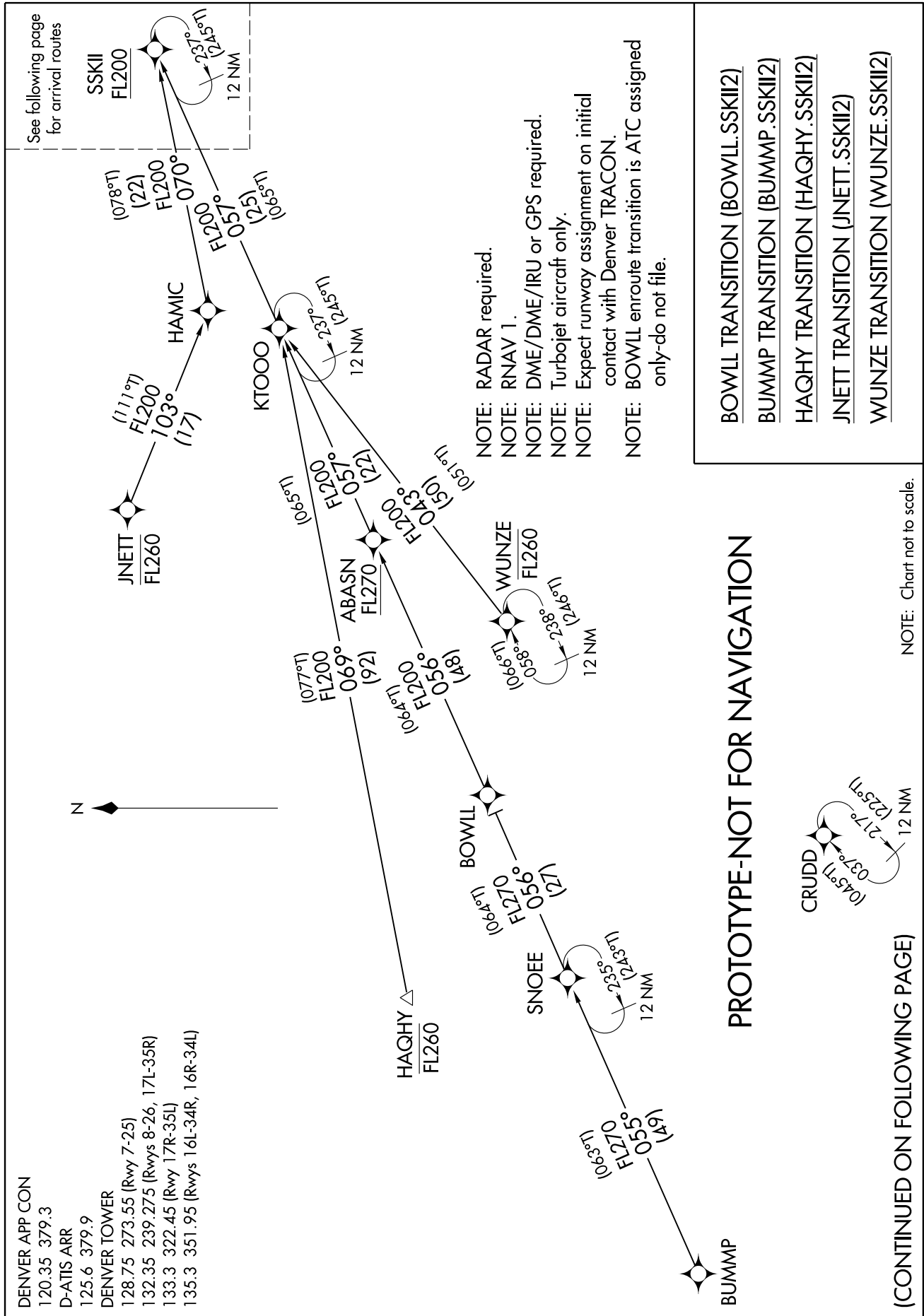


Flight Procedures Cover Page	Task Action: FLIGHT CHECK	Task Type: STAR	Estimated Chart Date: 12/31/2020	APWS Task ID: E0DFDB6386194715AA44D8CE319DCF1F	APWS Project ID: 1E0A505F27344DAEB872B5FB2ED2750F
Procedure: STAR SSKII TWO (RNAV) DENVER CO KDEN		Enroute: YES	Specialist: Powell, Dan		Agreement Number:
Airport ID: KDEN	Airport Name: DENVER INTL		Airport City: DENVER		State: CO
Facility ID:	Facility Type:	Flight Inspection Remark Type: New FC Slot			
<div>Procedure Comments: ABBREV AMDT (TABLE-TOP REQUEST)</div> <div>KDEN METROPLEX; PBN RNAV POST-IMPLEMENTATION</div> <div>CONTACT: DAVE DANNER, AJV-A440 LEAD, 405-954-5077</div> <div>07/30/2020</div> <div>QUALITY 15 CHECKED</div> <div>QUALITY 14 CHECKED</div>					

<b>FIPC DME/DME FORM</b>								
<b>PROCEDURE:</b> STAR SSKII TWO (RNAV) DENVER CO KDEN			<b>AIRPORT NAME:</b> DENVER INTL		<b>AIRPORT ID:</b> KDEN	<b>SPECIAL CONTROL NO:</b> SG-09-134-20		
<b>FAC ID:</b> SSKII2		<b>CITY:</b> DENVER			<b>ST:</b> CO	<b>ORIG CHART DATE:</b> 12/31/2020		
<b>DFL TYPE:</b> PROC/D	<b>THIRD PARTY:</b> <input type="checkbox"/> YES	<b>EST. TIME ON SITE:</b> 1.0	<b>REIMB. NUMBER:</b> AC0683		<b>PTS TASK ID:</b>			
<b>PREFLIGHT NOTES</b>								
<b>REVIEWER:</b>					<b>DATE:</b>			
<b>COMMENTS:</b>					<b>CHECK ONE:</b> <input type="checkbox"/> FLT CK REQ <input type="checkbox"/> NFCR <input type="checkbox"/> REJECT			
							<b>YES</b>	<b>NO</b>
					<b>CPV COMPLETE?</b>			<b>X</b>
<b>PROCEDURE RESULTS</b>								
<b>INSPECTION DATE:</b> 10/07/2020		<b>CREW #:</b> VN888	<b>N #:</b>	<b>INSTRUMENT PROCEDURE STATUS:</b> <input type="checkbox"/> SAT <input type="checkbox"/> SAT W/CHANGES <input checked="" type="checkbox"/> UNSAT		<b>ARINC CODING:</b> <input type="checkbox"/> SAT <input type="checkbox"/> SAT/GOLD <input type="checkbox"/> UNSAT		
<b>FLIGHT INSPECTOR SIGNATURE:</b> elizabeth whaley @ 10/07/2020 10:56			<b>PRINTED NAME:</b> AVN, CREWMEMBER 2			<b>NOTAM INITIATED?</b> <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
<b>FLIGHT INSPECTOR REMARKS:</b> Coordinates for TLRID on FAA Form 8260-17.2 are 393229.01N / 1051130.24W, coordinates on 8260-2 are 393242.40N/1051147.93W. The numbers computed reflect the differences in waypoint. Update coding to correct coordinates resubmit.								
<b>DME/DME STATUS:</b> <input type="checkbox"/> SAT <input type="checkbox"/> UNSAT		<b>SPECIALIST SIGNATURE:</b>			<b>PRINTED NAME:</b>			
<b>SPECIALIST REMARKS:</b>								
<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>	

## SSKII TWO ARRIVAL(RNAV) Transition Routes



NOTE: Chart not to scale.

(CONTINUED ON FOLLOWING PAGE)

# PROTOTYPE-NOT FOR NAVIGATION

NOTE: RADAR required.

NOTE: RNAV 1.

NOTE: DME/DME/IRU or GPS required.

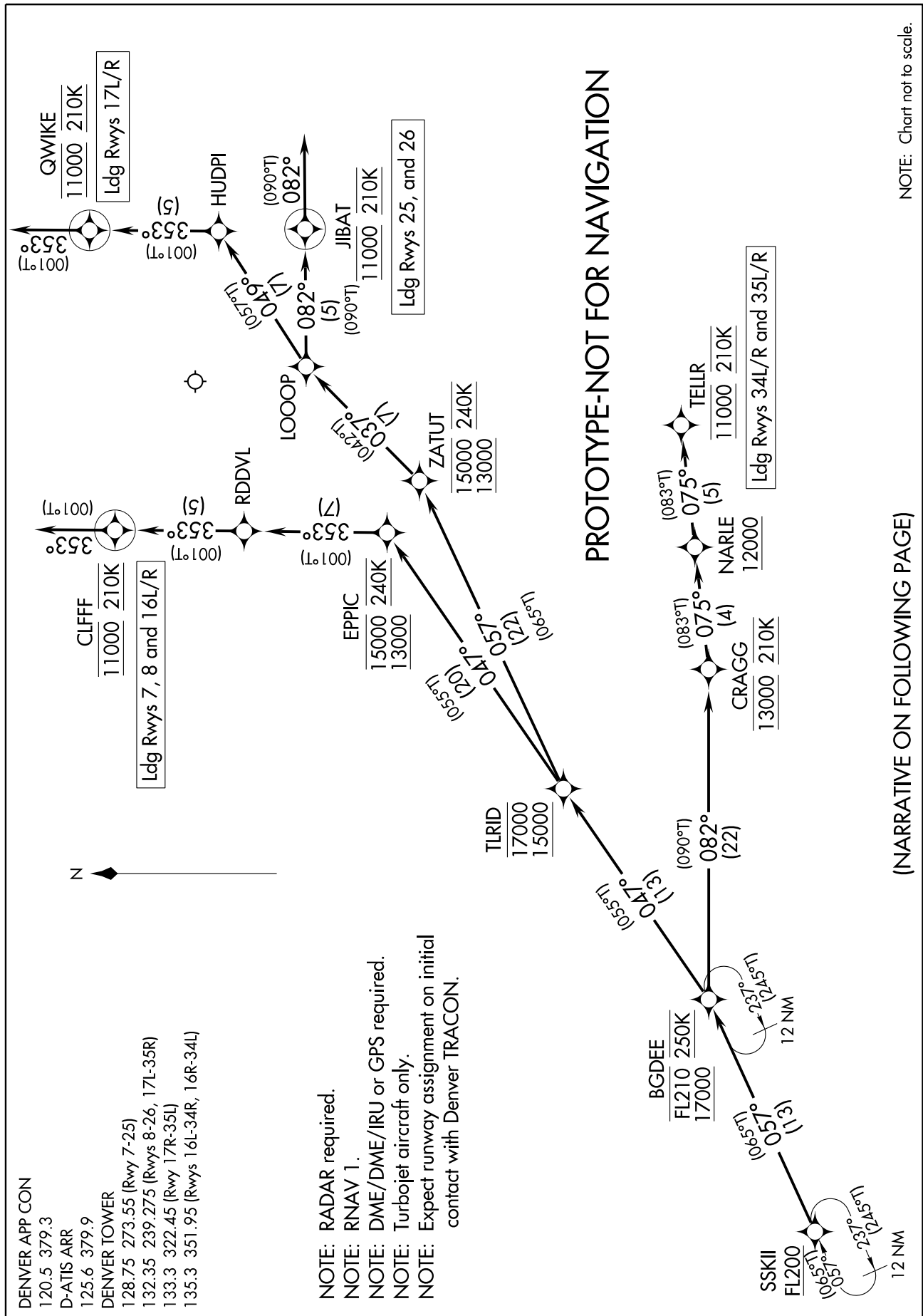
NOTE: Turbojet aircraft only.

NOTE: Expect runway assignment on initial

contact with Denver TRACON.

NOTE: BOWLL enroute transition is ATC assigned only-do not file.

## SSKII TWO ARRIVAL(RNAV) Arrival Routes



## ARRIVAL ROUTE DESCRIPTION

From SSKII on track 057° to cross BGDEE between 17000 and FL210 and at 250K.

LANDING RUNWAYS 7, 8, 16L/R: From BGDEE on track 047° to cross TLRID between 15000 and 17000, then on track 047° to cross EPPIC between 13000 and 15000 and at 240K, then on track 353° to RDDVL, then on track 353° to cross CLFF at 11000 and at 210K, then on track 353°. Expect RADAR vectors to final approach course.

LANDING RUNWAYS 17L/R: From BGDEE on track 047° to cross TLRID between 15000 and 17000, then on track 057° to cross ZATUT between 13000 and 15000 and at 240K, then on track 037° to LOOOP, then on track 049° to HUDPI, then on track 353° to cross QWIKI at 11000 and at 210K, then on track 353°. Expect RADAR vectors to final approach course.

LANDING RUNWAYS 25, 26: From BGDEE on track 047° to cross TLRID between 15000 and 17000, then on track 057° to cross ZATUT between 13000 and 15000 and at 240K, then on track 037° to LOOOP, then on track 082° to cross JIBAT at 11000 and at 210K, then on track 082°. Expect RADAR vectors to final approach course.

LANDING RUNWAYS 34L/R, 35L/R: From BGDEE on track 082° to cross CRAGG at 13000 and at 210K, then on track 075° to cross NARLE at or above 12000, then on track 075° to cross TELLR at 11000 and at 210K. Expect ILS or LOC RWY 34L/R or ILS or LOC RWY 35L/R approach.

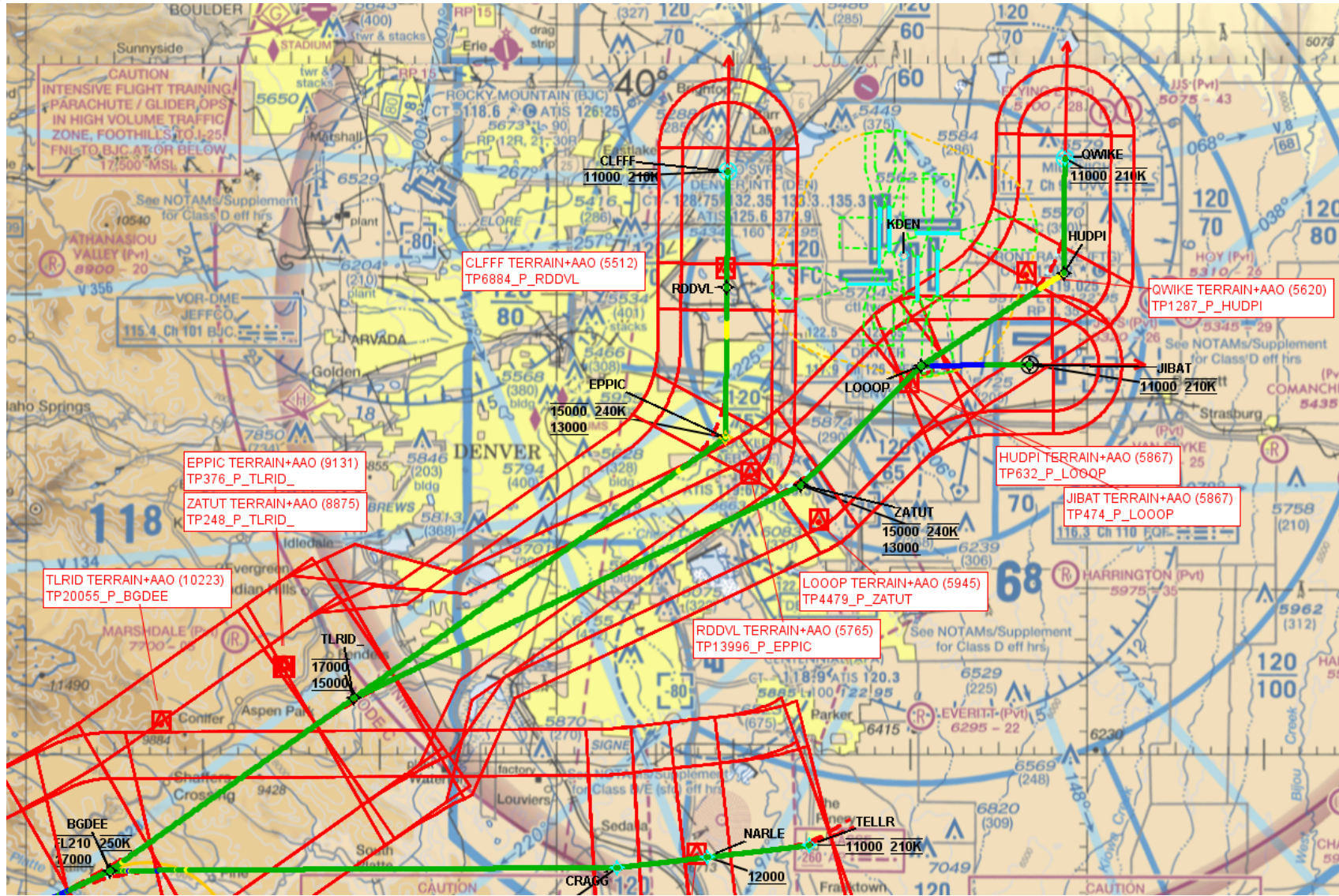
LOST COMMUNICATIONS: In the event of lost communications prior to runway transition assignment, when DEN is landing south, execute the ILS RWY 16R, when DEN is landing north, execute the ILS RWY 34R.

PROTOTYPE-NOT FOR NAVIGATION

FEDERAL AVIATION ADMINISTRATION  
FLIGHT STANDARDS SERVICE  
STANDARD TERMINAL ARRIVAL (STAR)

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL. Altitudes are minimum altitudes unless otherwise indicated. Distances are in nautical miles (NM). Graphic depictions attached.

Arrival Name	Number	STAR Computer Code	Superseded Number	Dated	Effective Date
SSKII (RNAV)	TWO	SSKII.SSKII2	ONE	3/26/2020	
Graphic Depiction 2					

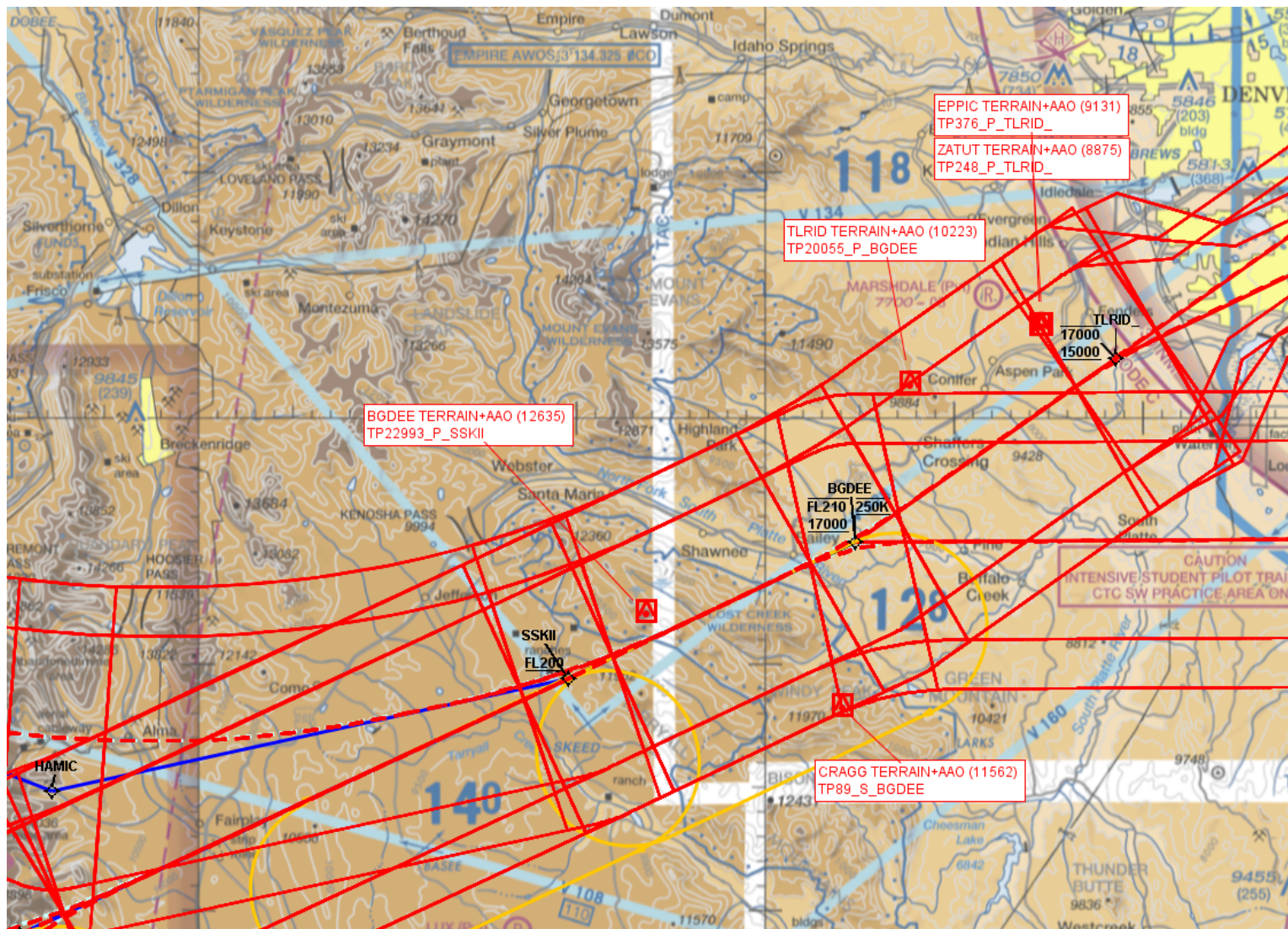




FEDERAL AVIATION ADMINISTRATION  
FLIGHT STANDARDS SERVICE  
STANDARD TERMINAL ARRIVAL (STAR)

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL. Altitudes are minimum altitudes unless otherwise indicated.  
Distances are in nautical miles (NM). Graphic depictions attached.

Arrival Name	Number	STAR Computer Code	Superseded Number	Dated	Effective Date
<b>SSKII (RNAV)</b>	<b>TWO</b>	<b>SSKII.SSKII2</b>	<b>ONE</b>	<b>3/26/2020</b>	
<b>Graphic Depiction 3</b>					



**1. FLIGHT PROCEDURE IDENTIFICATION:**

INFO ONLY

Denver, CO  
Denver International Airport (KDEN)  
SSKII (RNAV) STAR

**2. WAIVER REQUIRED AND APPLICABLE STANDARD:**

FAA Order 8260.58A, paragraph 1-2-5, Table 1-2-2, Indicated Airspeeds (KIAS):

Reflects 250 KIAS is the appropriate airspeed for Category B aircraft AT or ABOVE 10,000 feet.

Note 3 states, 250 KTS AT or ABOVE 10,000 feet MSL except for initial and/or STAR termination fix.

Note 2 states, airspeed restrictions may be established at a charted fix to reduce turn radius, avoid obstacles accommodate ATC request, etc...

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

The SSKII STAR terminus waypoints are JIBAT, TELLR, CLFFF and QWIKI with a crossing restrictions AT 11,000 AT 210 KTS. AT BGDEE waypoint, aircraft transition to either the downwinds when landing south, or the ILS's when landing north. To accommodate landing north or south, BDGEE has a crossing restriction of AT or ABOVE 17,000 AT 250 KTS and AT or BELOW FL210 AT 250KTS. The intermediate waypoints CRAGG, ZATUT and EPPIC were established to allow for airspeed and altitude reductions between BDGEE and the terminus waypoints.

There is an ATC operational requirement for crossing restriction at CRAGG of AT 13,000 AT 210 KTS; At ZATUT block altitudes of AT or ABOVE 13,000 AT 240 KTS and AT or BELOW 15,000 AT 240 KTS; AT EPPIC block altitudes AT or ABOVE 13,000 AT 240 KTS and AT or BELOW 15,000 AT 240 KTS in order for aircraft to meet the succeeding crossing restrictions at JIBAT, TELLR, CLFFF and QWIKI the terminus waypoints AT 11,000 AT 210 KTS. The 210 KTS at JIBAT, TELLR, CLFFF and QWIKI are to ensure aircraft can safely be sequenced at an acceptable and manageable speed. The field elevation at DEN is 5,430 MSL, therefore, aircraft at 11,000 MSL are at approximately 5,500 AGL while transitioning to the instrument approaches.

**4. EQUIVALENT LEVEL OF SAFETY PROVIDED:**

The SSKII STAR was designed with Industry input and has their endorsement based on various aircraft flight simulator results. The SSKII STAR mimics the current TELLR RNAV STAR that has a crossing restriction AT 13,000 AT 210 KTS at CRAGG.

**5. ALTERNATIVE ACTIONS DEEMED NOT FEASIBLE:**

Alternatives were considered, however none were feasible due to the KDEN field elevation. Another factor is the need for slower airspeeds when entering the terminal environment in order for ATC to safely sequence aircraft for KDEN's multiple arrival runway operations. It was determined that CRAGG, ZATUT, and EPPIC are required for speed and altitude reduction between BDGEE and the terminus waypoints, JIBAT, TELLR, CLFFF and QWIKI.

**6. COORDINATION WITH USER ORGANIZATIONS (SPECIFY):**

United Airlines, Delta Airlines, Frontier Airlines, American Airlines, Southwest Airlines  
Denver ARTCC  
Denver Approach  
Denver Metroplex D&I  
WSC OSG

**7. SUBMITTED BY:**

DATE	OFFICE IDENTIFICATION	TITLE
11/04/19	AJV-143	John Connolly Manager Denver Metroplex

**SIGNATURE**

John  
Connolly

Digitally signed by  
John Connolly  
Date: 2019.11.04  
08:39:15 -07'00'

**8. AFS ACTIONS:**

☐ APPROVED ☐ DISAPPROVED ☐ NOT REQUIRED



COMMENTS:

DATE	ROUTING SYMBOL	SIGNATURE
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# Federal Aviation Administration

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## Memorandum

Date: July 29, 2019

To: Danny Hamilton, Manager, Flight Procedures & Airspace Group (AFS-420)

THRU: Stephanie Harris, Manager, Flight Procedures Team, FAA, ATO  
Western Service Center, Operations Support Group, AJV-W24

From: John Connolly & Mark Ostronic, WSC-OSG PBN Co-Leads

Subject: Approval Request: Denver International Airport, Denver, CO (KDEN),  
SSKII Standard Terminal Arrival (STAR)

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Requesting approval for a leg length of 13.00 Nautical Miles (NM) from SSKII waypoint to BGDEE waypoint.

The requirement in Order 8260.3D, paragraph 2-2-10 states:

“Sufficient distance and a reduced descent gradient are required prior to any fix with a speed restriction.”

Paragraph 2-2-10. b. (2) states:

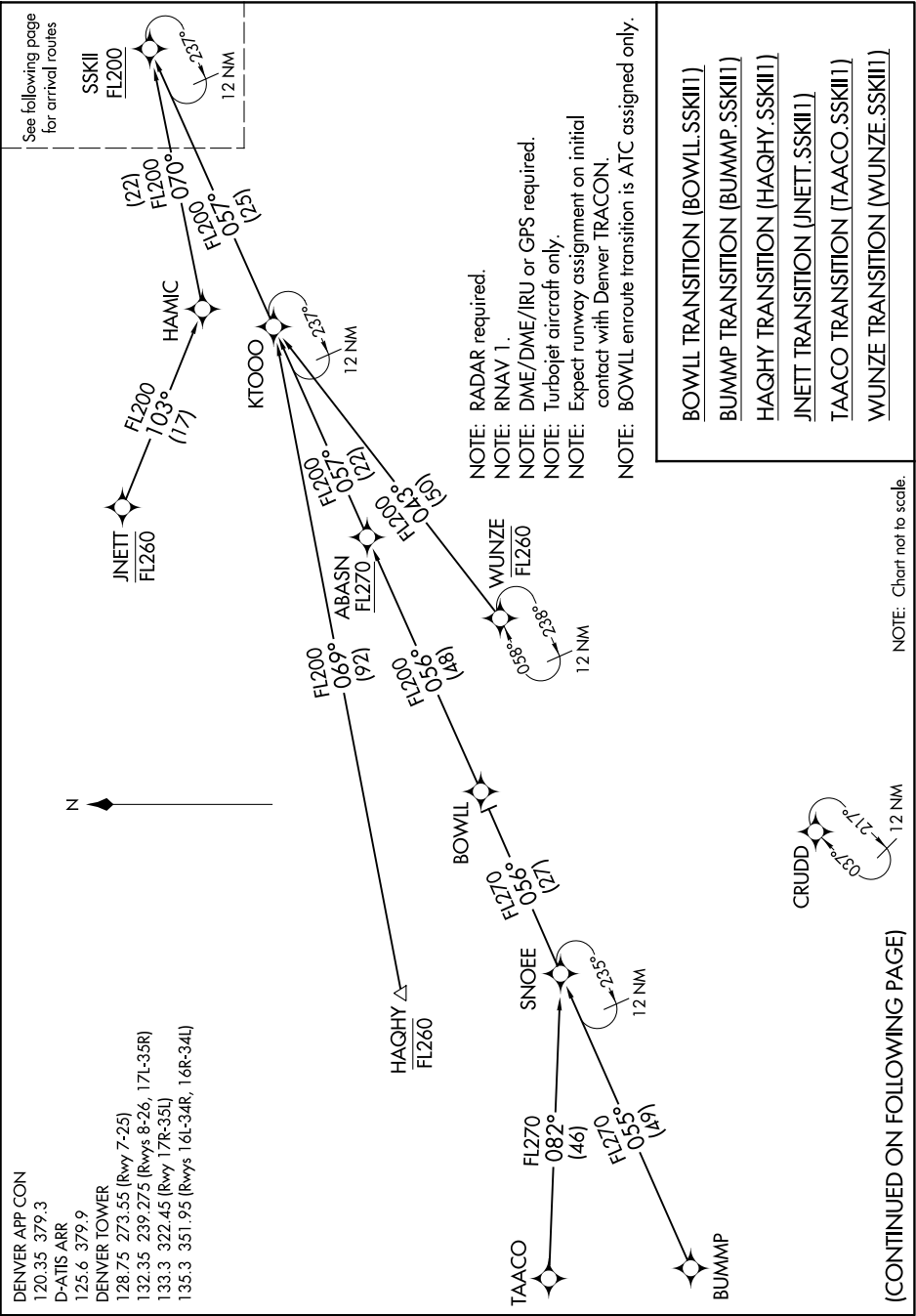
“... use 310 KIAS, or the previous speed restriction if less than 310 KIAS, as the reference speed at or above 10000 feet MSL.”

When *Formula 2-2-2. Minimum Deceleration Distance (NM)* is applied; the required distance equals 15.09 NM from SSKII waypoint to BGDEE waypoint. However, the mileage on the following enroute transitions are ample for deceleration from 310 KIAS to 250 KIAS at BGDEE waypoint; FACCE, 51.16 NM, HAQHY, 129.31 NM, TAACO, 179.39 NM, BUMMP, 182.95 NM and WUNZE 87.14 NM.

There is an operational need to have the SSKII STAR operate between the altitudes and speeds as designed into the procedure.

SSKII ONE ARRIVAL (RNAV) Transition Routes

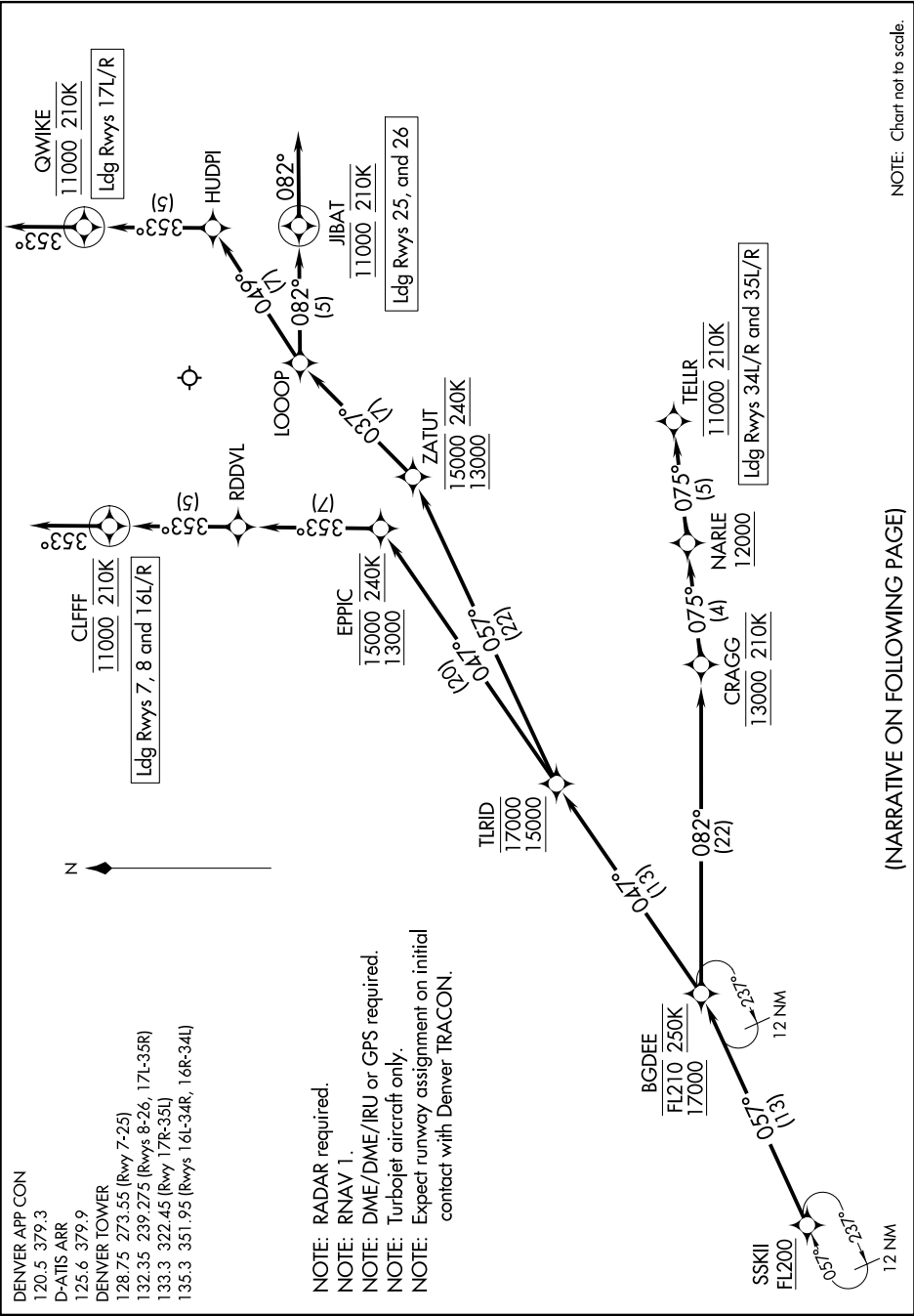
SW-1, 16 JUL 2020 to 13 AUG 2020



SSKII ONE ARRIVAL (RNAV) Transition Routes

SW-1, 16 JUL 2020 to 13 AUG 2020

SW-1, 16 JUL 2020 to 13 AUG 2020



NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

SW-1, 16 JUL 2020 to 13 AUG 2020



ARRIVAL ROUTE DESCRIPTION

From SSKII on track 057° to cross BGDEE between 17000 and FL210 and at 250K.

LANDING RUNWAYS 7, 8, 16L/R: From BGDEE on track 047° to cross TLRID between 15000 and 17000, then on track 047° to cross EPPIC between 13000 and 15000 and at 240K, then on track 353° to RDDVL, then on track 353° to cross CLFFF at 11000 and at 210K, then on track 353°. Expect RADAR vectors to final approach course.

LANDING RUNWAYS 17L/R: From BGDEE on track 047° to cross TLRID between 15000 and 17000, then on track 057° to cross ZATUT between 13000 and 15000 and at 240K, then on track 037° to LOOOP, then on track 049° to HUDPI, then on track 353° to cross QWIKE at 11000 and at 210K, then on track 353°. Expect RADAR vectors to final approach course.

LANDING RUNWAYS 25, 26: From BGDEE on track 047° to cross TLRID between 15000 and 17000, then on track 057° to cross ZATUT between 13000 and 15000 and at 240K, then on track 037° to LOOOP, then on track 082° to cross JIBAT at 11000 and at 210K, then on track 082°. Expect RADAR vectors to final approach course.

LANDING RUNWAYS 34L/R, 35L/R: From BGDEE on track 082° to cross CRAGG at 13000 and at 210K, then on track 075° to cross NARLE at or above 12000, then on track 075° to cross TELLR at 11000 and at 210K. Expect ILS or LOC RWY 34L/R or ILS or LOC RWY 35L/R approach.

LOST COMMUNICATIONS: In the event of lost communications prior to runway transition assignment, when DEN is landing south, execute the ILS RWY 16R, when DEN is landing north, execute the ILS RWY 34R.