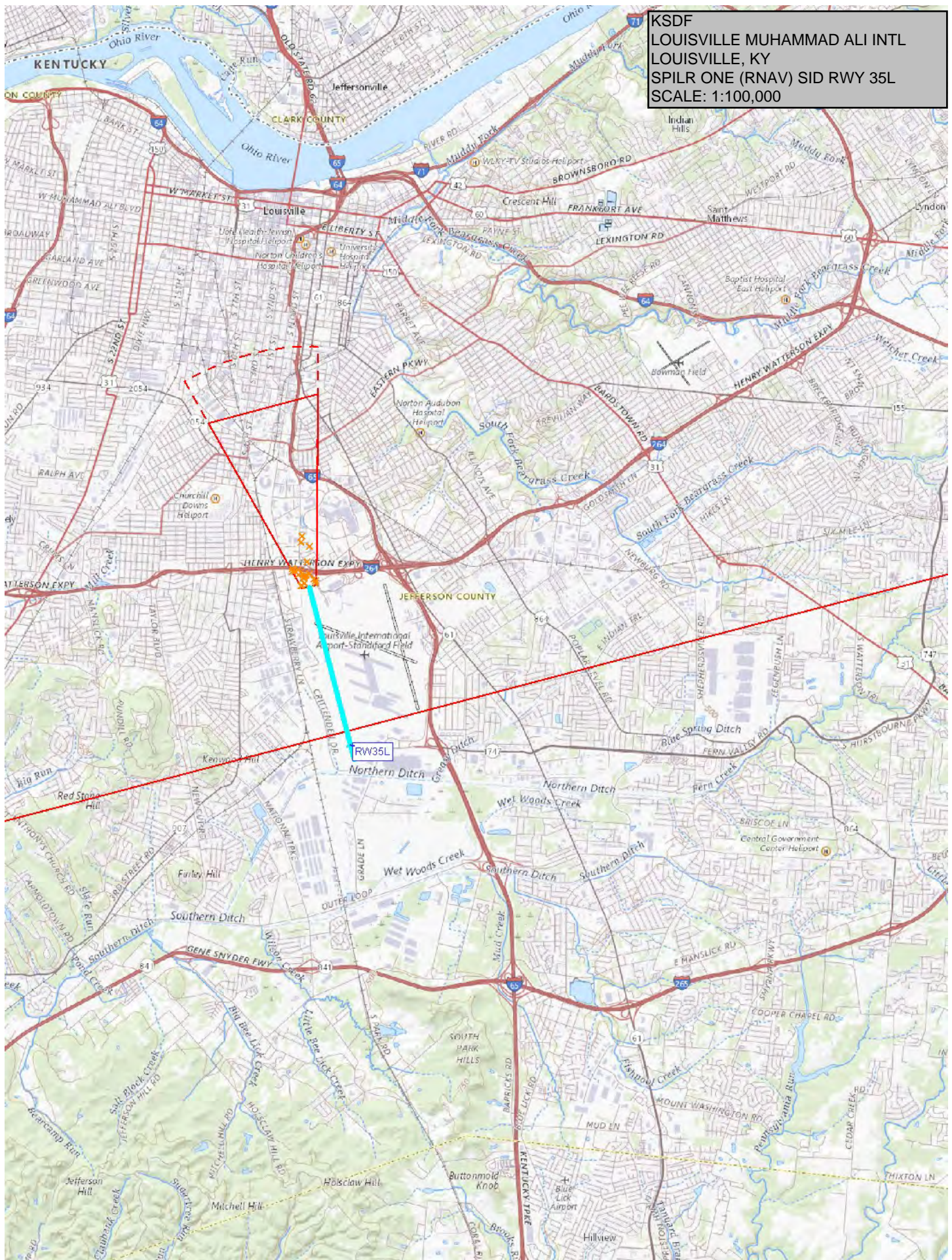




KSDF  
LOUISVILLE MUHAMMAD ALI INTL  
LOUISVILLE, KY  
SPILR ONE (RNAV) SID RWY 29  
SCALE: 1:500,000

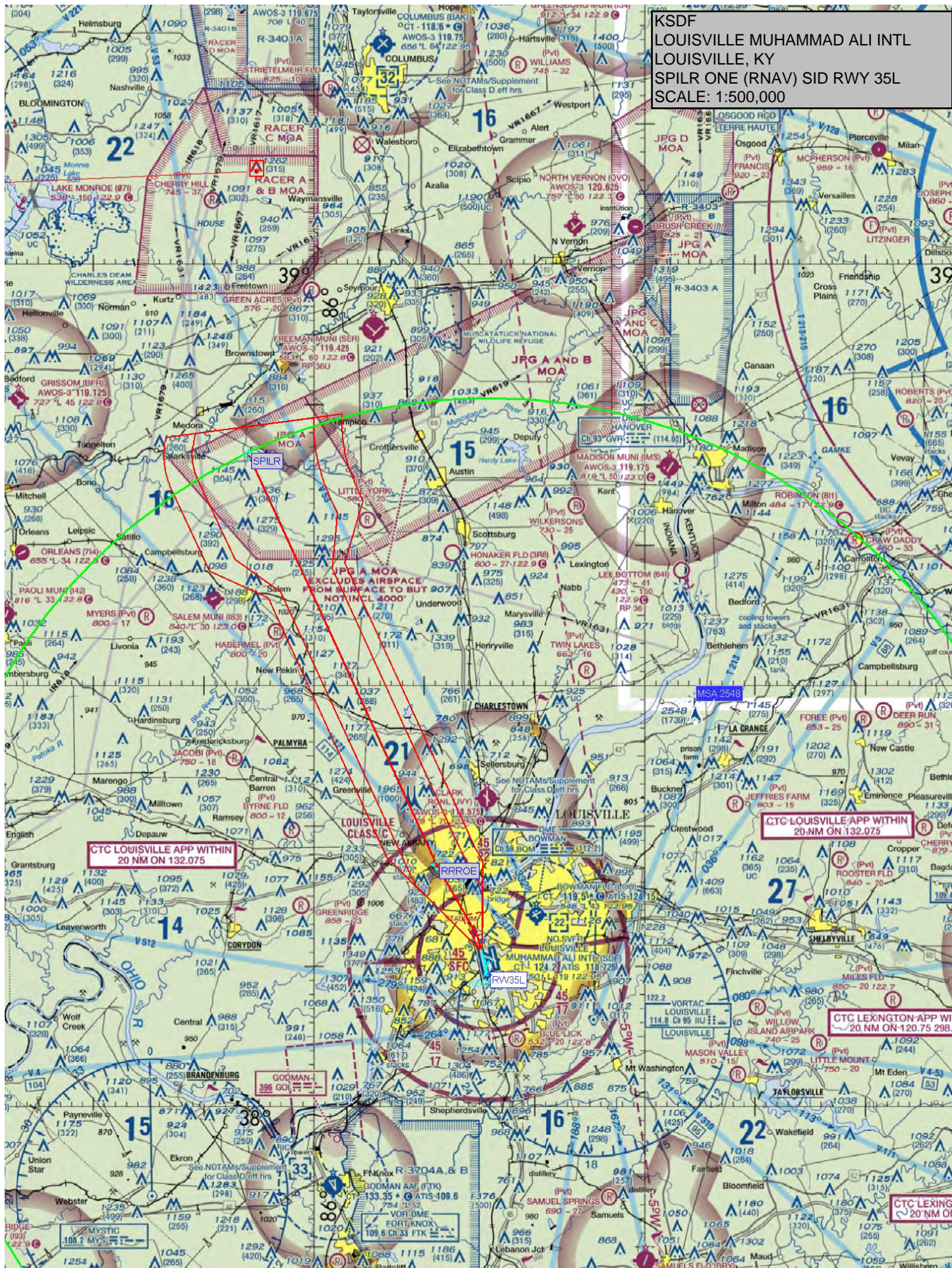


KSDF  
LOUISVILLE MUHAMMAD ALI INTL  
LOUISVILLE, KY  
SPILR ONE (RNAV) SID RWY 35L  
SCALE: 1:100,000



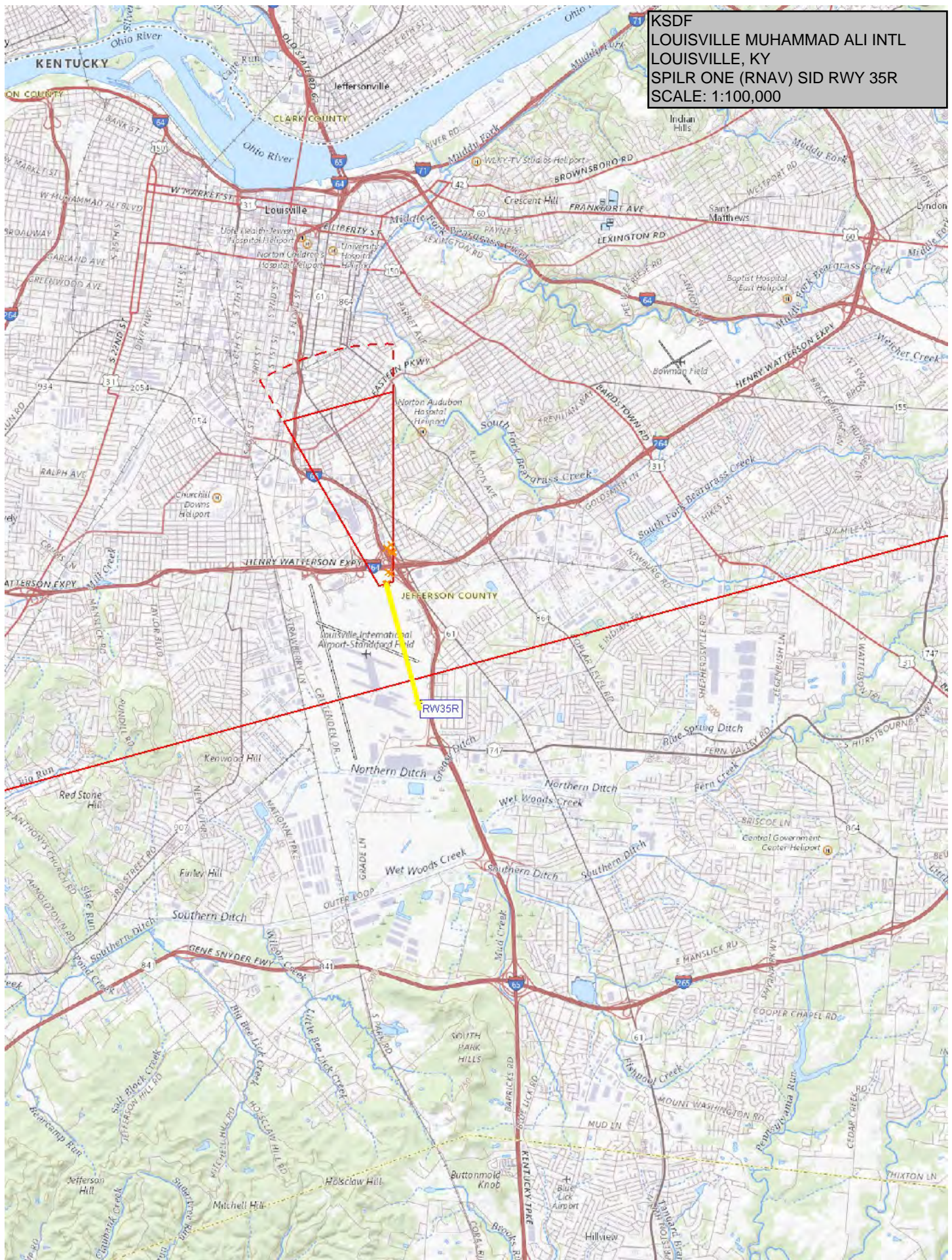


KSDF  
LOUISVILLE MUHAMMAD ALI INTL  
LOUISVILLE, KY  
SPILR ONE (RNAV) SID RWY 35L  
SCALE: 1:500,000





KSDF  
LOUISVILLE MUHAMMAD ALI INTL  
LOUISVILLE, KY  
SPILR ONE (RNAV) SID RWY 35R  
SCALE: 1:100,000





KSDF  
LOUISVILLE MUHAMMAD ALI INTL  
LOUISVILLE, KY  
SPILR ONE (RNAV) SID RWY 35R  
SCALE: 1:500,000



KSDF  
LOUISVILLE MUHAMMAD ALI INTL  
LOUISVILLE, KY  
SPILR ONE (RNAV) SID  
BNGIN EN ROUTE TRANSITION  
SCALE: 1:500,000