

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Arrival Name BRWNZ (RNAV)	Number THREE	STAR Computer Code BRWNZ.BRWNZ3	Superseded Number TWO	Dated 10/10/2019	Effective Date				
TRANSITION ROUTES:									
Transition Name	Transition Computer Codes	From FIX/NAVAID	To FIX/NAVAID	Course	Distance	MEA	MOCA	MAA	Crossing Altitudes / Fixes
BENJO	BENJO.BRWNZ3	BENJO	BENJO						
			COWCH	092.54	41.68	15000	2600		
			FRYYE	092.85	42.49	15000	2600		AT/ABOVE FL240
			MCKOY	103.69	10.25	10000	2100		AT/ABOVE FL210
			WEEDN	103.93	07.81	10000	2100		AT/ABOVE FL190
			RDZON	104.08	07.01	10000	2200		AT/ABOVE 17000
			WINNZ	112.78	09.47	10000	1900		AT/ABOVE 14000
			GOLIC	112.79	07.28	8000	1800		
			BRWNZ	112.76	09.48	8000	1800		BETWEEN 11000 AND 14000
DETMR	DETMR.BRWNZ3	DETMR	DETMR						
			CHUUB	102.27	30.84	15000	2600		
			FRYYE	102.73	48.00	15000	2600		AT/ABOVE FL240
			MCKOY	103.69	10.25	10000	2100		AT/ABOVE FL210
			WEEDN	103.93	07.81	10000	2100		AT/ABOVE FL190
			RDZON	104.08	07.01	10000	2200		AT/ABOVE 17000
			WINNZ	112.78	09.47	10000	1900		AT/ABOVE 14000
			GOLIC	112.79	07.28	8000	1800		
			BRWNZ	112.76	09.48	8000	1800		BETWEEN 11000 AND 14000
DOZRR	DOZRR.BRWNZ3	DOZRR	DOZRR						AT/ABOVE 11000
			BRWNZ	194.72	10.00	8000	1800		BETWEEN 11000 AND 14000
HASTE	HASTE.BRWNZ3	HASTE	HASTE						
			MNZEL	120.25	19.92	15000	3000		
			KWYNN	124.60	52.60	15000	3000		
			FRYYE	125.23	18.18	15000	2200		AT/ABOVE FL240
			MCKOY	103.69	10.25	10000	2100		AT/ABOVE FL210
			WEEDN	103.93	07.81	10000	2100		AT/ABOVE FL190
			RDZON	104.08	07.01	10000	2200		AT/ABOVE 17000

QUALITY

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Arrival Name		Number		STAR Computer Code		Superseded Number			Dated	Effective Date
BRWNZ (RNAV)		THREE		BRWNZ.BRWNZ3		TWO			10/10/2019	
Transition Name	Transition Computer Codes	From FIX/NAVAID	To FIX/NAVAID	Course	Distance	MEA	MOCA	MAA	Crossing Altitudes / Fixes	
			WINNZ	112.78	09.47	10000	1900		AT/ABOVE 14000	
			GOLIC	112.79	07.28	8000	1800			
			BRWNZ	112.76	09.48	8000	1800		BETWEEN 11000 AND 14000	
OLYEE	OLYEE.BRWNZ3	OLYEE	OLYEE							
			SCHAM	112.51	19.43	15000	3000			
			HAVEN	112.74	37.33	15000	3000			
			KWYNN	141.90	34.01	15000	3000			
			FRYYE	125.23	18.18	15000	2200		AT/ABOVE FL240	
			MCKOY	103.69	10.25	10000	2100		AT/ABOVE FL210	
			WEEDN	103.93	07.81	10000	2100		AT/ABOVE FL190	
			RDZON	104.08	07.01	10000	2200		AT/ABOVE 17000	
			WINNZ	112.78	09.47	10000	1900		AT/ABOVE 14000	
			GOLIC	112.79	07.28	8000	1800			
			BRWNZ	112.76	09.48	8000	1800		BETWEEN 11000 AND 14000	
WINNZ	WINNZ.BRWNZ3	WINNZ	WINNZ						AT/ABOVE 14000	
			GOLIC	112.79	07.28	8000	1800			
			BRWNZ	112.76	09.48	8000	1800		BETWEEN 11000 AND 14000	

ARRIVAL ROUTE DESCRIPTION:

LANDING KCLE RWY 6L/R: FROM BRWNZ ON TRACK 179.57/16.28 TO CROSS MAAAK AT OR ABOVE 7000, THEN ON TRACK 181.30/3.15 TO CROSS KLLAY BETWEEN 6000 AND 7000, THEN ON TRACK 181.53/5.81 TO CROSS JIIMM BETWEEN 5000 AND 6000, THEN ON TRACK 182.24/4.01 TO CROSS HICKR AT 5000 AND AT 210 KIAS, THEN ON HEADING 241.00 OR AS ASSIGNED BY ATC. EXPECT ILS, RNAV(RNP), OR RNAV(GPS) APPROACH FROM HICKR, OR RADAR VECTORS TO FINAL APPROACH COURSE.

LANDING KCLE RWY 24L/R: FROM BRWNZ ON TRACK 129.36/15.58 TO CROSS TRRKY AT OR ABOVE 7000, THEN ON TRACK 130.46/3.15 TO CROSS QUUBE BETWEEN 6000 AND 7000, THEN ON TRACK 129.74/3.16 TO CROSS DEEKN BETWEEN 5000 AND 6000, THEN ON TRACK 130.30/4.01 TO CROSS LLROY AT 5000 AND AT 210 KIAS, THEN ON HEADING 056.00 OR AS ASSIGNED BY ATC. EXPECT ILS, RNAV(RNP), OR RNAV(GPS) APPROACH FROM LLROY, OR RADAR VECTORS TO FINAL APPROACH COURSE.

LANDING KCLE RWY 28: FROM BRWNZ ON TRACK 129.36/15.58 TO CROSS TRRKY AT OR ABOVE 7000, THEN ON TRACK 148.51/4.38 TO CROSS DYXON AT 7000, THEN ON TRACK 145.46/12.64 TO CROSS OZZYY AT 7000 AND AT 210 KIAS, THEN ON HEADING 101.00 OR AS ASSIGNED BY ATC. EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

LANDING 1G3/KAKR: FROM BRWNZ ON TRACK 151.07/50.70 TO CROSS USASN AT 11000, THEN ON TRACK 100.00. EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

LANDING KLPR/KLNN/KCGF/KBKL: FROM BRWNZ ON TRACK 104.72/16.56 TO SLOTR, THEN ON TRACK 104.59/9.81 TO CROSS SIPE AT 7000, THEN ON TRACK 104.59. EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

LANDING KCAK: FROM BRWNZ ON TRACK 151.07/50.70 TO CROSS USASN AT 11000, THEN ON TRACK 120.00. EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

PROCEDURAL DATA NOTES:

NOTE: RADAR REQUIRED

NOTE: RNAV 1

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BRWNZ (RNAV)	THREE	BRWNZ.BRWNZ3	TWO	10/10/2019	

NOTE: DME/DME/IRU OR GPS REQUIRED

NOTE: JET AIRCRAFT EXPECT "DESCEND VIA" CLEARANCE FROM CLEVELAND CENTER.

NOTE: KCLE LANDING SOUTH: USE RWY 24R TRANSITION, EXPECT RUNWAY ASSIGNMENT FROM CLEVELAND APP CON NO LATER THAN 10 NM FROM BRWNZ.

NOTE: KCLE LANDING NORTH: USE RWY 6L TRANSITION, EXPECT RUNWAY ASSIGNMENT FROM CLEVELAND APP CON NO LATER THAN 10 NM FROM BRWNZ.

NOTE: OLYEE TRANSITION: DO NOT FILE - TO BE ASSIGNED BY ATC.

NOTE: DOZRR TRANSITION: EXCEPT FOR FLIGHTS ORIGINATING IN CANADA, DO NOT FILE - TO BE ASSIGNED BY ATC.

NOTE: BENJO TRANSITION: FOR USE BY TURBOJET AIRCRAFT ONLY.

NOTE: WINNZ TRANSITION: FOR DETROIT METROPOLITAN AREA DEPARTURES ONLY.

FIXES AND/OR HOLDING PATTERNS:

CHART HOLDING AT BRWNZ: W, LT, 112.76 INBOUND, 10 NM LEGS.

CHART HOLDING AT DETMR: W, LT, 102.27 INBOUND, 10 NM LEGS.

CHART HOLDING AT FRYYE: W, LT, 103.69 INBOUND, 10 NM LEGS.

COMMUNICATIONS:

CLEVELAND APP CON, CLE ATIS, BKL ATIS, CAK ATIS

AIRPORTS SERVED:

CLEVELAND-HOPKINS INTL, CLEVELAND, OH (KCLE)

AKRON FULTON INTL, AKRON, OH (KAKR)

AKRON-CANTON RGNL, AKRON, OH (KCAK)

BURKE LAKEFRONT, CLEVELAND, OH (KBKL)

CUYAHOGA COUNTY, CLEVELAND, OH (KCGF)

KENT STATE UNIV, KENT, OH (1G3)

LORAIN COUNTY RGNL, LORAIN/ELYRIA, OH (KLPR)

LAKE COUNTY EXECUTIVE, WILLOUGHBY, OH (KLNN)

LOST COMMUNICATIONS PROCEDURE:

REMARKS:

15000 FT MEA'S REMOVE CRITICAL DME'S.

AMENDMENT DOES NOT SATISFY PERIODIC REVIEW REQUIREMENTS

ADDITIONAL FLIGHT DATA:

DME/DME ASSESSMENT: SAT (RNP 2.0)

REFERENCE MAGNETIC VARIATION = KCLE 08W/2020

CHART AT USASN TERMINUS: LDG KCAK, K1G3, KAKR

CHART AT SIIPE TERMINUS: LDG KBKL, KCGF, KLNN, KLPR

CHART AT HICKR TERMINUS: KCLE LDG RWY 6L/R

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Arrival Name	Number	STAR Computer Code	Superseded Number	Dated	Effective Date
BRWNZ (RNAV)	THREE	BRWNZ.BRWNZ3	TWO	10/10/2019	
CHART AT LLROY TERMINUS: KCLE LDG RWY 24L/R					
CHART AT OZZYY TERMINUS: KCLE LDG RWY 28					
DO NOT CHART MOCAS.					
				<i>Digitally signed by</i>	
<u>FLIGHT INSPECTED BY:</u>				JACOB POWERS	
FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-333) MEMO, OCT 3, 2018				Nov 21, 2019	
Name		Organization	Date	Signature	
<u>DEVELOPED BY:</u>					
JOSEPH ZEDER		AJV_A442	11/05/2019		
Name		Organization	Date	Signature	
<u>APPROVED BY:</u>				<i>Digitally signed by</i>	
PAT MULQUEEN				JACOB POWERS	
				Nov 21, 2019	
Name		Organization	Date	Signature	

CHANGES:

1. CHANGED WILLOUGHBY LOST NATION MUNI TO LAKE COUNTY EXCUTIVE.

REASONS:

1. AIRPORT NAME CHANGE

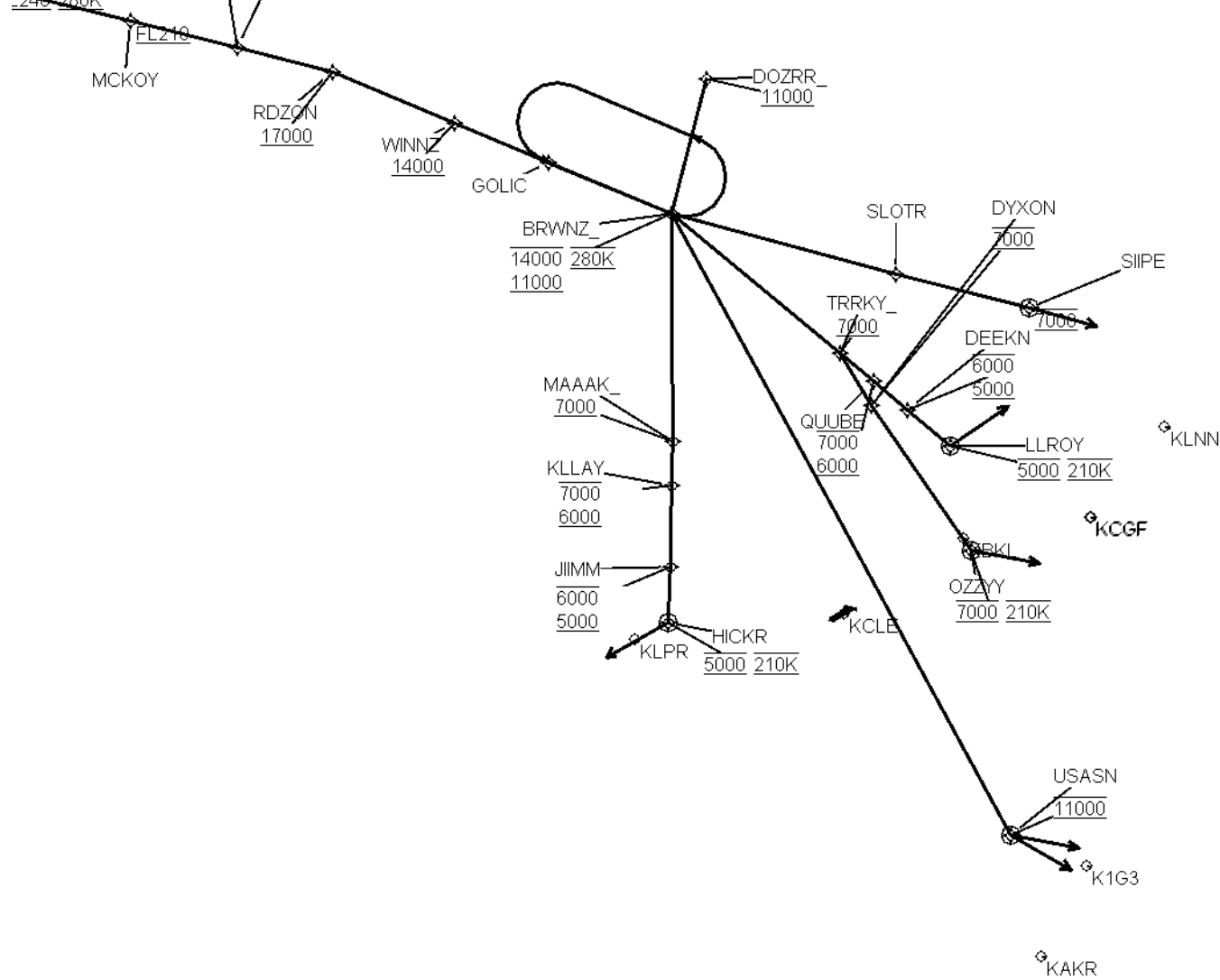


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BRWNZ (RNAV)	THREE	BRWNZ.BRWNZ3	TWO	10/10/2019	

Graphic Depiction 1

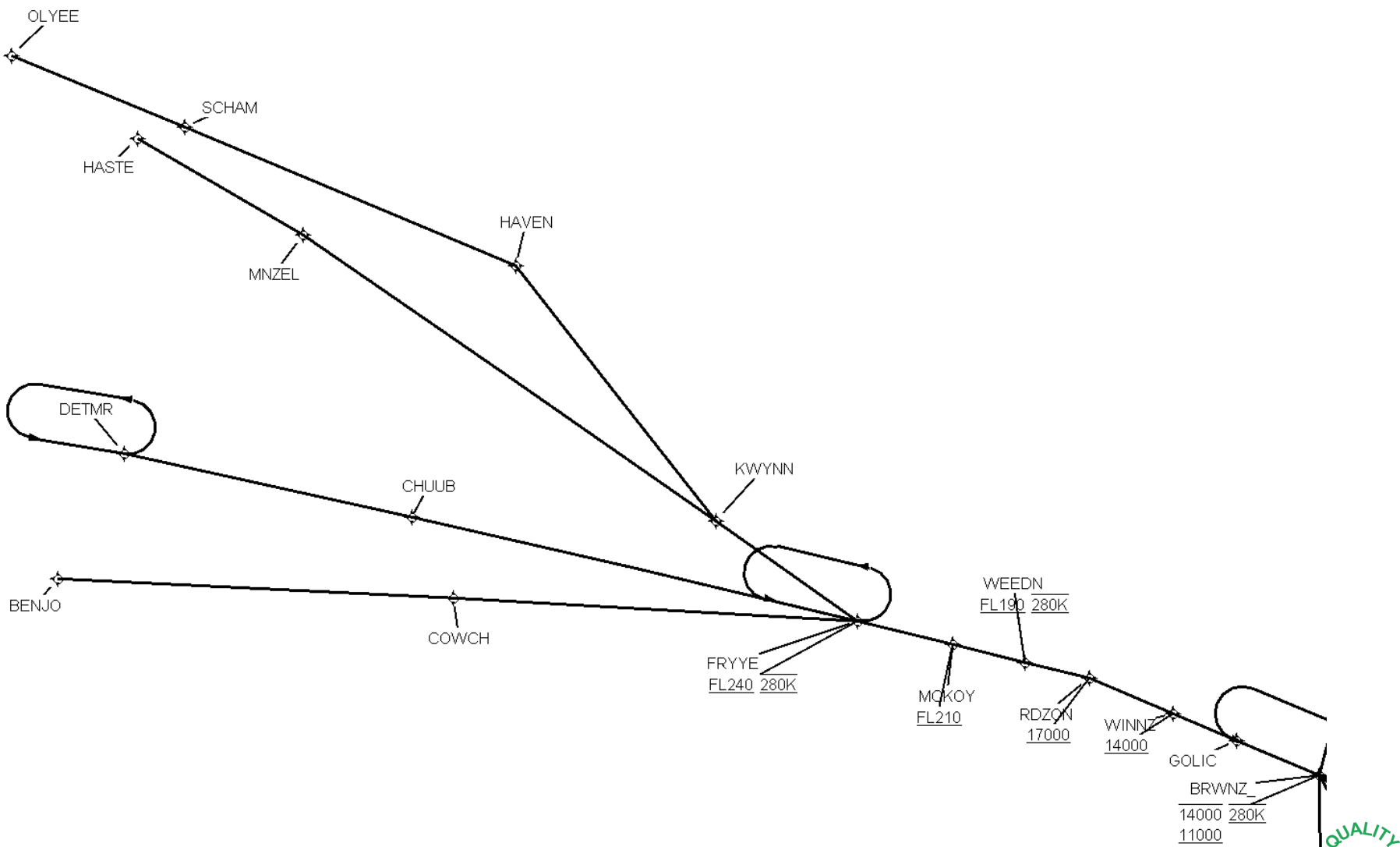


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Distances are in nautical miles (NM). Graphic depictions attached.

Arrival Name	Number	STAR Computer Code	Superseded Number	Dated	Effective Date
BRWNZ (RNAV)	THREE	BRWNZ.BRWNZ3	TWO	10/10/2019	

Graphic Depiction 2



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STAR (DATA RECORD)

Arrival Name BRWNZ (RNAV)		Number THREE		STAR Computer Code BRWNZ.BRWNZ3			Superseded Number TWO		Dated 10/10/2019		Effective Date
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS		
En Route Transition											
BENJO	415308.45N / 0851233.15W	Y		IF					BENJO.BRWNZ3		
COWCH	415653.14N / 0841657.02W	Y	FB	TF	084.54	41.68					
FRYYE	420027.89N / 0832011.22W	Y	FB	TF	084.85	42.49	AT/ABOVE FL240	AT 280K			
MCKOY	415926.14N / 0830630.86W	Y	FB	TF	095.69	10.25	AT/ABOVE FL210				
WEEDN	415837.27N / 0825605.98W	Y	FB	TF	095.93	07.81	AT/ABOVE FL190	AT 280K			
RDZON	415752.34N / 0824645.45W	Y	FB	TF	096.08	07.01	AT/ABOVE 17000				
WINNZ	415526.66N / 0823429.63W	Y	FB	TF	104.78	09.47	AT/ABOVE 14000				
GOLIC	415334.65N / 0822503.86W	Y	FB	TF	104.79	07.28					
BRWNZ	415109.02N / 0821247.85W	Y	FB	TF	104.76	09.48	11000B14000	AT 280K			
En Route Transition											
DETMR	420708.54N / 0850538.99W	Y		IF					DETMR.BRWNZ3		
CHUUB	420443.37N / 0842421.31W	Y	FB	TF	094.27	30.84					
FRYYE	420027.89N / 0832011.22W	Y	FB	TF	094.73	48.00	AT/ABOVE FL240	AT 280K			
MCKOY	415926.14N / 0830630.86W	Y	FB	TF	095.69	10.25	AT/ABOVE FL210				
WEEDN	415837.27N / 0825605.98W	Y	FB	TF	095.93	07.81	AT/ABOVE FL190	AT 280K			
RDZON	415752.34N / 0824645.45W	Y	FB	TF	096.08	07.01	AT/ABOVE 17000				
WINNZ	415526.66N / 0823429.63W	Y	FB	TF	104.78	09.47	AT/ABOVE 14000				
GOLIC	415334.65N / 0822503.86W	Y	FB	TF	104.79	07.28					
BRWNZ	415109.02N / 0821247.85W	Y	FB	TF	104.76	09.48	11000B14000	AT 280K			
En Route Transition											
DOZRR	420105.17N / 0821113.94W	Y		IF			AT/ABOVE 11000		DOZRR.BRWNZ3		
BRWNZ	415109.02N / 0821247.85W	Y	FB	TF	186.72	10.00	11000B14000	AT 280K			
En Route Transition											
HASTE	424015.43N / 0851002.50W	Y		IF					HASTE.BRWNZ3		
MNZEL	423240.02N / 0844505.69W	Y	FB	TF	112.25	19.92					
KWYNN	420849.08N / 0834152.01W	Y	FB	TF	116.60	52.60					

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FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
FRYYE	420027.89N / 0832011.22W	Y	FB	TF	117.23	18.18	AT/ABOVE FL240	AT 280K	
MCKOY	415926.14N / 0830630.86W	Y	FB	TF	095.69	10.25	AT/ABOVE FL210		
WEEDN	415837.27N / 0825605.98W	Y	FB	TF	095.93	07.81	AT/ABOVE FL190	AT 280K	
RDZON	415752.34N / 0824645.45W	Y	FB	TF	096.08	07.01	AT/ABOVE 17000		
WINNZ	415526.66N / 0823429.63W	Y	FB	TF	104.78	09.47	AT/ABOVE 14000		
GOLIC	415334.65N / 0822503.86W	Y	FB	TF	104.79	07.28			
BRWNZ	415109.02N / 0821247.85W	Y	FB	TF	104.76	09.48	11000B14000	AT 280K	
En Route Transition									
OLYEE	424704.67N / 0852910.01W	Y		IF					OLYEE.BRWNZ3
SCHAM	424209.63N / 0850339.20W	Y	FB	TF	104.51	19.43			
HAVEN	423229.24N / 0841448.81W	Y	FB	TF	104.74	37.33			
KWYNN	420849.08N / 0834152.01W	Y	FB	TF	133.90	34.01			
FRYYE	420027.89N / 0832011.22W	Y	FB	TF	117.23	18.18	AT/ABOVE FL240	AT 280K	
MCKOY	415926.14N / 0830630.86W	Y	FB	TF	095.69	10.25	AT/ABOVE FL210		
WEEDN	415837.27N / 0825605.98W	Y	FB	TF	095.93	07.81	AT/ABOVE FL190	AT 280K	
RDZON	415752.34N / 0824645.45W	Y	FB	TF	096.08	07.01	AT/ABOVE 17000		
WINNZ	415526.66N / 0823429.63W	Y	FB	TF	104.78	09.47	AT/ABOVE 14000		
GOLIC	415334.65N / 0822503.86W	Y	FB	TF	104.79	07.28			
BRWNZ	415109.02N / 0821247.85W	Y	FB	TF	104.76	09.48	11000B14000	AT 280K	
En Route Transition									
WINNZ	415526.66N / 0823429.63W	Y		IF			AT/ABOVE 14000		WINNZ.BRWNZ3
GOLIC	415334.65N / 0822503.86W	Y	FB	TF	104.79	07.28			
BRWNZ	415109.02N / 0821247.85W	Y	FB	TF	104.76	09.48	11000B14000	AT 280K	



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STAR (DATA RECORD)

Arrival Name BRWNZ (RNAV)	Number THREE		STAR Computer Code BRWNZ.BRWNZ3			Superseded Number TWO		Dated 10/10/2019	Effective Date
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
Common Route									
BRWNZ	415109.02N / 0821247.85W	Y		IF			11000B14000	AT 280K	BRWNZ.BRWNZ3
USASN	411028.84N / 0813227.68W	Y	FO	TF	143.07	50.70	AT 11000		
1G3,KAKR				FM	092.00				
Common Route									
BRWNZ	415109.02N / 0821247.85W	Y		IF			11000B14000	AT 280K	BRWNZ.BRWNZ3
SLOTR	414910.66N / 0815047.94W	Y	FB	TF	096.72	16.56			
SIIZE	414802.30N / 0813745.77W	Y	FO	TF	096.59	09.81	AT 7000		
KBKL,KCGF,KLNN, KLPR				FM	096.59				
Common Route									
BRWNZ	415109.02N / 0821247.85W	Y		IF			11000B14000	AT 280K	BRWNZ.BRWNZ3
USASN	411028.84N / 0813227.68W	Y	FO	TF	143.07	50.70	AT 11000		
KCAK				FM	112.00				
Runway Transition									
BRWNZ	415109.02N / 0821247.85W	Y		IF			11000B14000	AT 280K	
MAAAK	413502.06N / 0820937.02W	Y	FB	TF	171.57	16.28	AT/ABOVE 7000		
KLLAY	413154.26N / 0820907.66W	Y	FB	TF	173.30	03.15	6000B7000		
JIIIM	412607.51N / 0820815.43W	Y	FB	TF	173.53	05.81	5000B6000		
HICKR	412208.00N / 0820743.36W	Y	FO	TF	174.24	04.01	AT 5000	AT 210K	
KCLE:RWY 6L,RWY 6R				VM	233.00				
Runway Transition									
BRWNZ	415109.02N / 0821247.85W	Y		IF			11000B14000	AT 280K	
TRRKY	414300.84N / 0815501.90W	Y	FB	TF	121.36	15.58	AT/ABOVE 7000		
QUUBE	414119.29N / 0815129.06W	Y	FB	TF	122.46	03.15	6000B7000		
DEEKN	413939.34N / 0814753.74W	Y	FB	TF	121.74	03.16	5000B6000		

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FIX/NAVAID		LAT/LONG		C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS	
LLROY		413730.61N / 0814322.58W		Y	FO	TF	122.30	04.01	AT 5000	AT 210K		
KCLE:RWY 24L,RWY 24R						VM	048.00					
Runway Transition												
BRWNZ		415109.02N / 0821247.85W		Y		IF			11000B14000	AT 280K		
TRRKY		414300.84N / 0815501.90W		Y	FB	TF	121.36	15.58	AT/ABOVE 7000			
DYXON		413937.69N / 0815118.72W		Y	FB	TF	140.51	04.38	AT 7000			
OZZYY		413018.32N / 0813956.47W		Y	FO	TF	137.45	12.64	AT 7000	AT 210K		
KCLE:RWY 28						VM	093.00					

