Flight Procedure Tracking Form	Action: FLIGHT CHECK	Task Type: SID	Date Open: 08/31/2011	Task #: 2010031222706603003	Request #: 20100312227066
Procedure: SID SPAZZ (RNAV) ONE DENVER CO KDEN		Airport ID: KDEN	Airport: DENVER INTERNATIONAL		Reimbursable #:
City: DENVER	**ST:** CO	GPS #:		Estimated Chart Date: 01/10/2013	FICO #:
Fac ID:	Fac. Type: Prac D	Specialist: TRACEY STILES			

Procedure Review

	Rec'd	Rel'd	Full Name	Comments
Lead:	06/27/2012	09/26/2012	CASIMIR TABAKA	DME / DME
QA:	09/26/2012	09/27/2012	SCOTT BEARD	
Liaison:	09/27/2012		Spurlin	DME/DME - WAIVER - APPROVAL REQUEST

Procedure Comments:

Remark Type: INFORMATION

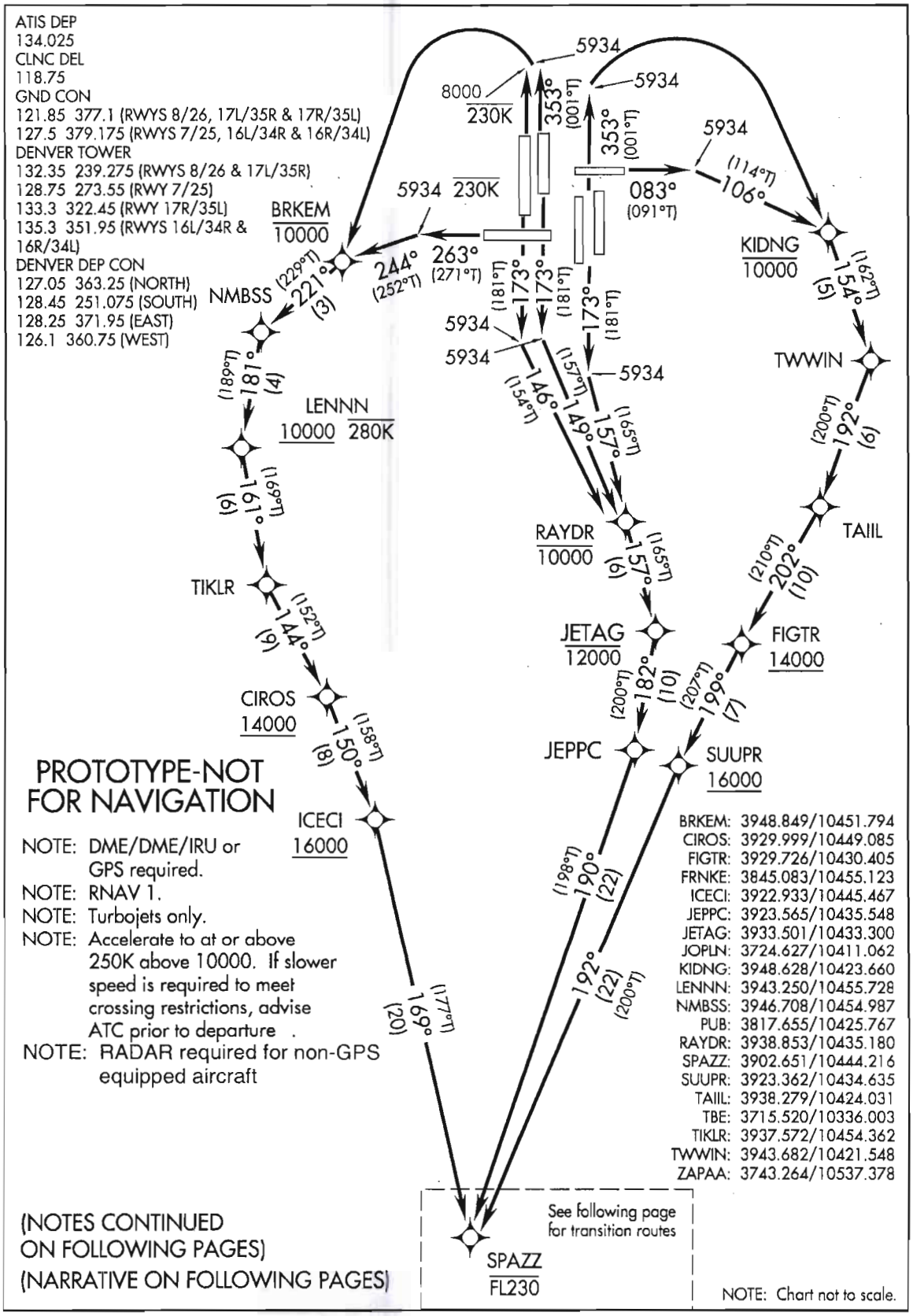
pkg 3 of 4

DENVER, CO DENVER INTERNATIONAL (KDEN) SPAZZ ONE (RNAV) (SID) ENROUTE-NO FC: 10.1.12 PUB: 1.10.13

ATTACHED FORMS: 8260-15B; 8260-15C; 8260-2(S): BRKEM, ORIG; CIROS, ORIG; FIGTR, ORIG; FRNKE, ORIG; ICECI, ORIG; JEPPC, ORIG; JETAG, ORIG; JOPLN, ORIG; LENNN, ORIG; NMBSS, ORIG; RAYDR, ORIG; SPAZZ, ORIG; SUUPR, ORIG; TAIIL, ORIG; TIKLR, ORIG; TWWIN, ORIG; ZAPAA, ORIG; (INFO ONLY) KIDNG, ORIG; PUEBLO (PUB) VTAC, REV 17; TOBE (TBE) VDME, REV 5.

CONTACT: ADOLFO URRUTIA/LONNIE EVERHART-AVN-130 LEADS, 405.954.2079/ 405.954.4576

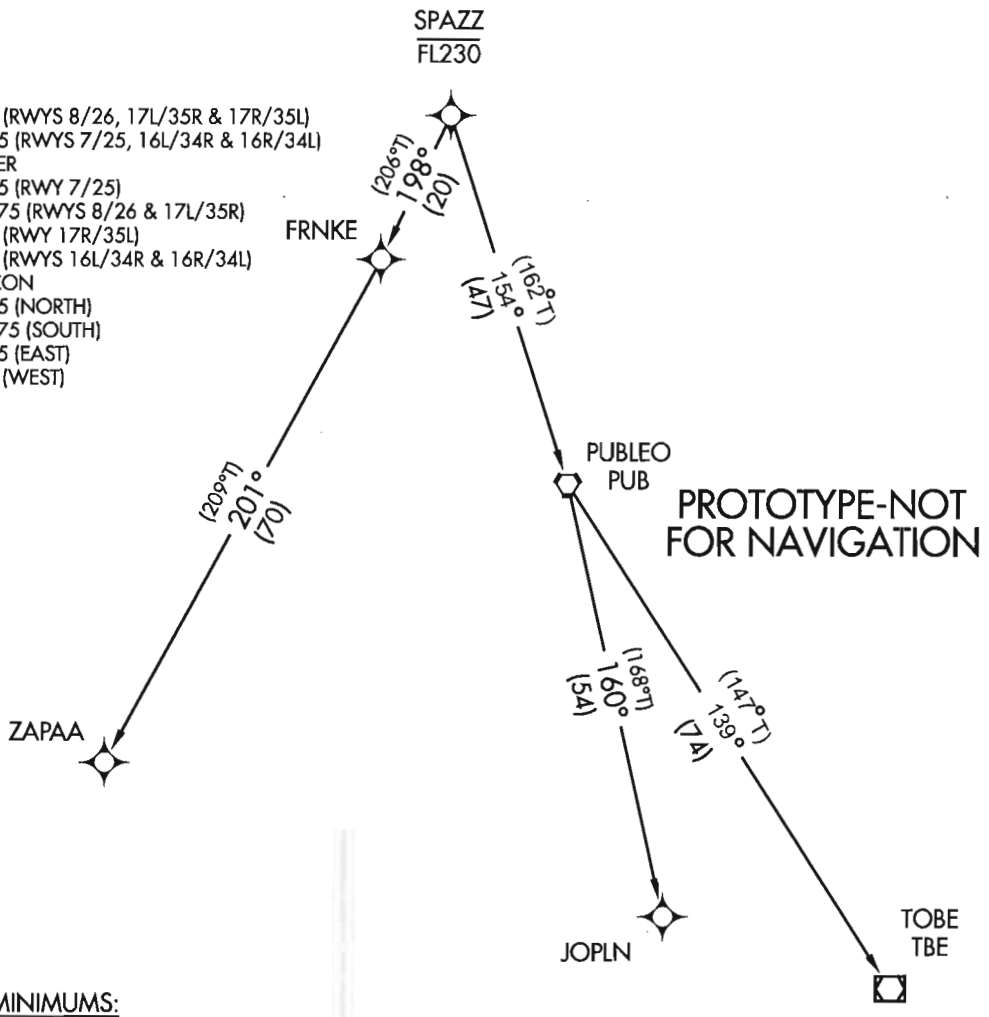
SPAZZ ONE DEPARTURE (RNAV) Departure Routes



(NOTES CONTINUED ON FOLLOWING PAGES)
(NARRATIVE ON FOLLOWING PAGES)

SPAZZ ONE DEPARTURE (RNAV) Transition Routes

ATIS DEP
134.025
CLNC DEL
118.75
GND CON
121.85 377.1 (RWYS 8/26, 17L/35R & 17R/35L)
127.5 379.175 (RWYS 7/25, 16L/34R & 16R/34L)
DENVER TOWER
128.75 273.55 (RWY 7/25)
132.35 239.275 (RWYS 8/26 & 17L/35R)
133.3 322.45 (RWY 17R/35L)
135.3 351.95 (RWYS 16L/34R & 16R/34L)
DENVER DEP CON
127.05 363.25 (NORTH)
128.45 251.075 (SOUTH)
128.25 371.95 (EAST)
126.1 360.75 (WEST)



TAKEOFF MINIMUMS:

Rwys 7, 26: NA - ATC.

Rwy 8: Standard with minimum climb of 475' per NM to 5934, then minimum climb of 275' per NM to 16000.

Rwy 25: Standard with minimum climb of 410' per NM to 9000, then minimum climb of 285' per NM to 16000.

Rwys 16L/R: Standard with minimum climb of 325' per NM to 10000.

Rwys 17L/R: Standard with minimum climb of 350' per NM to 5934, then minimum climb of 250' per NM to 15000.

Rwy 34L: Standard with minimum climb of 410' per NM to 8000, then minimum climb of 285' per NM to 15000.

RWY 34R: STANDARD WITH MINIMUM CLIMB OF 410 FT PER NM TO 5934, THEN MINIMUM CLIMB OF 285' PER NM TO 15000.

Rwy 35L: Standard with minimum climb of 450' per NM to 5934, then minimum climb of 280' per NM to 15000.

Rwy 35R: Standard with minimum climb of 410' per NM to 5934, then minimum climb of 260' per NM to 16000.

TAKEOFF OBSTACLE NOTES

Rwy 16L: Multiple signs beginning 126' from DER, 490' left of centerline, up to 7' AGL/5359' MSL. Communication tower 4749' from DER, 1358' left of centerline, 107' AGL/5478' MSL.

Rwy 25: Sign 48' from DER, 450' right of centerline, 6' AGL/5354' MSL.

(NARRATIVE CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

SPAZZ ONE DEPARTURE (RNAV)

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 8: Climb heading 083° to intercept course 106° to cross KIDNG at or below 10000, then on track 154° to TWWIN, then on track 192° to TAILL, then on track 202° to cross FIGTR at or above 14000, then on track 199° to cross SUUPR at or above 16000, then on track 192° to cross SPAZZ at or below FL230. Thence . . . .

TAKEOFF RUNWAY 16L: Climb heading 173° to intercept course 149° to cross RAYDR at or below 10000, then on track 157° to cross JETAG at or below 12000, then on track 182° to JEPPC, then on track 190° to cross SPAZZ at or below FL230. Thence . . . .

TAKEOFF RUNWAY 16R: Climb heading 173° to intercept course 146° to cross RAYDR at or below 10000, then on track 157° to cross JETAG at or below 12000, then on track 182° to JEPPC, then on track 190° to cross SPAZZ at or below FL230. Thence . . . .

TAKEOFF RUNWAY 17L : Climb heading 173° to intercept course 157° to cross RAYDR at or below 10000, then on track 157° to cross JETAG at or below 12000, then on track 182° to JEPPC, then on track 190° to cross SPAZZ at or below FL230. Thence . . . .

TAKEOFF RUNWAY 17R : Climb heading 173° to intercept course 152° to cross RAYDR at or below 10000, then on track 157° to cross JETAG at or below 12000, then on track 182° to JEPPC, then on track 190° to cross SPAZZ at or below FL230. Thence . . . .

TAKEOFF RUNWAY 25: Climb heading 263° at or below 230K, to intercept course 244° to cross BRKEM at or below 10000, then on track 221° to NMBSS, then on track 181° to cross LENNN at or above 10000 at or below 280K, then on track 161° to TIKLR, then on track 144° to cross CIROS at or above 14000, then on track 150° to cross ICECI at or above 16000, then on track 169° to cross SPAZZ at or below FL230. Thence . . . .

TAKEOFF RUNWAYS 34L/34R: Climb heading 353° to 5934 at or below 230K, then climbing left turn direct TO CROSS BRKEM AT OR BELOW 10000, then on track 221° to NMBSS, then on track 181° to cross LENNN at or above 10000 at or below 280K, then on track 161° to TIKLR, then on track 144° to cross CIROS at or above 14000, then on track 150° to cross ICECI at or above 16000, then on track 169° to cross SPAZZ at or below FL230. Thence . . .

TAKEOFF RUNWAYS 35L/R: Climb heading 353° to 5934, then climbing right turn direct to cross KIDNG at or below 10000, then on track 154° to TWWIN, then on track 192° to TAILL, then on track 202° to cross FIGTR at or above 14000, then on track 199° to cross SUUPR at or above 16000, then on track 192° to cross SPAZZ at or below FL230. Thence . . . .

. . . . as depicted. Maintain FL230 or filed lower altitude, expect higher filed altitude ten minutes after departure.

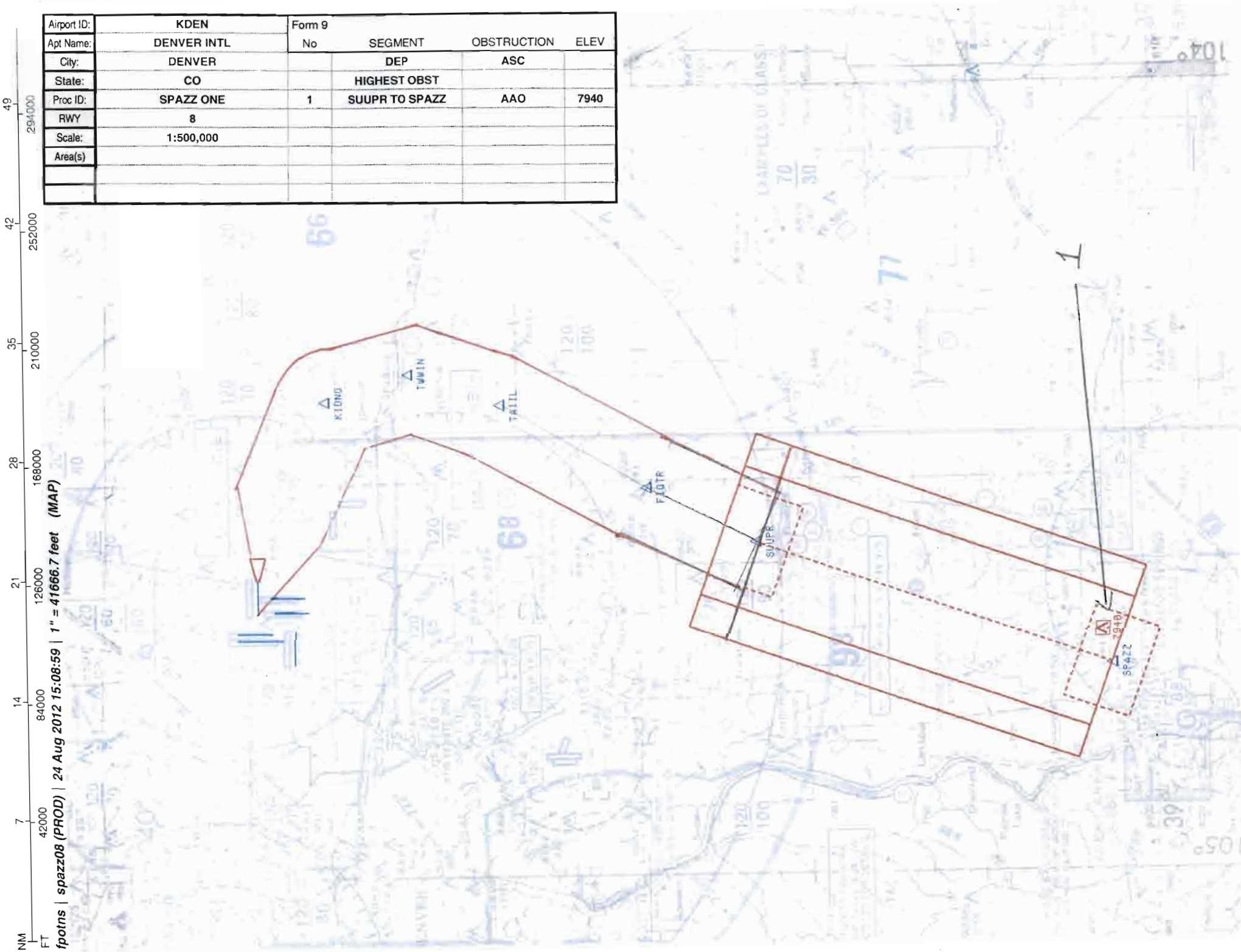
JOPLN TRANSITION (SPAZZ1.JOPLN)
TOBE TRANSITION (SPAZZ1.TBE)
ZAPAA TRANSITION (SPAZZ1.ZAPAA)

PROTOTYPE: NOT FOR NAVIGATION

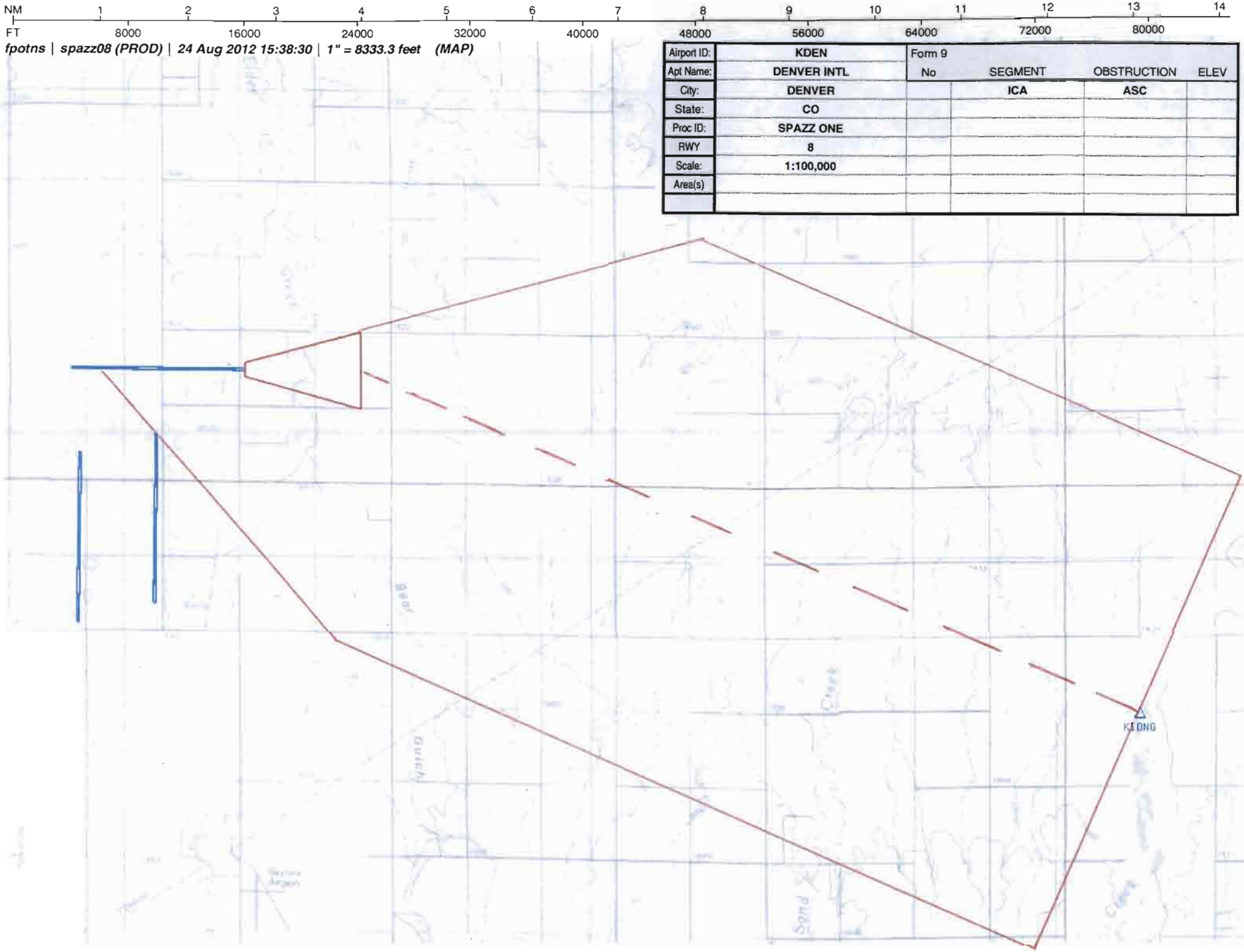
Airport ID:	KDEN
Apt Name:	DENVER INTL
City:	DENVER
State:	CO
Proc ID:	SPAZZ ONE
RWY	8
Scale:	1:500,000
Area(s)	

Form 9

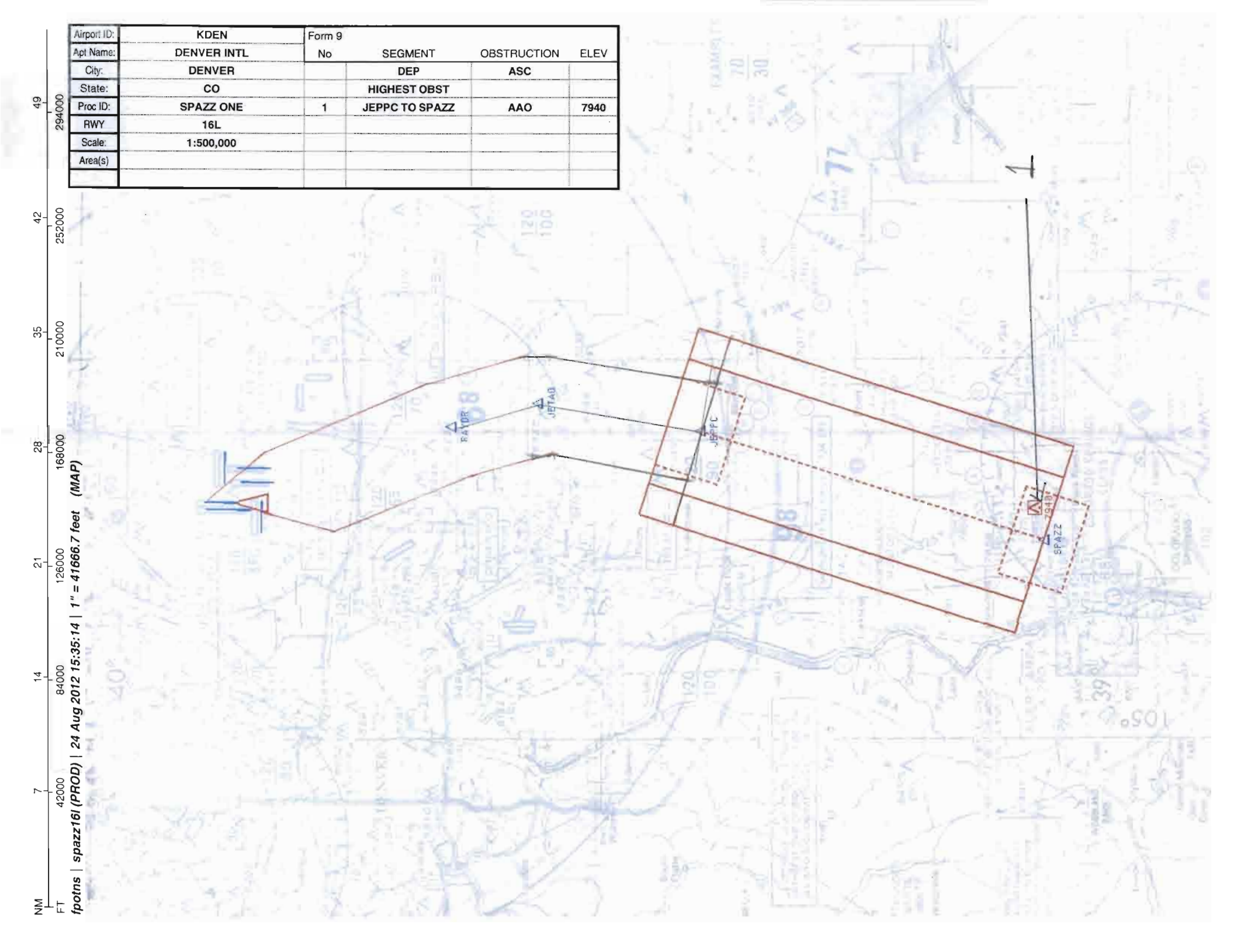
No	SEGMENT	OBSTRUCTION	ELEV
	DEP	ASC	
	HIGHEST OBST		
1	SUUPR TO SPAZZ	AAO	7940



fpotns | spazz08 (PROD) | 24 Aug 2012 15:08:59 | 1" = 41666.7 feet (MAP)


NM 1 2 3 4 5 6 7 8 9 10 11 12 13 14
FT 8000 16000 24000 32000 40000 48000 56000 64000 72000 80000
fpotns | spazz08 (PROD) | 24 Aug 2012 15:38:30 | 1" = 8333.3 feet (MAP)
Airport ID: KDEN
Apt Name: DENVER INTL
City: DENVER
State: CO
Proc ID: SPAZZ ONE
RWY 8
Scale: 1:100,000
Area(s)
Form 9 No
SEGMENT ICA
OBSTRUCTION ASC
ELEV
KIDNG

Airport ID:	KDEN	Form 9			
Apt Name:	DENVER INTL	No	SEGMENT	OBSTRUCTION	ELEV
City:	DENVER		DEP	ASC	
State:	CO		HIGHEST OBST		
Proc ID:	SPAZZ ONE	1	JEPPC TO SPAZZ	AAO	7940
RWY	16L				
Scale:	1:500,000				
Area(s)					



NM 49 42 35 28 21 14 7

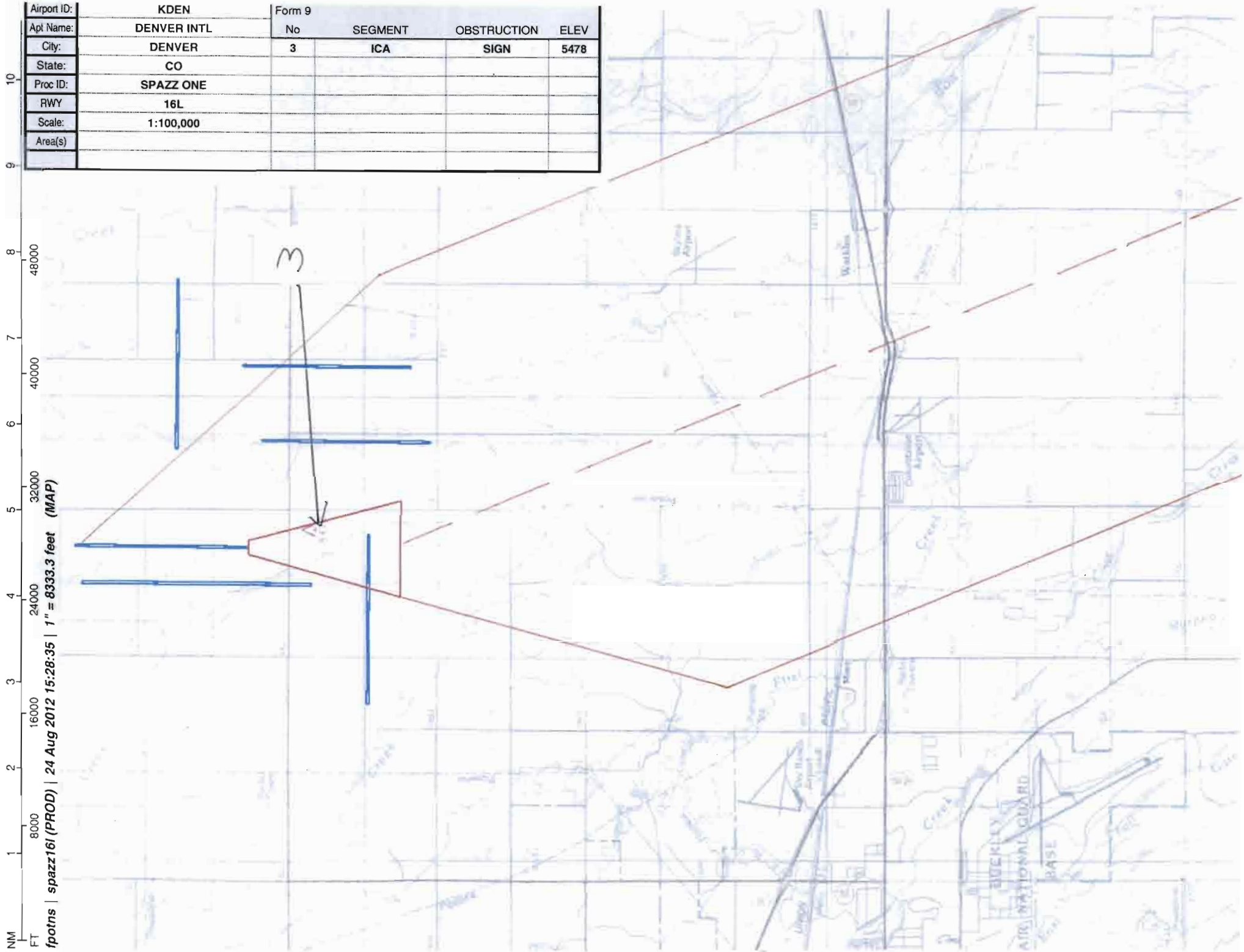
FT 294000 252000 210000 168000 126000 84000 42000

fpotns | spazz16l (PROD) | 24 Aug 2012 15:35:14 | 1" = 41666.7 feet (MAP)

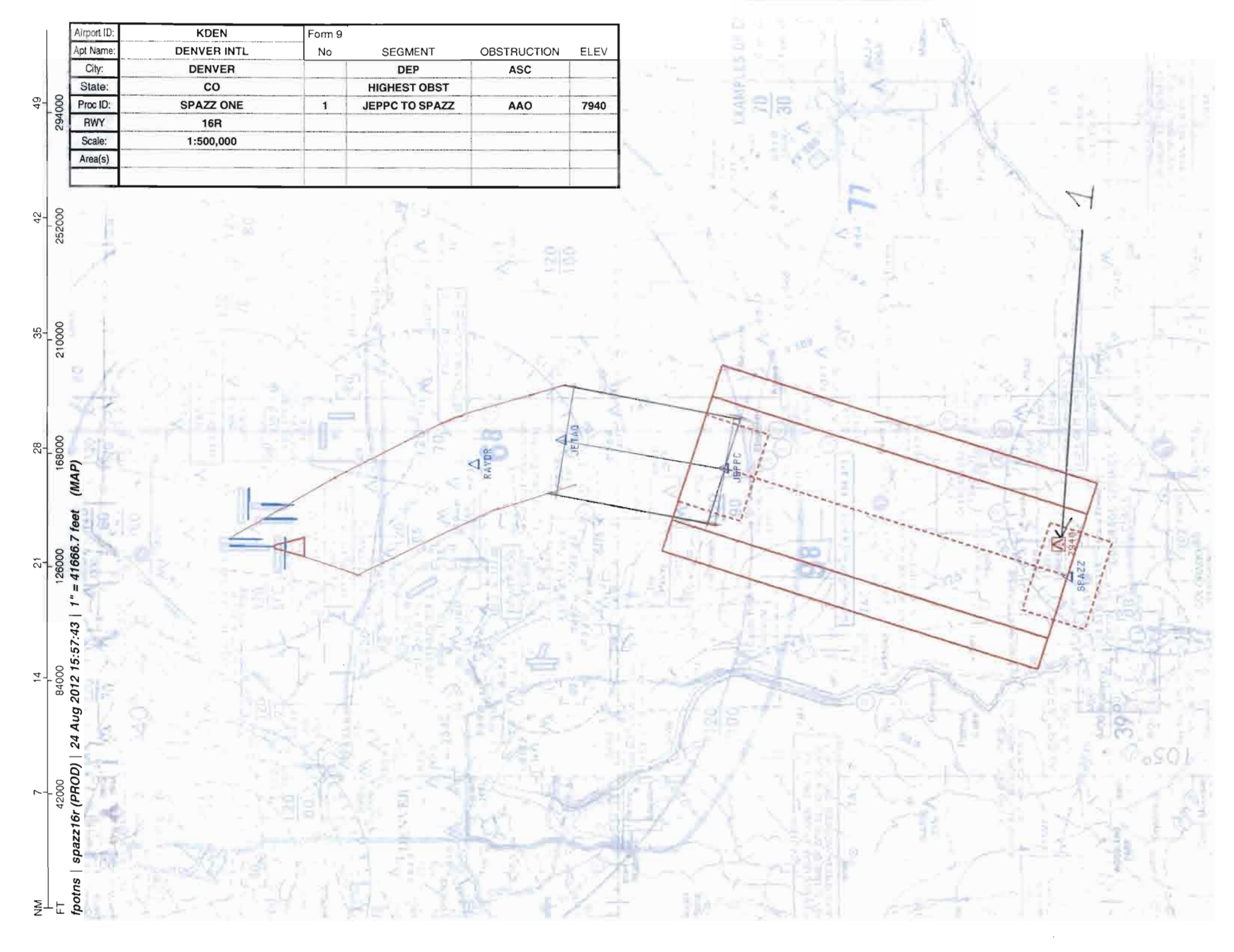
Airport ID:	KDEN
Apt Name:	DENVER INTL
City:	DENVER
State:	CO
Proc ID:	SPAZZ ONE
RWY	16L
Scale:	1:100,000
Area(s)	

Form 9

No	SEGMENT	OBSTRUCTION	ELEV
3	ICA	SIGN	5478



Airport ID:	KDEN	Form 9			
Apt Name:	DENVER INTL	No	SEGMENT	OBSTRUCTION	ELEV
City:	DENVER		DEP	ASC	
State:	CO		HIGHEST OBST		
Proc ID:	SPAZZ ONE	1	JEPPC TO SPAZZ	AAO	7940
RWY	16R				
Scale:	1:500,000				
Area(s)					

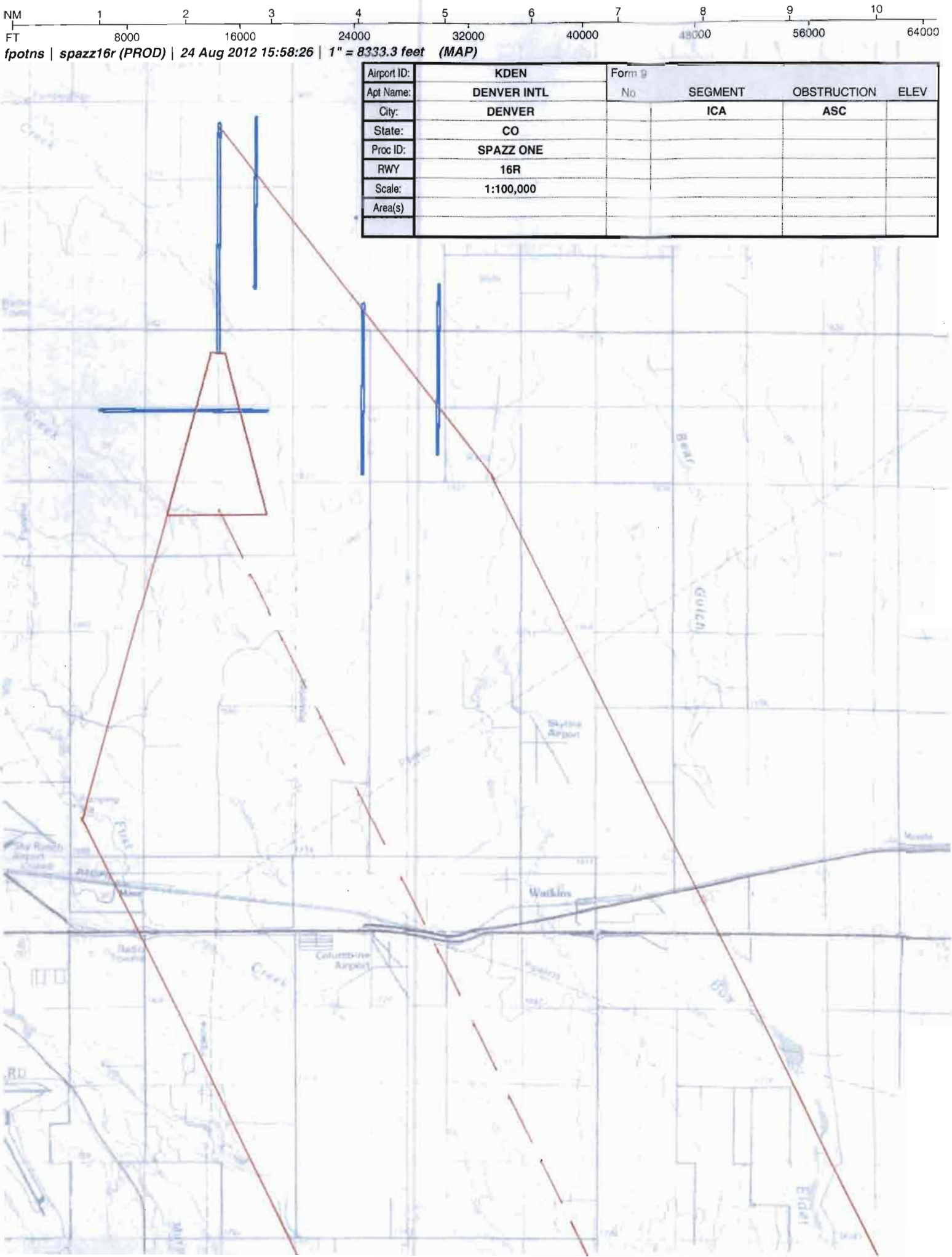


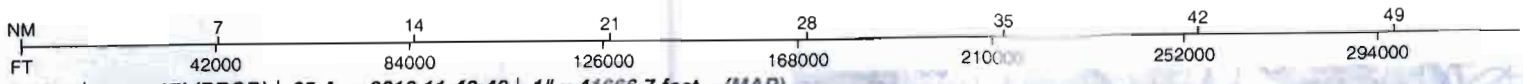
NM 49 42 35 28 21 14 7
FT 294000 252000 210000 168000 126000 84000 42000

fpotns | spazz16r (PROD) | 24 Aug 2012 15:57:43 | 1" = 41666.7 feet (MAP)

fpotns | spazz16r (PROD) | 24 Aug 2012 15:58:26 | 1" = 8333.3 feet (MAP)

Airport ID:	KDEN	Form 9			
Apt Name:	DENVER INTL	No	SEGMENT	OBSTRUCTION	ELEV
City:	DENVER		ICA	ASC	
State:	CO				
Proc ID:	SPAZZ ONE				
RWY	16R				
Scale:	1:100,000				
Area(s)					

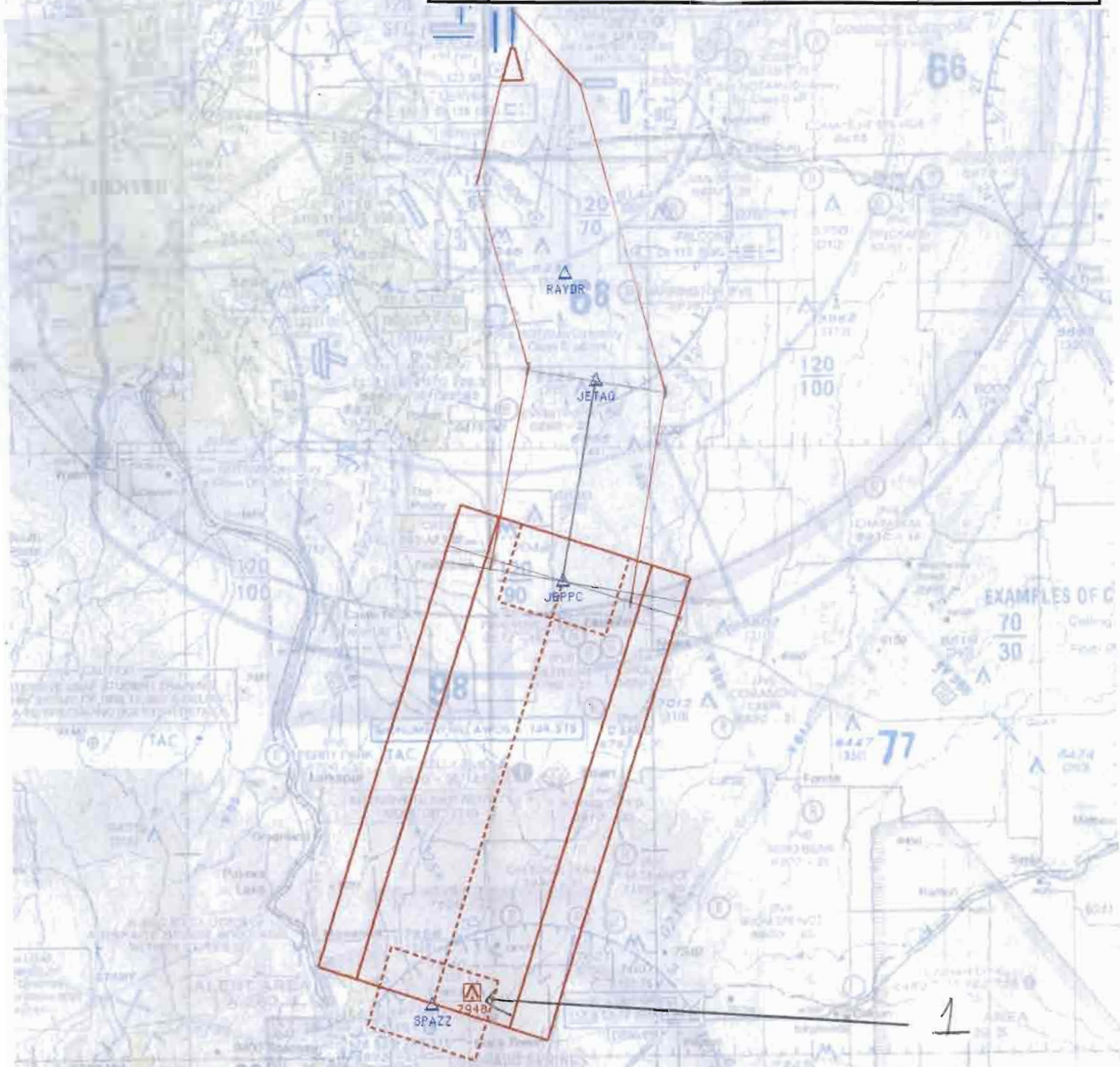


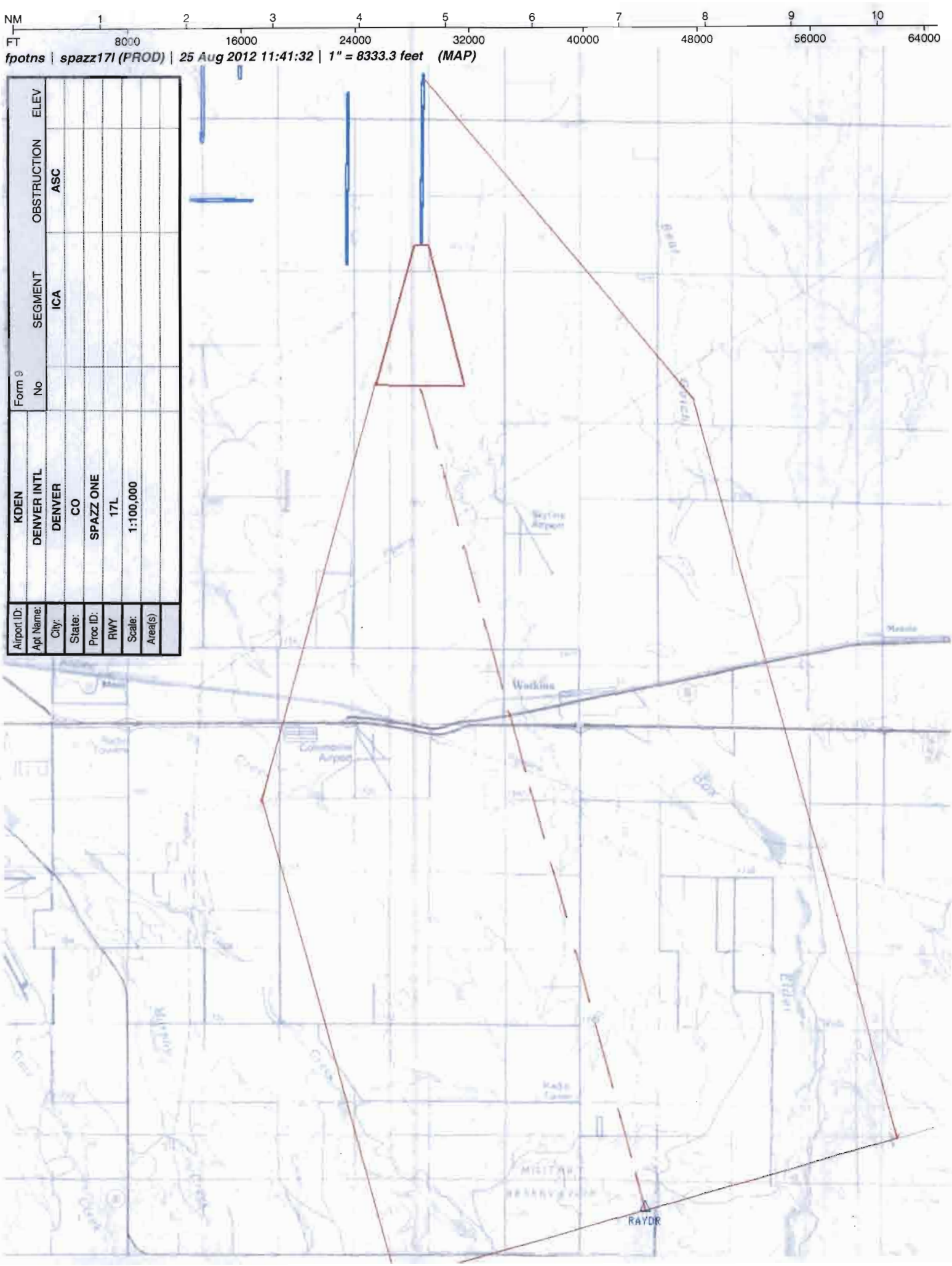


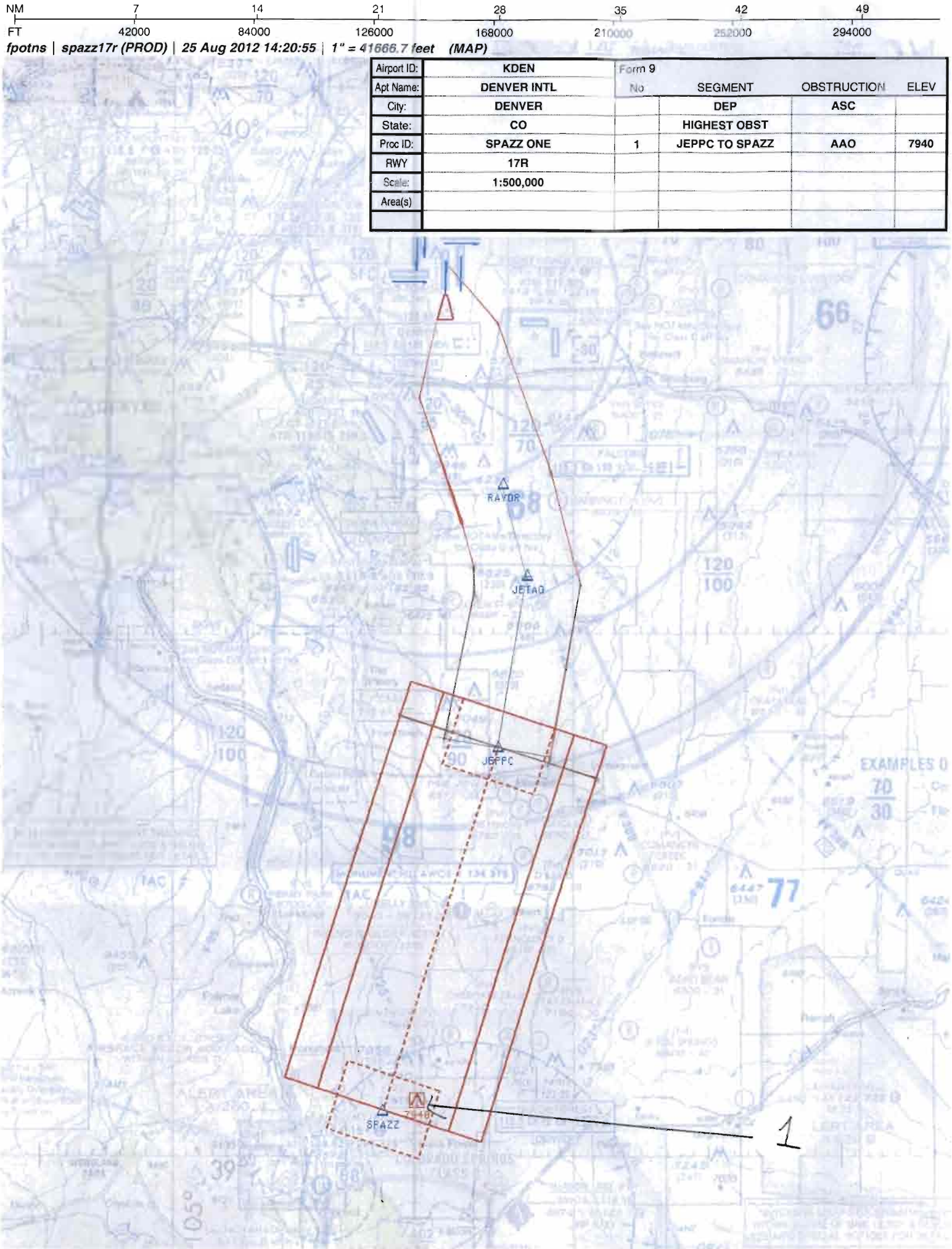
fpotns | spazz17l (PROD) | 25 Aug 2012 11:40:49 | 1" = 4[illegible]666.7 feet (MAP)

Airport ID:	KDEN
Apt Name:	DENVER INTL
City:	DENVER
State:	CO
Proc ID:	SPAZZ ONE
RWY	17L
Scale:	1:500,000
Area(s)	

Form 9 No	SEGMENT	OBSTRUCTION	ELEV
	DEP	ASC	
	HIGHEST OBST		
1	JEPPC TO SPAZZ	AAO	7940



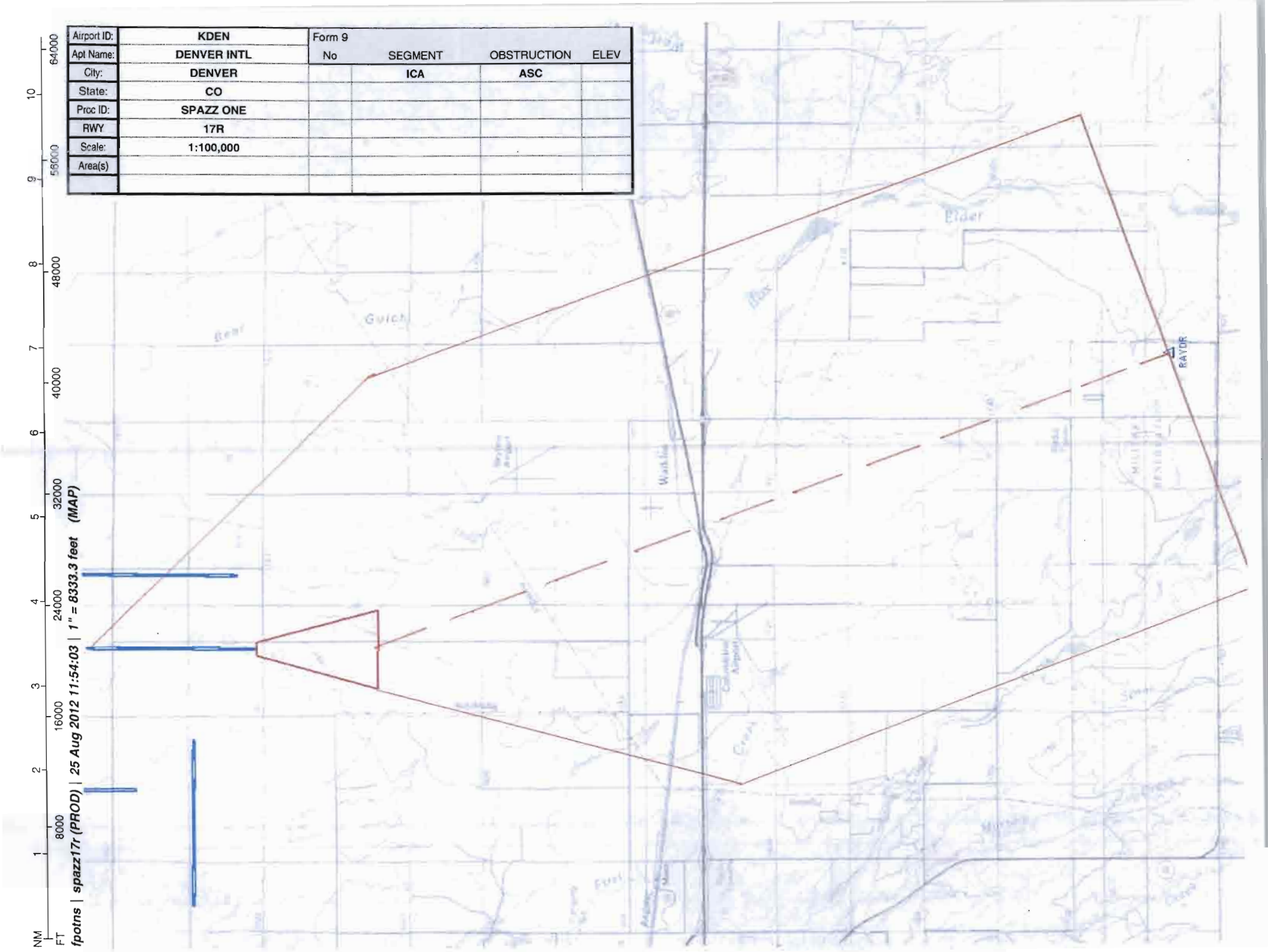

NM 1 2 3 4 5 6 7 8 9 10
FT 8000 16000 24000 32000 40000 48000 56000 64000
fpotns | spazz17l (PROD) | 25 Aug 2012 11:41:32 | 1" = 8333.3 feet (MAP)
Airport ID: KDEN
Apt Name: DENVER INTL
City: DENVER
State: CO
Proc ID: SPAZZ ONE
RWY 17L
Scale: 1:100,000
Area(s)
Form 9
No
SEGMENT
ICA
OBSTRUCTION
ASC
ELEV
RAYDR



Airport ID:	KDEN
Apt Name:	DENVER INTL
City:	DENVER
State:	CO
Proc ID:	SPAZZ ONE
RWY	17R
Scale:	1:500,000
Area(s)	

Form 9

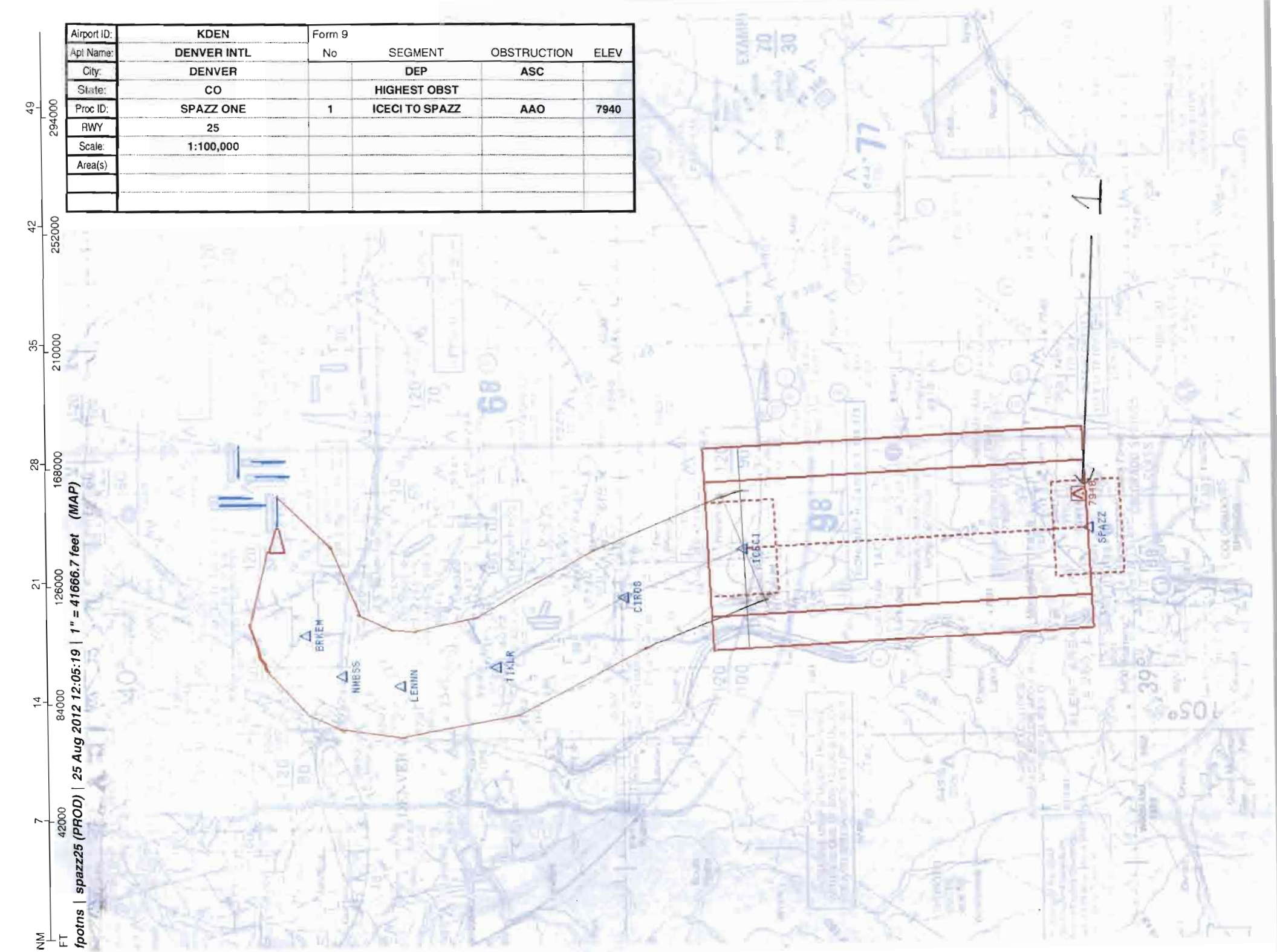
No	SEGMENT	OBSTRUCTION	ELEV
	DEP	ASC	
	HIGHEST OBST		
1	JEPPC TO SPAZZ	AAO	7940

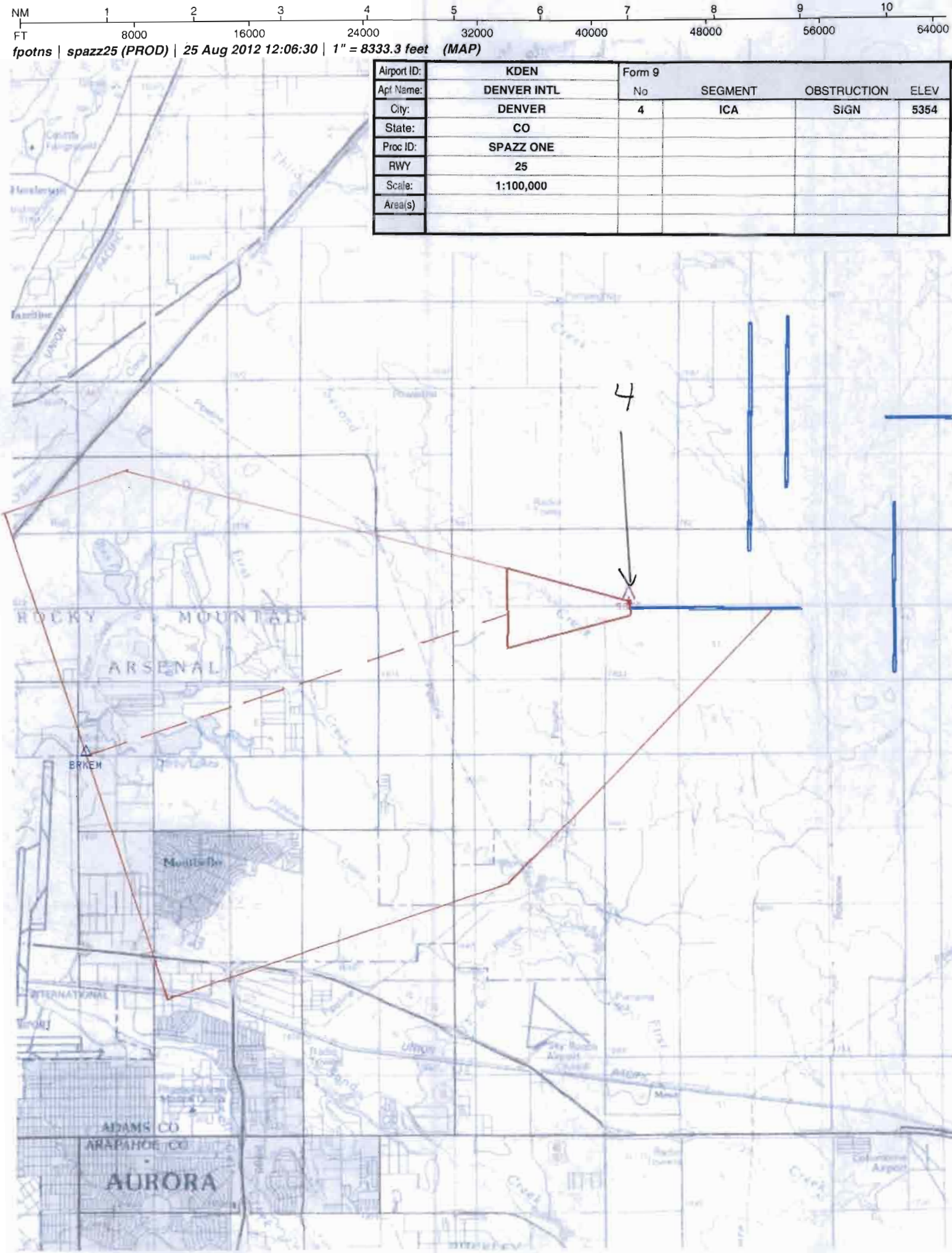

Airport ID: KDEN
Apt Name: DENVER INTL
City: DENVER
State: CO
Proc ID: SPAZZ ONE
RWY 17R
Scale: 1:100,000
Area(s)
Form 9
No
SEGMENT
ICA
OBSTRUCTION
ASC
ELEV
NM
FT
64000
56000
48000
40000
32000
24000
16000
8000
RAYDR
fpotns | spazz17r (PROD) | 25 Aug 2012 11:54:03 | 1" = 8333.3 feet (MAP)

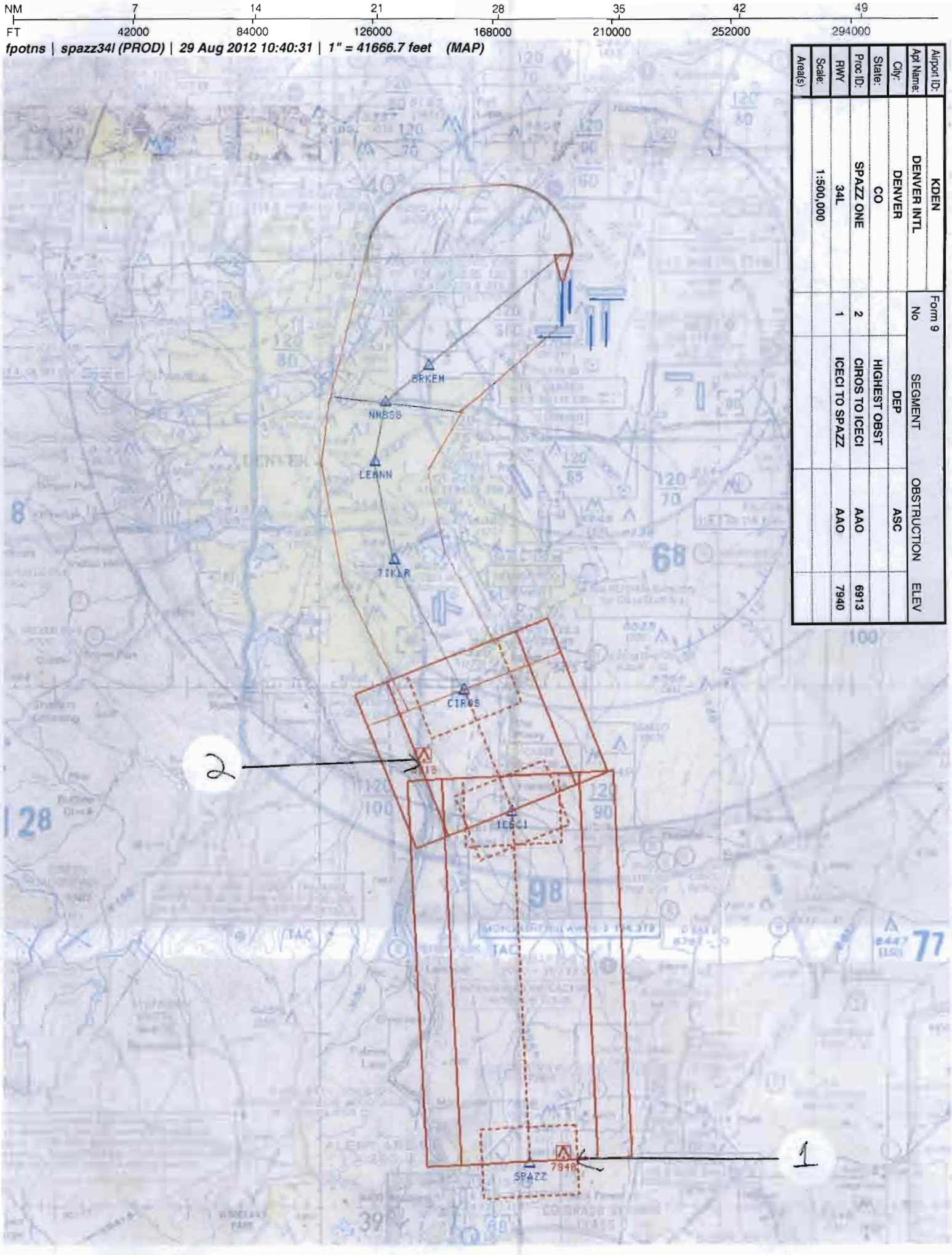
Airport ID:	KDEN
Apt Name:	DENVER INTL
City:	DENVER
State:	CO
Proc ID:	SPAZZ ONE
RWY	25
Scale:	1:100,000
Area(s)	

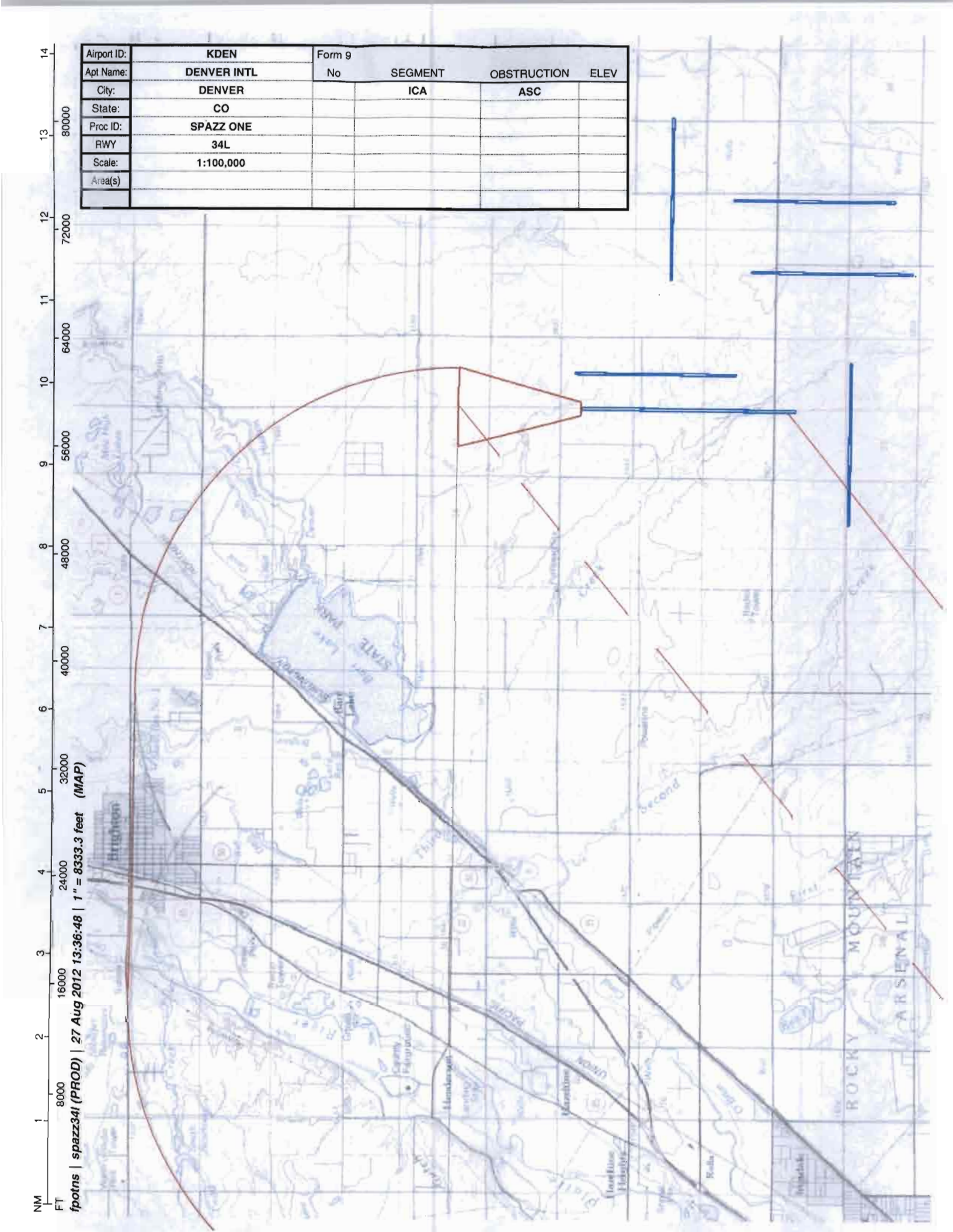
Form 9

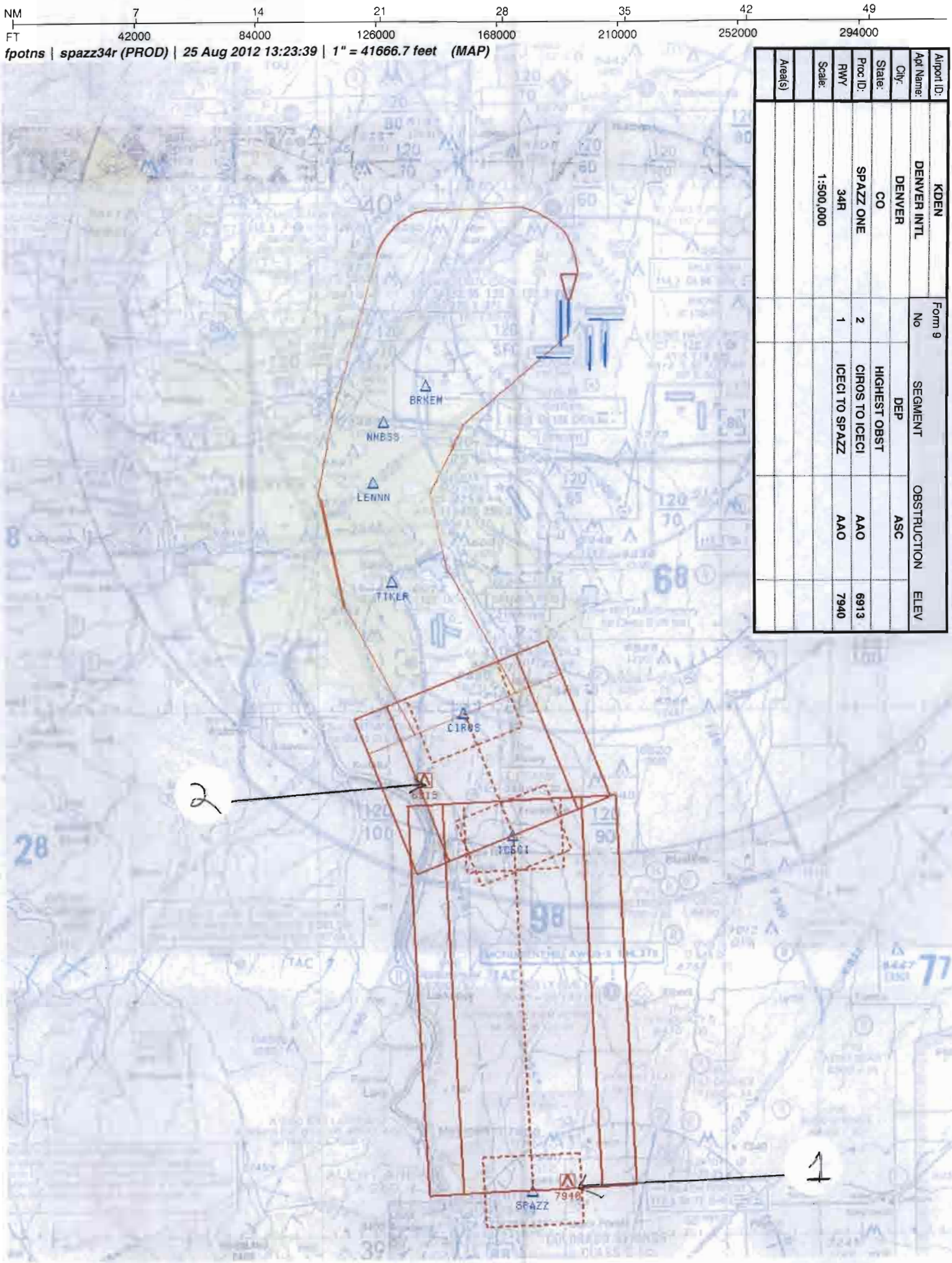
No	SEGMENT	OBSTRUCTION	ELEV
	DEP	ASC	
	HIGHEST OBST		
1	ICECI TO SPAZZ	AAO	7940



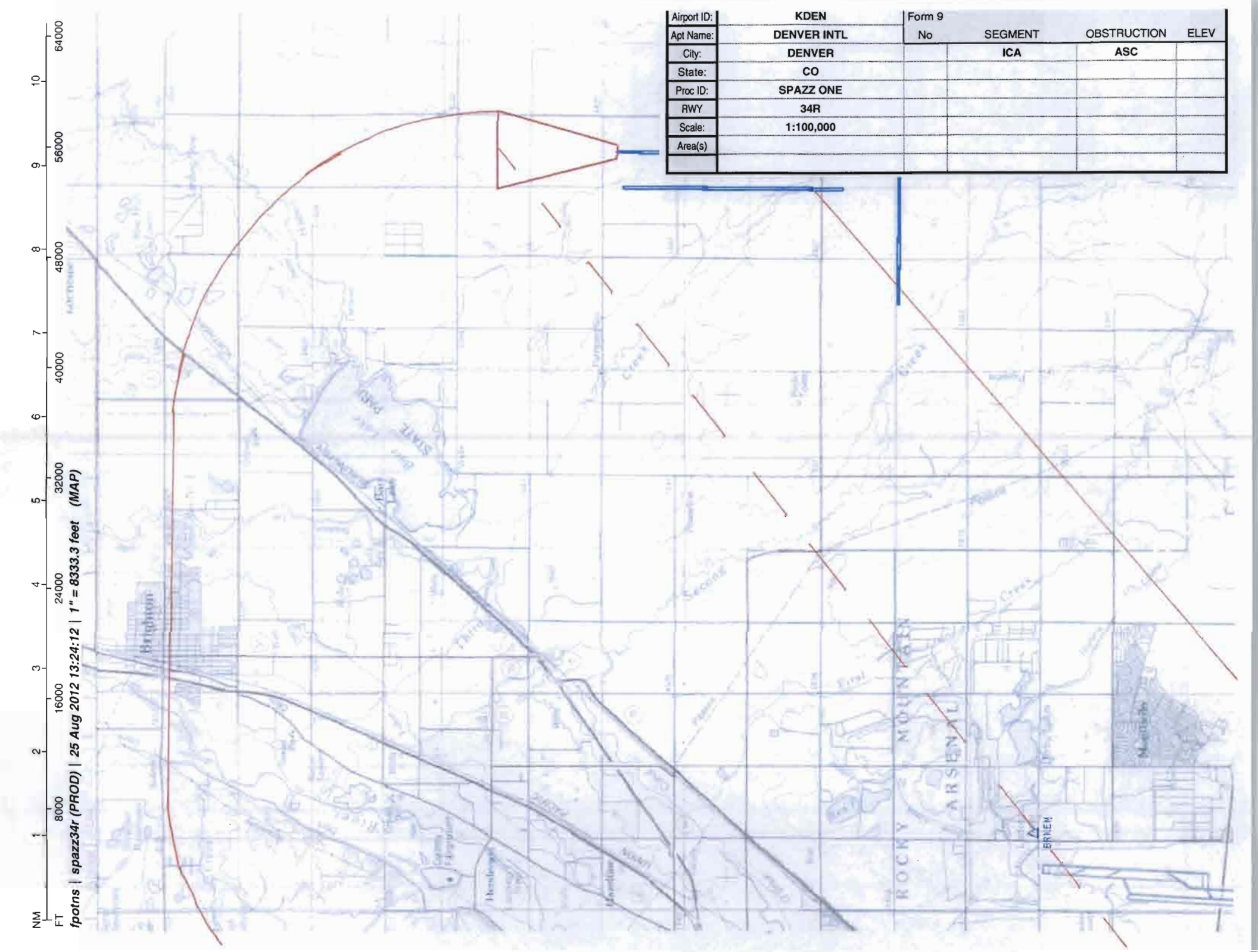

NM 1 2 3 4 5 6 7 8 9 10
FT 8000 16000 24000 32000 40000 48000 56000 64000
fpotns | spazz25 (PROD) | 25 Aug 2012 12:06:30 | 1" = 8333.3 feet (MAP)
Airport ID: KDEN
Apt Name: DENVER INTL
City: DENVER
State: CO
Proc ID: SPAZZ ONE
RWY 25
Scale: 1:100,000
Area(s)
Form 9
No 4
SEGMENT ICA
OBSTRUCTION SIGN
ELEV 5354
4
ROCKY MOUNTAIN
ARSENAL
BRKEM
ADAMS CO
ARAPAHOE CO
AURORA

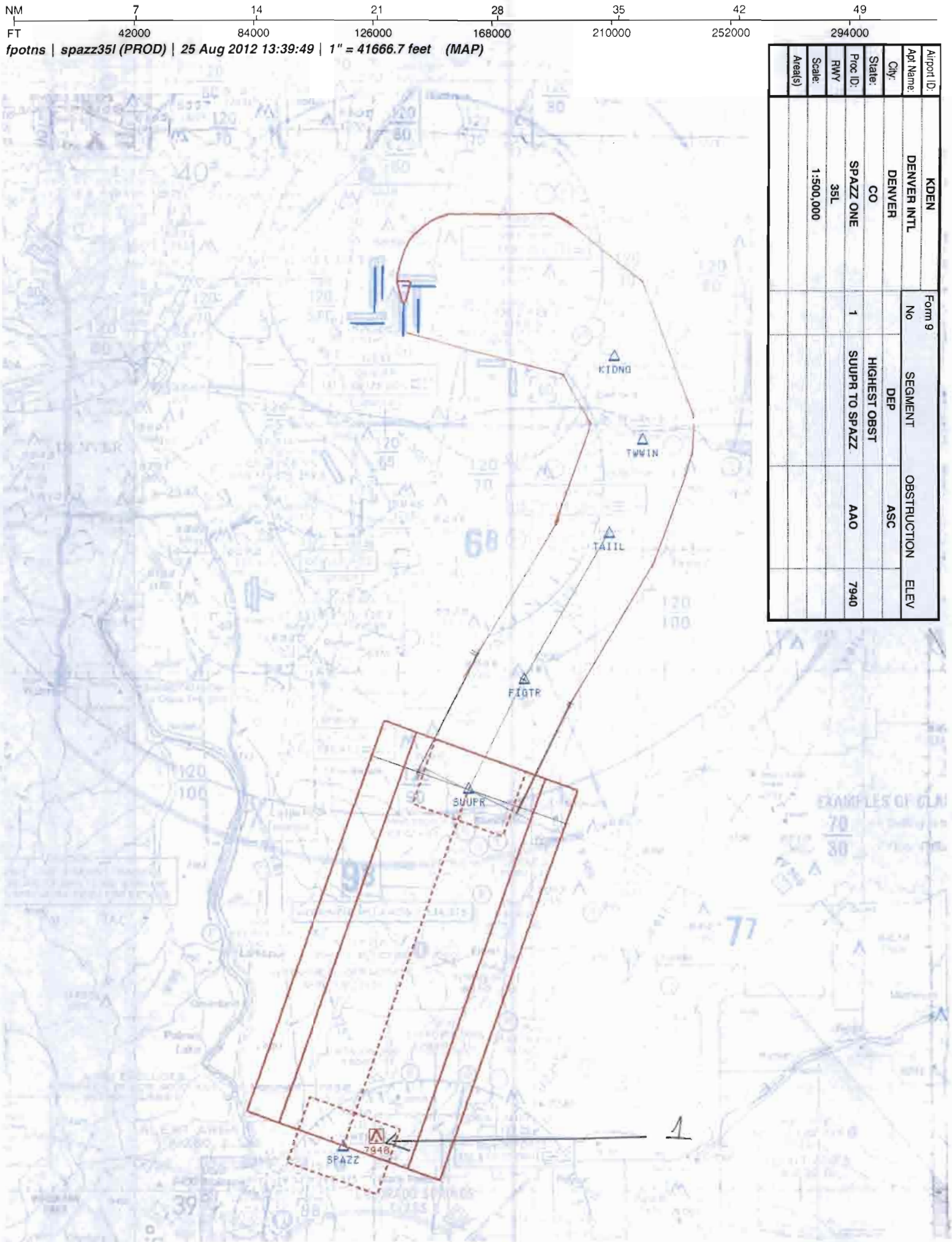

NM 7 14 21 28 35 42 49
FT 42000 84000 126000 168000 210000 252000 294000
fpotns | spazz34l (PROD) | 29 Aug 2012 10:40:31 | 1" = 41666.7 feet (MAP)
Airport ID: KDEN
Apt Name: DENVER INTL
City: DENVER
State: CO
Proc ID: SPAZZ ONE
RWY 34L
Scale: 1:500,000
Area(s)
Form 9
No SEGMENT OBSTRUCTION ELEV
1 ICECI TO SPAZZ AAO 7940
2 CIROS TO ICECI AAO 6913
DEP ASC
HIGHEST OBST
BRKEM
NNBSS
LENNN
TIKLR
CIROS
ICECI
SPAZZ
7948
2
1

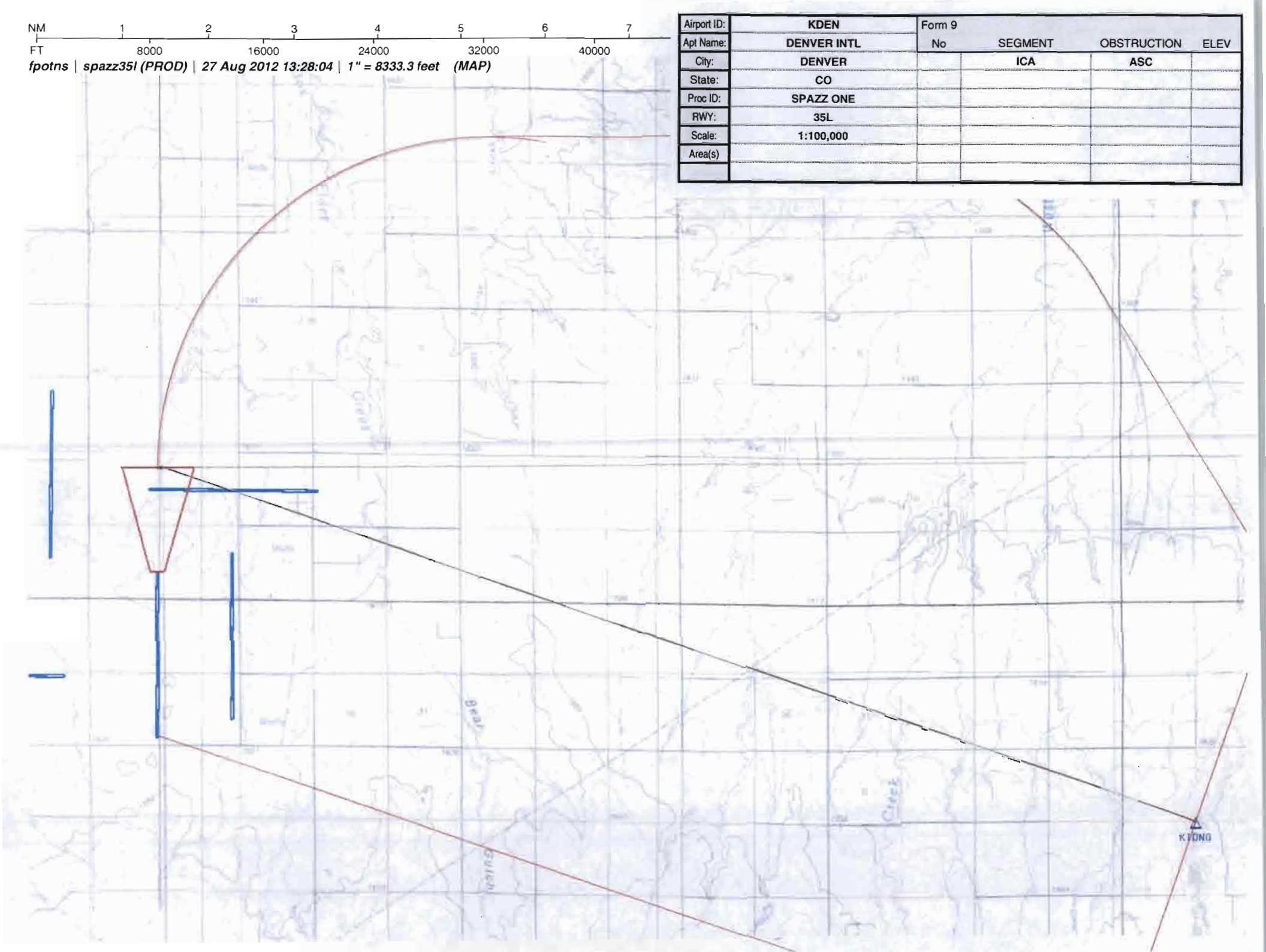

Airport ID: KDEN
Apt Name: DENVER INTL
City: DENVER
State: CO
Proc ID: SPAZZ ONE
RWY 34L
Scale: 1:100,000
Area(s)
Form 9
No
SEGMENT
ICA
OBSTRUCTION
ASC
ELEV
NM
FT
1
2
3
4
5
6
7
8
9
10
11
12
13
14
8000
16000
24000
32000
40000
48000
56000
64000
72000
80000
fpotns | spazz34l (PROD) | 27 Aug 2012 13:36:48 | 1" = 8333.3 feet (MAP)
Brighton
ROCKY MOUNTAIN ARSENAL



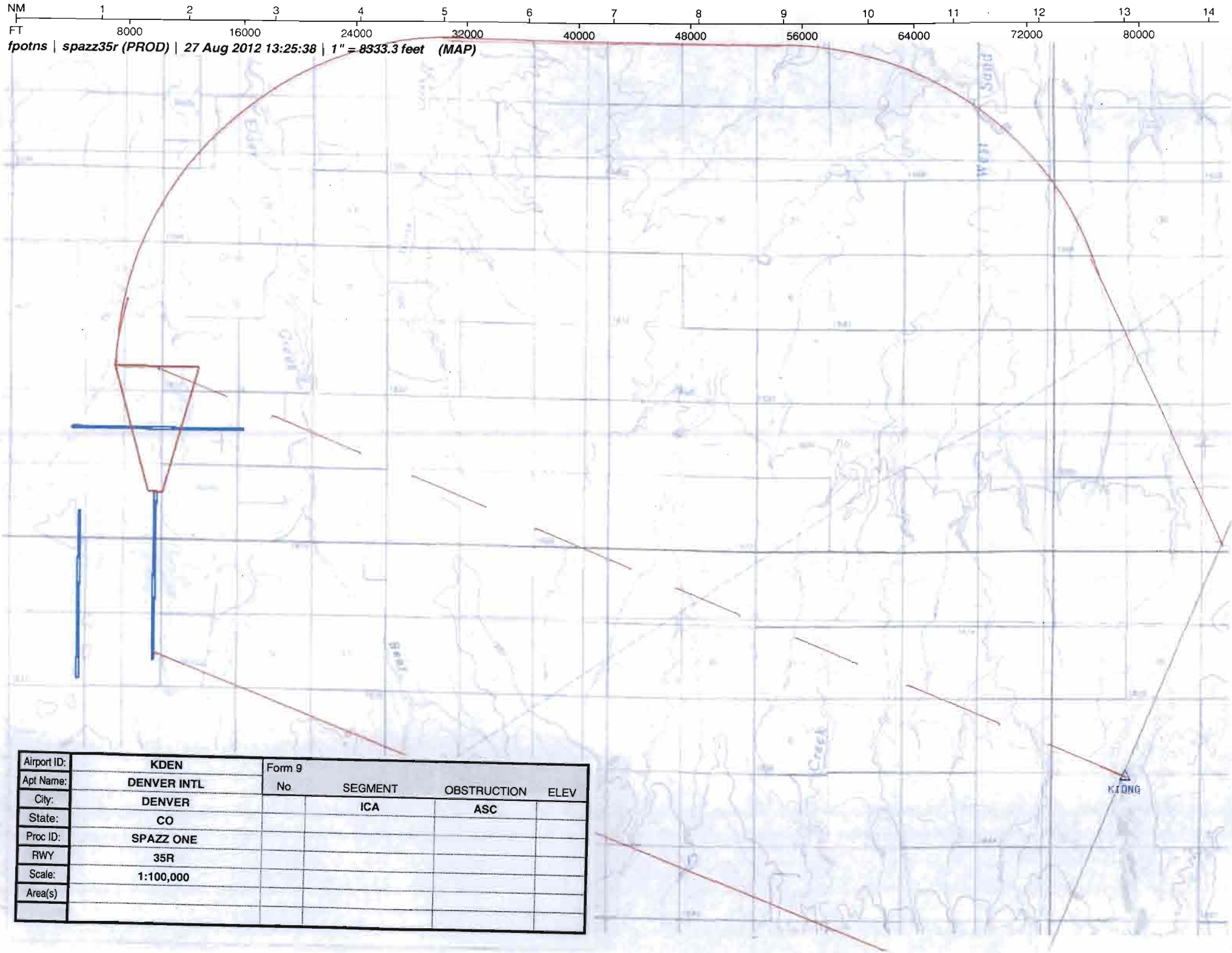
Airport ID:	KDEN					
Apt Name:	DENVER INTL					
City:	DENVER					
State:	CO					
Proc ID:	SPAZZ ONE					
RWY	34R	1	ICECI TO SPAZZ	AAO	7940	
Scale:	1:500,000		CIROS TO ICECI	AAO	6913	
		2	HIGHEST OBST	ASC		
Area(s)		Form 9 No	SEGMENT	OBSTRUCTION	ELEV	


Airport ID: KDEN
Apt Name: DENVER INTL
City: DENVER
State: CO
Proc ID: SPAZZ ONE
RWY 34R
Scale: 1:100,000
Area(s)
Form 9
No SEGMENT OBSTRUCTION ELEV
ICA ASC
NM 1 2 3 4 5 6 7 8 9 10
FT 8000 16000 24000 32000 40000 48000 56000 64000
fpotns | spazz34r (PROD) | 25 Aug 2012 13:24:12 | 1" = 8333.3 feet (MAP)
Brighton
ROCKY MOUNTAIN ARSENAL
BROMLEY

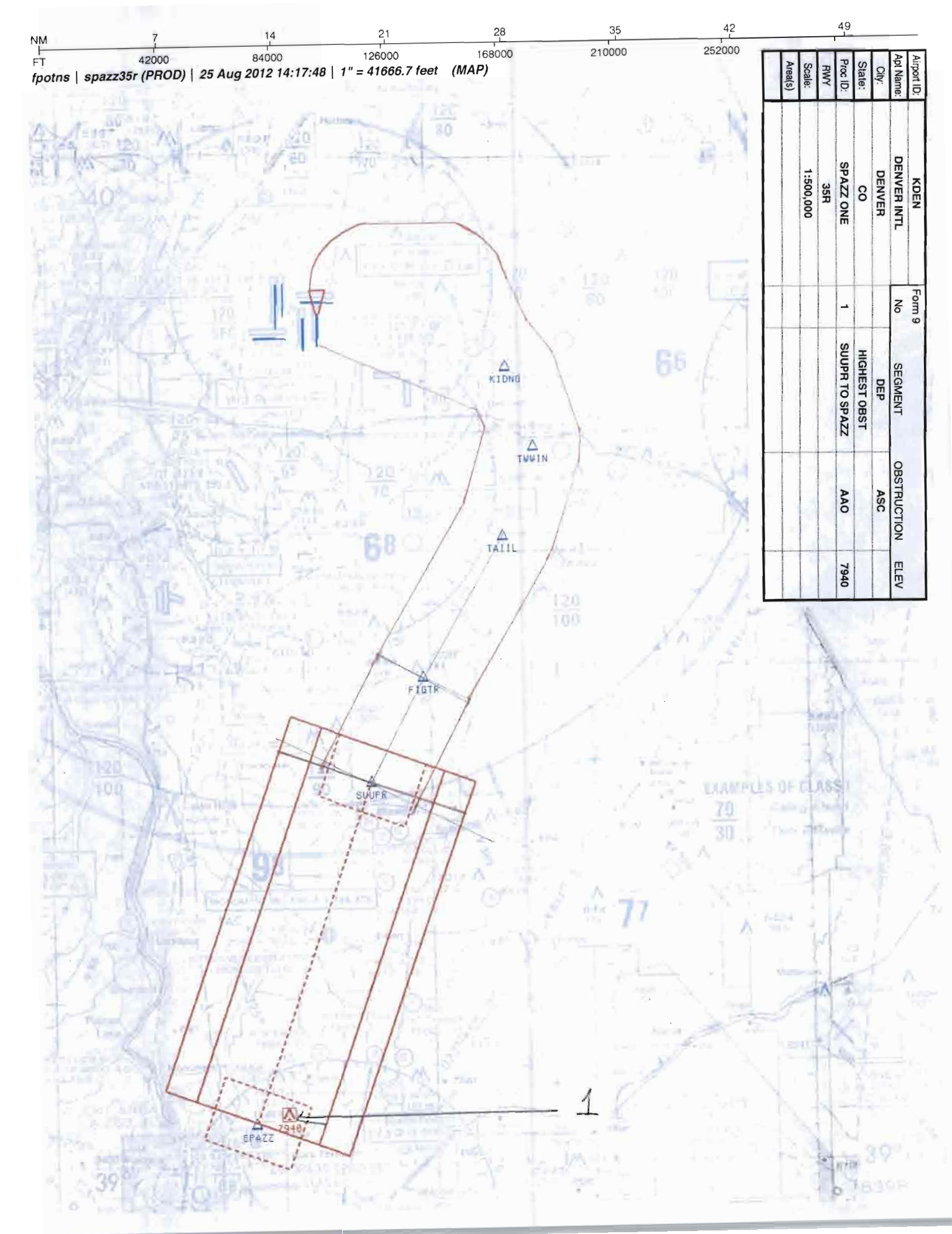

NM 7 14 21 28 35 42 49
FT 42000 84000 126000 168000 210000 252000 294000
fpotns | spazz35l (PROD) | 25 Aug 2012 13:39:49 | 1" = 41666.7 feet (MAP)
Airport ID: KDEN
Apt Name: DENVER INTL
City: DENVER
State: CO
Proc ID: SPAZZ ONE
RWY 35L
Scale: 1:500,000
Area(s)
Form 9
No 1
SEGMENT DEP
OBSTRUCTION HIGHEST OBST SUUPR TO SPAZZ
ASC AAO
ELEV 7940
KIDNG
TWWIN
TAIIL
FIGTR
SUUPR
7946
SPAZZ
1

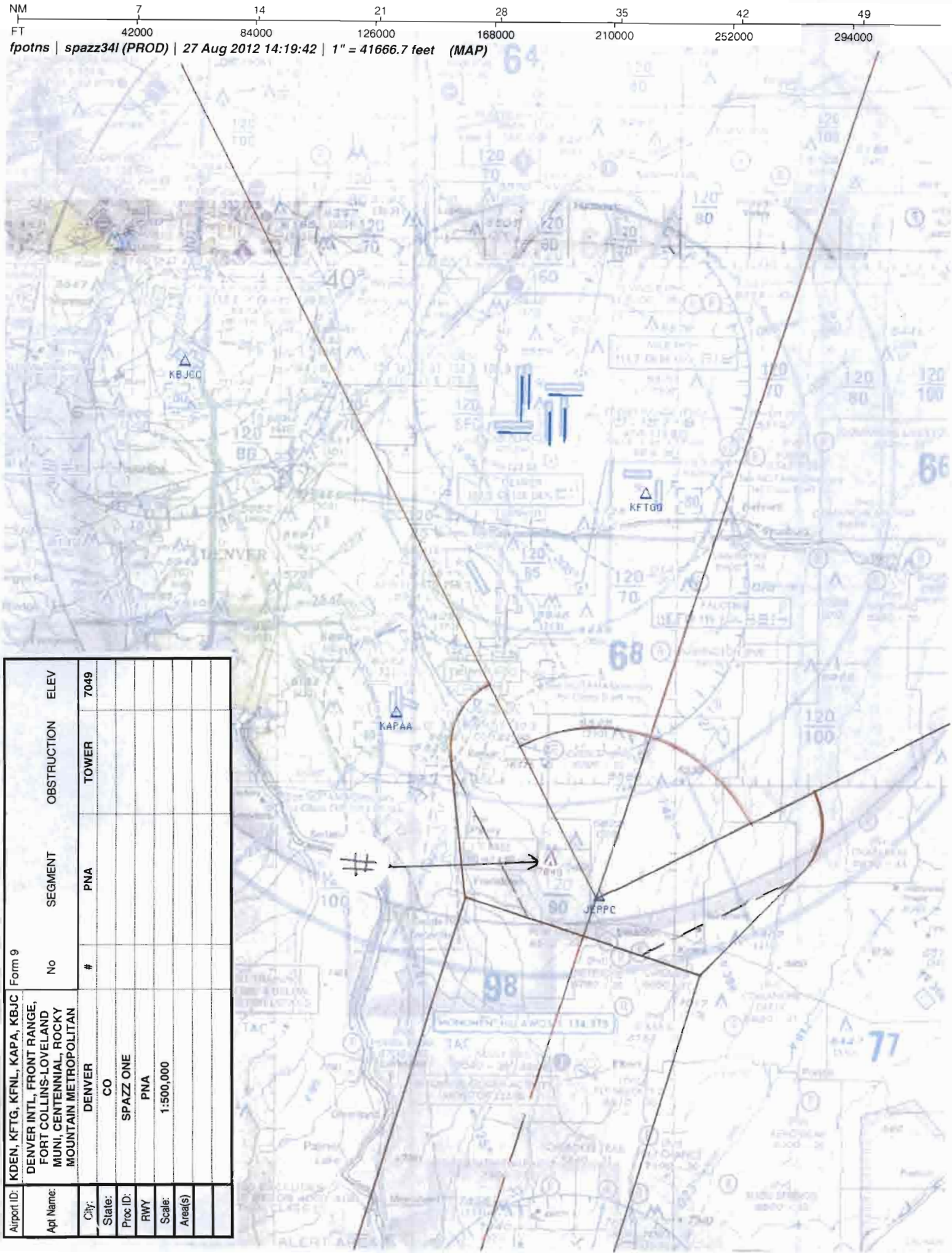


Airport ID:	KDEN	Form 9			
Apt Name:	DENVER INTL	No	SEGMENT	OBSTRUCTION	ELEV
City:	DENVER		ICA	ASC	
State:	CO				
Proc ID:	SPAZZ ONE				
RWY:	35L				
Scale:	1:100,000				
Area(s)					



Airport ID:	KDEN	Form 9			
Apt Name:	DENVER INTL	No	SEGMENT	OBSTRUCTION	ELEV
City:	DENVER		ICA	ASC	
State:	CO				
Proc ID:	SPAZZ ONE				
RWY	35R				
Scale:	1:100,000				
Area(s)					


NM
7
14
21
28
35
42
49
FT
42000
84000
126000
168000
210000
252000
fpotns | spazz35r (PROD) | 25 Aug 2012 14:17:48 | 1" = 41666.7 feet (MAP)
Airport ID: KDEN
Apt Name: DENVER INTL
City: DENVER
State: CO
Proc ID: SPAZZ ONE
RWY 35R
Scale: 1:500,000
Area(s)
Form 9 No 1
SEGMENT DEP
HIGHEST OBST SUUPR TO SPAZZ
OBSTRUCTION AAO ASC
ELEV 7940
KIDNO
TWWIN
TAIIL
FIGTR
SUUPR
7940
SPAZZ
1

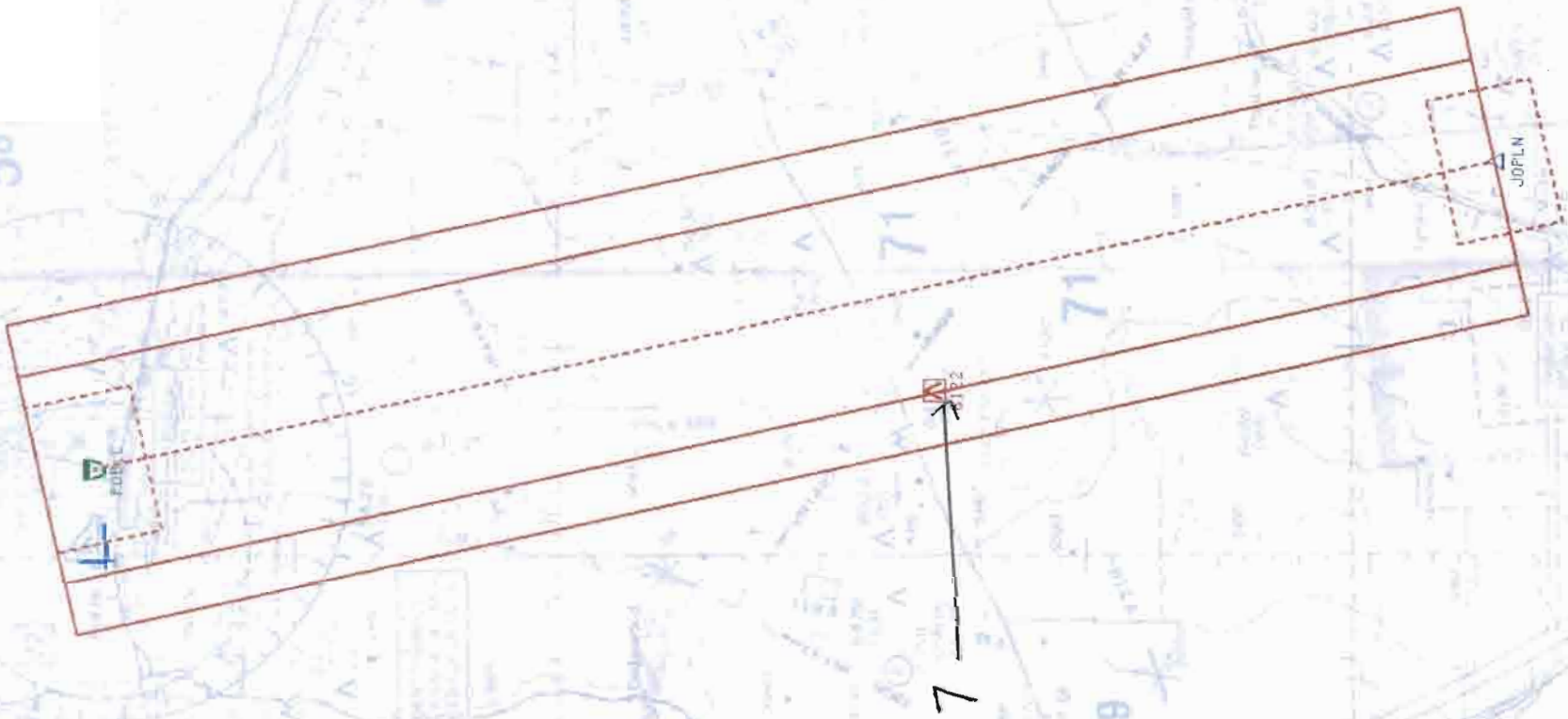


Airport ID:	KDEN, KFTG, KFNL, KAPA, KBJC	Form 9				
Apt Name:	DENVER INTL, FRONT RANGE, FORT COLLINS-LOVELAND MUNI, CENTENNIAL, ROCKY MOUNTAIN METROPOLITAN	No	SEGMENT	OBSTRUCTION		ELEV
		#	PNA	TOWER		7049
City:	DENVER					
State:	CO					
Proc ID:	SPAZZ ONE					
RWY	PNA					
Scale:	1:500,000					
Area(s)						

Airport ID:	KDEN
Apt Name:	DENVER INTL
City:	DENVER
State:	CO
Proc ID:	SPAZZ ONE
RWY	PUB TO TBE
Scale:	1:500,000
Area(s)	

Form 9

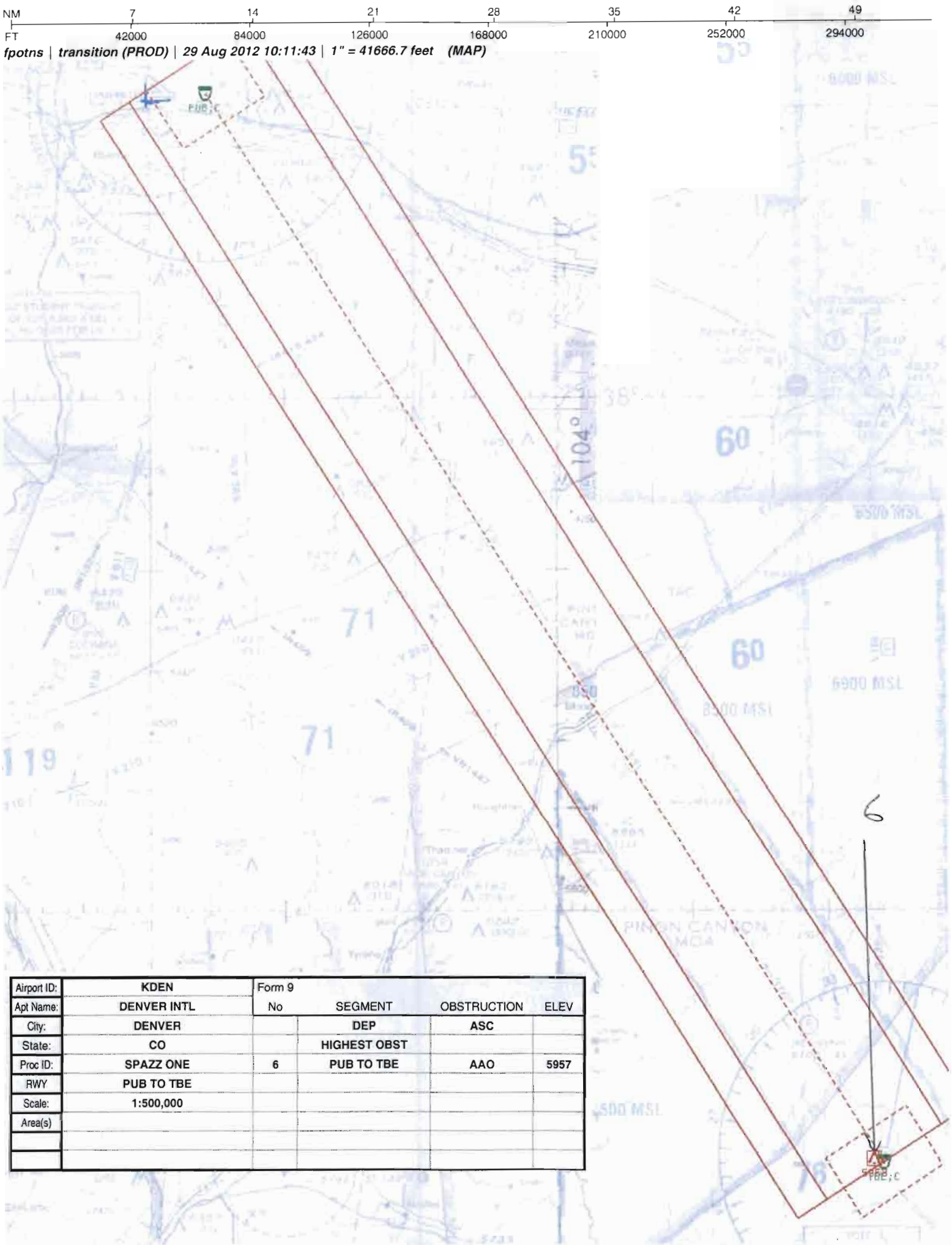
No	SEGMENT	OBSTRUCTION	ELEV
	DEP	ASC	
	HIGHEST OBST		
7	PUB TO JOPLN	AAO	6122



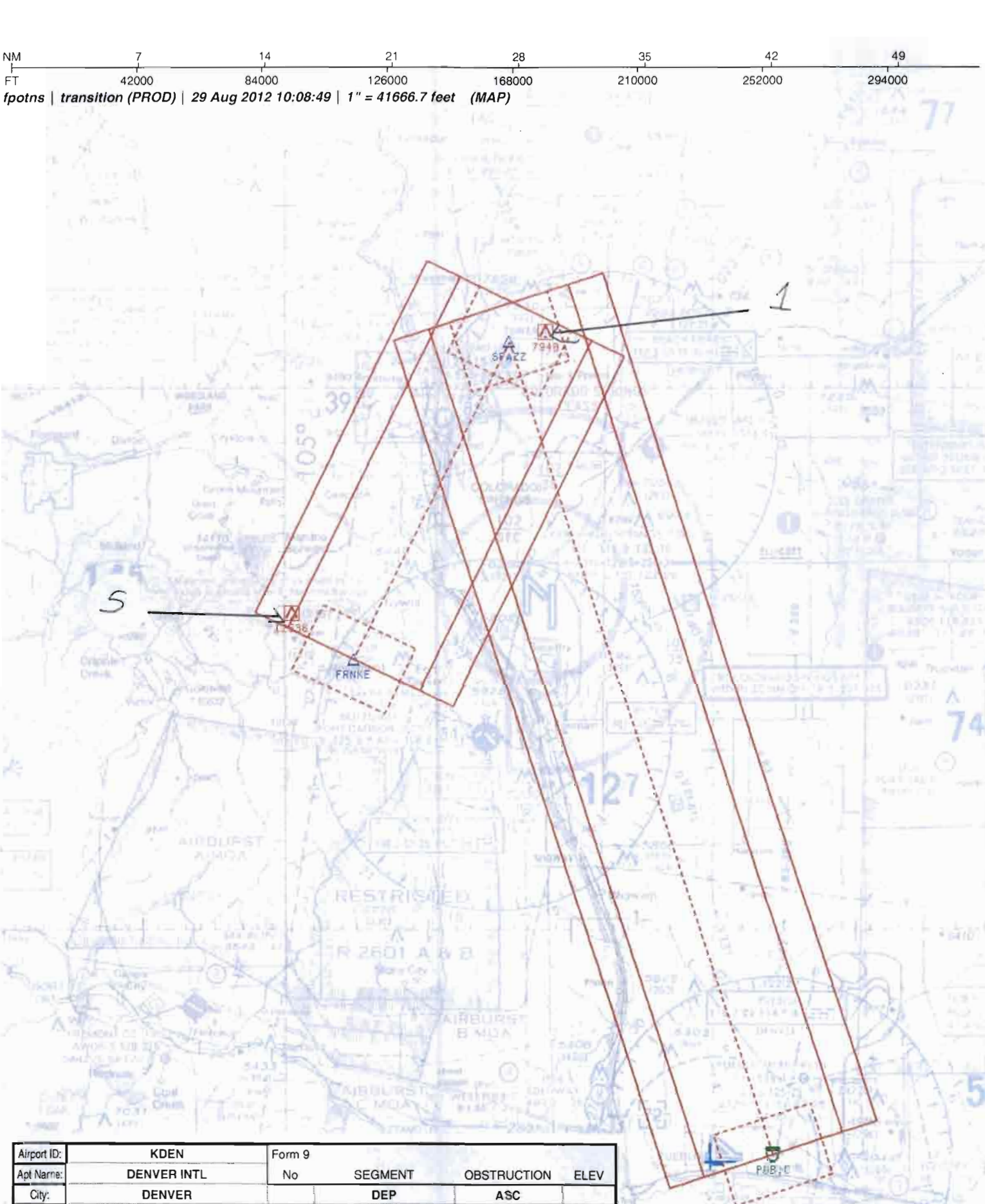
NM 49 42 35 28 21 14 7

FT 294000 252000 210000 168000 126000 84000 42000

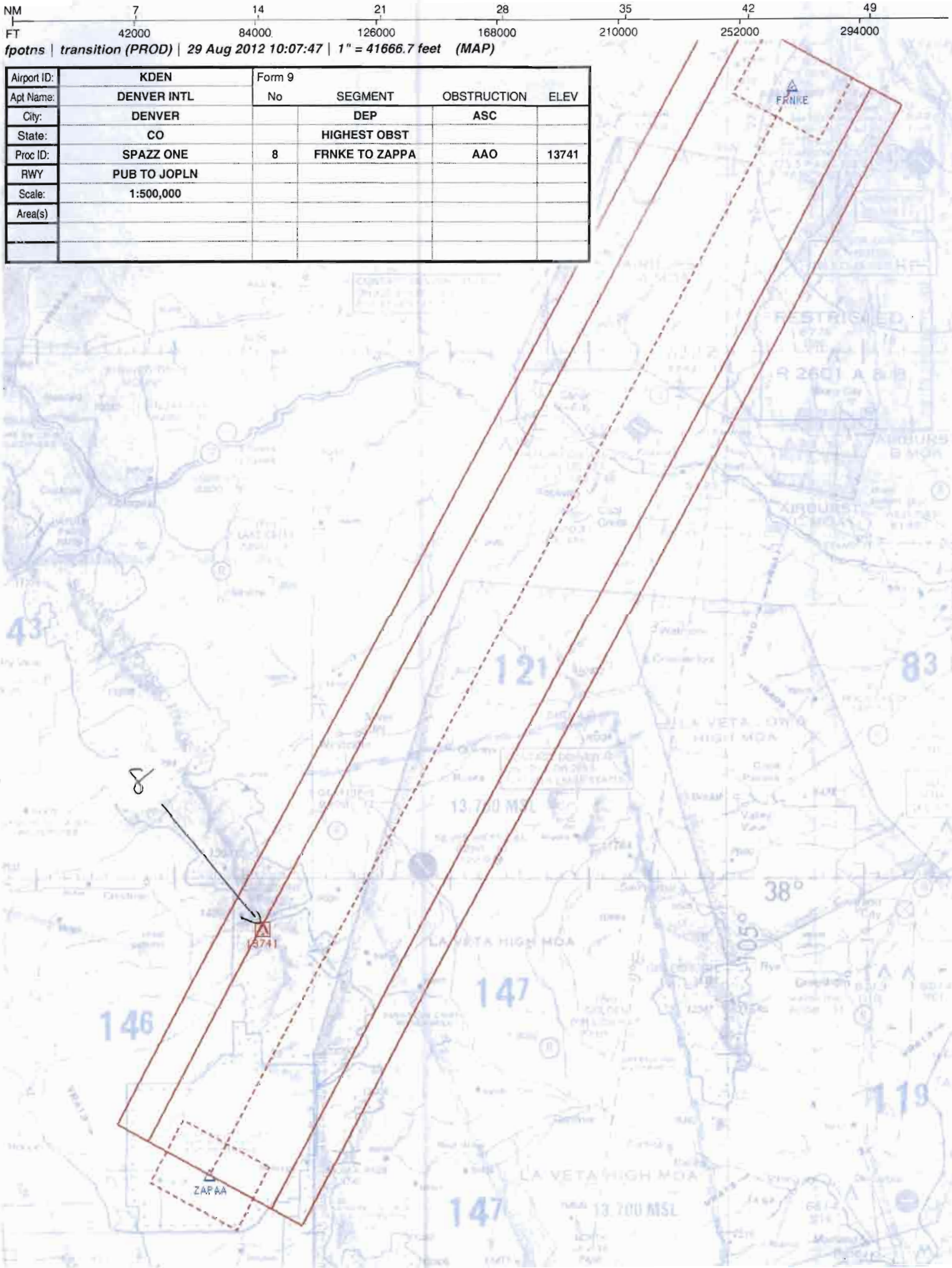
fpotns | transition (PROD) | 29 Aug 2012 10:12:15 | 1" = 41666.7 feet (MAP)



Airport ID:	KDEN	Form 9			
Apt Name:	DENVER INTL	No	SEGMENT	OBSTRUCTION	ELEV
City:	DENVER		DEP	ASC	
State:	CO		HIGHEST OBST		
Proc ID:	SPAZZ ONE	6	PUB TO TBE	AAO	5957
RWY	PUB TO TBE				
Scale:	1:500,000				
Area(s)					



Airport ID:	KDEN	Form 9			
Apt Name:	DENVER INTL	No	SEGMENT	OBSTRUCTION	ELEV
City:	DENVER		DEP	ASC	
State:	CO		HIGHEST OBST		
Proc ID:	SPAZZ ONE	1	SPAZZ TO PUB	AAO	7940
RWY	SPAZZ TO PUB/SPAZZ TO FRNKE	5	SPAZZ TO FRNKE	AAO	12567
Scale:	1:500,000				
Area(s)					


NM 7 14 21 28 35 42 49
FT 42000 84000 126000 168000 210000 252000 294000
fpotns | transition (PROD) | 29 Aug 2012 10:07:47 | 1" = 41666.7 feet (MAP)
Airport ID: KDEN
Apt Name: DENVER INTL
City: DENVER
State: CO
Proc ID: SPAZZ ONE
RWY PUB TO JOPLN
Scale: 1:500,000
Area(s)
Form 9
No SEGMENT OBSTRUCTION ELEV
DEP ASC
HIGHEST OBST
8 FRNKE TO ZAPPA AAO 13741
FRNKE
13741
ZAPAA
LA VETA HIGH MOA
13,700 MSL
105°
38°

U.S. DEPARTMENT of TRANSPORTATION – FEDERAL AVIATION ADMINISTRATION

GRAPHIC DEPARTURE PROCEDURE (DP)

Bearings, headings, courses, tracks, and radials are magnetic. Elevation and altitudes are in feet MSL. Altitudes are minimum altitudes unless otherwise indicated. Ceilings are in feet above airport elevation. Distances are in nautical miles. Visibilities are in statue miles or feet RVR unless otherwise indicated. Graphic depictions attached.

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
SPAZZ	ONE	SPAZZ1.SPAZZ	NONE		

TYPE: RNAV SID

DP ROUTE DESCRIPTION:

DENVER INTL:

TAKEOFF RWY 8: CLIMB HEADING 082.53 TO INTERCEPT COURSE 105.72 TO CROSS KIDNG AT OR BELOW 10000, THEN ON TRACK 153.76 TO TWWIN, THEN ON TRACK 191.56 TO TAIIL, THEN ON TRACK 202.01 TO CROSS FIGTR AT OR ABOVE 14000, THEN ON TRACK 199.28 TO CROSS SUUPR AT OR ABOVE 16000, THEN ON TRACK 191.84 TO CROSS SPAZZ AT OR BELOW FL230. THENCE...

TAKEOFF RWY 16L: CLIMB HEADING 172.51 TO INTERCEPT COURSE 149.26 TO CROSS RAYDR AT OR BELOW 10000, THEN ON TRACK 156.79 TO CROSS JETAG AT OR BELOW 12000, THEN ON TRACK 181.95 TO JEPPC, THEN ON TRACK 189.92 TO CROSS SPAZZ AT OR BELOW FL230. THENCE...

TAKEOFF RWY 16R: CLIMB HEADING 172.51 TO INTERCEPT COURSE 145.71 TO CROSS RAYDR AT OR BELOW 10000, THEN ON TRACK 156.79 TO CROSS JETAG AT OR BELOW 12000, THEN ON TRACK 181.95 TO JEPPC, THEN ON TRACK 189.92 TO CROSS SPAZZ AT OR BELOW FL230. THENCE...

TAKEOFF RWY 17L: CLIMB HEADING 172.54 TO INTERCEPT COURSE 156.71 TO CROSS RAYDR AT OR BELOW 10000, THEN ON TRACK 156.79 TO CROSS JETAG AT OR BELOW 12000, THEN ON TRACK 181.95 TO JEPPC, THEN ON TRACK 189.92 TO CROSS SPAZZ AT OR BELOW FL230. THENCE...

TAKEOFF RWY 17R: CLIMB HEADING 172.53 TO INTERCEPT COURSE 151.82 TO CROSS RAYDR AT OR BELOW 10000, THEN ON TRACK 156.79 TO CROSS JETAG AT OR BELOW 12000, THEN ON TRACK 181.95 TO JEPPC, THEN ON TRACK 189.92 TO CROSS SPAZZ AT OR BELOW FL230. THENCE...

TAKEOFF RWY 25: CLIMB HEADING 262.51 AT OR BELOW 230 KIAS TO INTERCEPT COURSE 243.69 TO CROSS BRKEM AT OR BELOW 10000, THEN ON TRACK 221.03 TO NMBSS, THEN ON TRACK 181.40 TO CROSS LENNN AT OR ABOVE 10000 AT OR BELOW 280 KIAS, THEN ON TRACK 161.46 TO TIKLR, THEN ON TRACK 143.63 TO CROSS CIROS AT OR ABOVE 14000, THEN ON TRACK 150.32 TO CROSS ICECI AT OR ABOVE 16000, THEN ON TRACK 169.25 TO CROSS SPAZZ AT OR BELOW FL230. THENCE...

TAKEOFF RWY 34L: CLIMB HEADING 352.51 TO 5934 AT/BELOW 230 KIAS, THEN CLIMBING LEFT TURN DIRECT TO CROSS BRKEM AT OR BELOW 10000, THEN ON TRACK 221.03 TO NMBSS, THEN ON TRACK 181.40 TO CROSS LENNN AT OR ABOVE 10000 AT OR BELOW 280 KIAS, THEN ON TRACK 161.46 TO TIKLR, THEN ON TRACK 143.63 TO CROSS CIROS AT OR ABOVE 14000, THEN ON TRACK 150.32 TO CROSS ICECI AT OR ABOVE 16000, THEN ON TRACK 169.25 TO CROSS SPAZZ AT OR BELOW FL230. THENCE...

TAKEOFF RWY 34R: CLIMB HEADING 352.51 TO 5934 AT OR BELOW 230 KIAS, THEN CLIMBING LEFT TURN DIRECT TO CROSS BRKEM AT OR BELOW 10000, THEN ON TRACK 221.03 TO NMBSS, THEN ON TRACK 181.40 TO CROSS LENNN AT OR ABOVE 10000 AT OR BELOW 280 KIAS, THEN ON TRACK 161.46 TO TIKLR, THEN ON TRACK 143.63 TO CROSS CIROS AT OR ABOVE 14000, THEN ON TRACK 150.32 TO CROSS ICECI AT OR ABOVE 16000, THEN ON TRACK 169.25 TO CROSS SPAZZ AT OR BELOW FL230. THENCE...

TAKEOFF RWY 35L: CLIMB HEADING 352.53 TO 5934, THEN CLIMBING RIGHT TURN DIRECT TO CROSS KIDNG AT OR BELOW 10000, THEN ON TRACK 153.76 TO TWWIN, THEN ON TRACK 191.56 TO TAIIL, THEN ON TRACK 202.01 TO CROSS FIGTR AT OR ABOVE 14000, THEN ON TRACK 199.28 TO CROSS SUUPR AT OR ABOVE 16000, THEN ON TRACK 191.84 TO CROSS SPAZZ AT OR BELOW FL230. THENCE...

TAKEOFF RWY 35R: CLIMB HEADING 352.54 TO 5934, THEN CLIMBING RIGHT TURN DIRECT TO CROSS KIDNG AT OR BELOW 10000, THEN ON TRACK 153.76 TO TWWIN, THEN ON TRACK 191.56 TO TAIIL, THEN ON TRACK 202.01 TO CROSS FIGTR AT OR ABOVE 14000, THEN ON TRACK 199.28 TO CROSS SUUPR AT OR ABOVE 16000, THEN ON TRACK 191.84 TO CROSS SPAZZ AT OR BELOW FL230. THENCE...

...AS DEPICTED. MAINTAIN FL230 OR FILED LOWER ALTITUDE. EXPECT HIGHER FILED ALTITUDE TEN MINUTES AFTER DEPARTURE.

CENTENNIAL:

TAKEOFF RWY 17L /17R, CLIMB HEADING 169.95 TO 6400, THEN CONTINUE CLIMB HEADING 169.95 OR AS ASSIGNED BY ATC, THENCE...

TAKEOFF RWY 35L /35R, CLIMB HEADING 349.95 TO 6400, THEN CONTINUE CLIMB HEADING 349.95 OR AS ASSIGNED BY ATC, THENCE...

QUALITY CHECKED

GRAPHIC DEPARTURE PROCEDURE (DP)

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DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
SPAZZ	ONE	SPAZZ1.SPAZZ	NONE		

...EXPECT RADAR VECTORS TO JEPPC, THEN AS DEPICTED. MAINTAIN FL230 OR FILED LOWER ALTITUDE, EXPECT HIGHER FILED ALTITUDE 10 MINUTES AFTER DEPARTURE.

ROCKY MOUNTAIN METROPOLITAN:
TAKEOFF RWY 11L, 11R: CLIMB HEADING BETWEEN 150 CCW 350 AS ASSIGNED BY ATC. THENCE...

TAKEOFF RWY 29L, 29R, CLIMBING RIGHT TURN HEADING BETWEEN 350 CW 113 AS ASSIGNED BY ATC. THENCE...

...EXPECT RADAR VECTORS TO JEPPC, THEN AS DEPICTED. MAINTAIN FL230 OR FILED LOWER ALTITUDE, EXPECT HIGHER FILED ALTITUDE 10 MINUTES AFTER DEPARTURE.

FORT COLLINS-LOVELAND MUNI:
TAKEOFF RWY 15, CLIMB HEADING BETWEEN 180 CCW 350 AS ASSIGNED BY ATC. THENCE...

TAKEOFF RWY 33, CLIMBING RIGHT TURN HEADING BETWEEN 350 CW 150 AS ASSIGNED BY ATC. THENCE...

...EXPECT RADAR VECTORS TO JEPPC, THEN AS DEPICTED. MAINTAIN FL230 OR FILED LOWER ALTITUDE, EXPECT HIGHER FILED ALTITUDE 10 MINUTES AFTER DEPARTURE.

FRONT RANGE:
TAKEOFF RWY 8: CLIMB HEADING 083.15 TO 6020, THEN CONTINUE CLIMB HEADING 083.15 OR AS ASSIGNED BY ATC, THENCE...

TAKEOFF RWY 17: CLIMB HEADING 171.99 TO 6020, THEN CONTINUE CLIMB HEADING 171.99 OR AS ASSIGNED BY ATC, THENCE...

TAKEOFF RWY 26: CLIMB HEADING 263.17 TO 6020, THEN CONTINUE CLIMB HEADING 263.17 OR AS ASSIGNED BY ATC, THENCE...

TAKEOFF RWY 35: CLIMB HEADING 351.99 TO 6020, THEN CONTINUE CLIMB HEADING 351.99 OR AS ASSIGNED BY ATC, THENCE...

...EXPECT RADAR VECTORS TO JEPPC, THEN AS DEPICTED. MAINTAIN FL230 OR FILED LOWER ALTITUDE, EXPECT HIGHER FILED ALTITUDE 10 MINUTES AFTER DEPARTURE.

TRANSITION ROUTES (GRAPHIC DEPICTION ONLY):

Transition Name	Transition Computer Codes	From FIX/NAVAID	To FIX/NAVAID	Course	Distance	MEA	MOCA	Crossing Altitudes/Fixes
JOPLN	SPAZZ1.JOPLN	SPAZZ	PUB VORTAC	154.08	47.22			
		PUB	JOPLN	159.52	54.23			
TOBE	SPAZZ1.TBE	SPAZZ	PUB VORTAC	154.08	47.22			
		PUB	TBE VOR/DME	139.30	73.54			
ZAPAA	SPAZZ1.ZAPAA	SPAZZ	FRNKE	197.94	19.51			AT/ABOVE FL230
		FRNKE	ZAPAA	200.55	70.15			

GRAPHIC DEPARTURE PROCEDURE (DP)

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DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
SPAZZ	ONE	SPAZZ1.SPAZZ	NONE		

PROCEDURAL DATA NOTES/TAKEOFF MINIMUMS:

NOTE: DME/DME/IRU OR GPS REQUIRED.
NOTE: RNAV 1
NOTE: TURBOJETS ONLY.
NOTE: ACCELERATE TO AT OR ABOVE 250 KNOTS ABOVE 10000. IF SLOWER SPEED IS REQUIRED TO MEET CROSSING RESTRICTIONS, ADVISE ATC PRIOR TO DEPARTURE.
NOTE: DENVER INTL AIRPORT – TAKEOFF RWY 8, 16L, 16R, 17L, 17R, 25, 34L, 34R, 35L, 35R – RADAR REQUIRED FOR NON-GPS EQUIPPED AIRCRAFT.
NOTE: ZAPAA TRANSITION: FOR NON-GPS EQUIPPED AIRCRAFT PUB AND ALS DME'S MUST BE OPERATIONAL.
NOTE: CENTENNIAL AIRPORT, ROCKY MOUNTAIN METROPOLITAN AIRPORT, FT COLLINS-LOVELAND MUNICIPAL AIRPORT AND FRONT RANGE AIRPORT - RADAR REQUIRED. TAKEOFF MINIMUMS.

DENVER INTL:
RWYS 7, 26 - NA ATC
RWY 8, STANDARD WITH MINIMUM CLIMB OF 475 FT PER NM TO 5934, THEN MINIMUM CLIMB OF 275 FT PER NM TO 16000
RWY16L, 16R, STANDARD WITH MINIMUM CLIMB OF 325 FT PER NM TO 10000
RWY17L, 17R, STANDARD WITH MINIMUM CLIMB OF 350 FT PER NM TO 5934, THEN MINIMUM CLIMB OF 250 FT PER NM TO 15000
RWY25, STANDARD WITH MINIMUM CLIMB OF 410 FT PER NM TO 9000, THEN MINIMUM CLIMB OF 285 FT PER NM TO 16000
RWY 34L, STANDARD WITH MINIMUM CLIMB OF 410 FT PER NM TO 8000, THEN MINIMUM CLIMB OF 285 FT PER NM TO 15000
RWY 34R, STANDARD WITH MINIMUM CLIMB OF 410 FT PER NM TO 5934, THEN MINIMUM CLIMB OF 285 FT PER NM TO 15000
RWY 35L, STANDARD WITH MINIMUM CLIMB OF 450 FT PER NM TO 5934, THEN MINIMUM CLIMB OF 280 FT PER NM TO 15000
RWY 35R, STANDARD WITH MINIMUM CLIMB OF 410 FT PER NM TO 5934, THEN MINIMUM CLIMB OF 260 FT PER NM TO 16000

CENTENNIAL:
RWY 10, 28, NA – ATC
RWY 35L,35R, STANDARD
RWY 17L, STANDARD WITH MINIMUM CLIMB OF 255 FT PER NM TO 8000.
RWY 17R, STANDARD WITH MINIMUM CLIMB OF 370 FT PER NM TO 8000.

ROCKY MOUNTAIN METROPOLITAN:
RWY 2, 20, NA – ATC
RWY 11R, 11L, 29R, STANDARD.
RWY 29L, 300-1 OR STANDARD WITH MINIMUM CLIMB OF 405 FT PER NM TO 5900.

FORT COLLINS-LOVELAND MUNI:
RWY 6, 24, NA – VFR RUNWAY.
RWY 15, 33, STANDARD.

FRONT RANGE:
RWY 8, 17, 26, 35, STANDARD.

TAKEOFF OBSTACLES NOTES:

DENVER INTL:
NOTE: RWY 16L, MULTIPLE SIGNS BEGINNING 126 FT FROM DER, 490 FT LEFT OF CENTERLINE, UP TO 7 FT AGL/5359 FT MSL. COMMUNICATION TWR 4749 FT FROM DER, 1358 FT LEFT OF CENTERLINE, 107 FT AGL/5478 FT MSL. NOTE: RWY 25, SIGN 48 FT FROM DER, 450 FT RIGHT OF CENTERLINE, 6 FT AGL/5354 FT MSL.

ROCKY MOUNTAIN METROPOLITAN:
NOTE: RWY 29L: TERRAIN BEGINNING 23 FT FROM DER, 28 FT LEFT OF CENTERLINE, UP TO 5708 FT MSL. FENCE 982 FT FROM DER, 303 FT LEFT OF CENTERLINE, 14 FT AGL/5714 FT MSL. FENCE 1015 FT FROM DER, 392 FT LEFT OF CENTERLINE, 15 FT AGL/5725 FT MSL. MULTIPLE TREES BEGINNING 687 FT FROM DER, 615 FT RIGHT OF CENTERLINE UP TO 70 FT AGL/5839 FT MSL. TREE 3196 FT FROM DER, 1337 FT LEFT OF CENTERLINE, 70 FT AGL/5839 FT MSL.

GRAPHIC DEPARTURE PROCEDURE (DP)

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DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
SPAZZ	ONE	SPAZZ1.SPAZZ	NONE		

CENTENNIAL:
NOTE: RWY 17L, TREES BEGINNING 2968 FT FROM DER, 761 FT RIGHT OF CENTERLINE, UP TO 100 FT AGL/5976 FT MSL.
NOTE: RWY 17R, TERRAIN 181 FT FROM DER, 496 FT RIGHT OF CENTERLINE, 5887 FT MSL. FENCE 538 FT FROM DER, 196 FT RIGHT OF CENTERLINE, 8 FT AGL/5886 FT MSL. TREES BEGINNING 562 FT FROM DER, 61 FT RIGHT OF CENTERLINE, UP TO 16 FT AGL/5976 FT MSL. MULTIPLE LIGHT POLES BEGINNING 2362 FT FROM DER, 256 FT RIGHT OF CENTERLINE, UP TO 30 FT AGL/5942 FT MSL. OBSTRUCTION LIGHT ON BUILDING 3282 FT FROM DER, 842 FT RIGHT OF CENTERLINE, 90 FT AGL/6021 FT MSL.

FORT COLLINS-LOVELAND MUNI:
NOTE: RWY 33, TREES BEGINNING 833 FT FROM DER, 516 FT RIGHT OF CENTERLINE, UP TO 66 FT AGL/5025 FT MSL. MULTIPLE POLES BEGINNING 567 FT FROM DER, 540 FT LEFT OF CENTERLINE, UP TO 26 FT AGL/4995 FT MSL.

FRONT RANGE:
NOTE: RWY 17, POLE 3618 FT FROM DER, 516 FT LEFT OF CENTERLINE, 43 FT AGL/5603 FT MSL.
NOTE: RWY 26, TREES BEGINNING 98 FT FROM DER, 456 FT RIGHT OF CENTERLINE, UP TO 50 FT AGL/5489 FT MSL.

CONTROLLING OBSTACLES:

CENTENNIAL:
RWY 17L: 6559 FT MSL AAO 392953.93N/1045044.26.
RWY 17R: 6021 FT MSL OBS LT ON BLDG 393302.52N/1045119.43W, 6559 FT MSL AAO 392953.93N/1045044.26W.
ROCKY MOUNTAIN METROPOLITAN:
RWY 29L: 5839 FT MSL TREE 395457.98N/1050837.12W.
DENVER INTL:
RWY 16L/R, 17L/R, 25, 34L/R, 35L/R: 13494 FT MSL AAO 395114.70N/1054121.90W

LOST COMMUNICATIONS PROCEDURES:

ADDITIONAL FLIGHT DATA:

REFRENCE MAG VAR: KDEN 8E EPOCH YR: 2015 DME/DME ASSESSMENT: SAT (RNP 2.0)
PILOT NAV AREA:
10 NM ARC CENTERED ON JEPPC, CW FROM POINT A (BEARING 144.92 DEGREES TO JEPPC) TO POINT B (BEARING 234.92 DEGREES TO JEPPC), MINIMUM ALTITUDE - 10000.

AIRPORTS SERVED:

DENVER INTL	DENVER , CO
ROCKY MOUNTAIN METROPOLITAN	DENVER, CO
CENTENNIAL	DENVER, CO
FRONT RANGE	DENVER, CO
FORT COLLINS-LOVELAND MUNI	FORT COLLINS/LOVELAND, CO

QUALITY CHECKED

GRAPHIC DEPARTURE PROCEDURE (DP)

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DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
SPAZZ	ONE	SPAZZ1.SPAZZ	NONE		

COMMUNICATIONS:

DENVER INTL: CLNC DEL, ATIS, DEP CON
CENTENNIAL: CLNC DEL, ATIS, DEP CON
ROCKY MOUNTAIN METROPOLITAN: CLNC DEL, ATIS, DEP CON
FORT COLLINS - LOVELAND MUNI: DEP CON
FRONT RANGE: CLNC DEL, ATIS, DEP CON

FIXES AND/OR NAVAIDS:

REMARKS:

CLIMB GRADIENTS AT CENTENNIAL OFF RWY 17L/R ARE OBSTACLE DRIVEN WITH THE CLIMB TO ALTITUDE DETERMINED BY LOCATION OF 8000 MVA AND PROXIMITY TO HIGHER MVA'S.

DENVER INTL CLIMB GRADIENTS ARE FOR FMS ENGAGEMENT AT SPECIFIC LOCATIONS AND FOR TRANSITON CROSSING ALTITUDES.

THE AIRLINE INDUSTRY HAS REQUESTED THAT BLOCK ALTITUDES NOT BE PUBLISHED ON THE PROCEDURE, WAIVER SUBMITTED TO REMOVE AT/ABOVE ALTITUDES ASSOCIATED WITH CROSS AT OR BELOW ALTITUDES.

KBJC RWY 11L/R AND 29 L/R FLIGHT TRACK DISTANCE TO SPAZZ PNA BOUNDRY 58 NM PER ATC.
KAPA RWY 17L/R FLIGHT TRACK DISTANCE TO SPAZZ PNA BOUNDRY 32 NM PER ATC.
KAPA RWY 35 L/R FLIGHT TRACK DISTANCE TO SPAZZ PNA BOUNDRY 36 NM PER ATC.
KFNL RWY 15 AND 33 FLIGHT TRACK DISTANCE TO SPAZZ PNA BOUNDRY 78 NM PER ATC.
KFTG RWY 8/26 AND 17/35 FLIGHT TRACK DISTANCE TO SPAZZ PNA BOUNDRY 33 NM PER ATC.
KDEN RWY 8 FLIGHT TRACK DISTANCE TO SPAZZ PNA BOUNDRY 51 NM PER ATC.

QUALITY CHECKED

U.S. DEPARTMENT of TRANSPORTATION – FEDERAL AVIATION ADMINISTRATION

GRAPHIC DEPARTURE PROCEDURE (DP)

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DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
SPAZZ	ONE	SPAZZ1.SPAZZ	NONE		

REQUIRED EFFECTIVE DATE:

FLIGHT INSPECTED BY:
JAMES M. MEEK — FIFO — 10/18/12

DEVELOPED BY:
TRACEY STILES — AJV-354 — 8/02/12

APPROVED BY:
DEZ SILAGYI — AJV-354

COORDINATED WITH:
ATA, ALPA, APA, AOPA, NBAA, ZDV, DEN ATCT, DEN APP CON, CO AERO MGR, APT MGR'S

CHANGES:

REASONS:

11/28/12: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 10/03/12.
1. REMOVED GND CON AND TWR FROM COMMUNICATIONS ON EACH AIRPORT PER ATC REQUEST.
2. ADDED DENVER INTL AIRPORT AND TAKEOFF RWY 8, 16L, 16R, 17L, 17R, 25, 34L, 34R, 35L, 35R, TO NOTE: RADAR REQUIRED FOR NON-GPS EQUIPPED AIRCRAFT.
3. ON THE 8260-15C, PAGE 5, UPDATED CORRECTED SPELLING OF ZAPPA TO ZAPAA.

QUALITY CHECK

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
SPAZZ	ONE	SPAZZ1.SPAZZ	NONE		

FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
DENVER INTL (KDEN)									
RW08 (AER)	395239.20N/1043944.03W	N	-	-	-	-			CG 475 FT PER NM TO 5934
	395237.32N/1043524.94W	-	-	VI	090.53	3.32			CG 275 FT PER NM TO 16000
KIDNG	394837.67N/1042339.58W	Y	FB	CF	113.72	9.90	AT/BELOW 10000		RECOMMENDED NAVAID: DENVER VOR/DME
TWWIN	394340.90N/1042132.89W	Y	FB	TF	161.76	5.20			VI/CF PERMITTED
TAIIL	393816.75N/1042401.83W	Y	FB	TF	199.56	5.73			
FIGTR	392943.58N/1043024.31W	Y	FB	TF	210.01	9.87	AT/ABOVE 14000		
SUUPR	392321.73N/1043438.07W	Y	FB	TF	207.28	7.15	AT/ABOVE 16000		
SPAZZ	390239.07N/1044412.98W	Y	FB	TF	199.84	21.99	AT/BELOW FL230		
RW16L (AER)	395349.33N/1044112.50W	N	-	-	-	-			CG 325 FT PER NM TO 10000
	395003.29N/1044115.12W	-	-	VI	180.51	3.79			RECOMMENDED NAVAID: DENVER VOR/DME
RAYDR	393851.15N/1043510.81W	Y	FB	CF	157.26	12.13	AT/BELOW 10000		VI/CF PERMITTED
JETAG	393330.07N/1043318.02W	Y	FB	TF	164.79	5.54	AT/BELOW 12000		
JEPPC	392333.92N/1043532.85W	Y	FB	TF	189.95	10.08			
SPAZZ	390239.07N/1044412.98W	Y	FB	TF	197.92	21.95	AT/BELOW FL230		
RW16R (AER)	395344.87N/1044145.90W	N	-	-	-	-			CG 325 FT PER NM TO 10000
	394914.50N/1044149.02W	-	-	VI	180.51	4.50			RECOMMENDED NAVAID: DENVER VOR/DME
RAYDR	393851.15N/1043510.81W	Y	FB	CF	153.71	11.57	AT/BELOW 10000		VI/CF PERMITTED
JETAG	393330.07N/1043318.02W	Y	FB	TF	164.79	5.54	AT/BELOW 12000		
JEPPC	392333.92N/1043532.85W	Y	FB	TF	189.95	10.08			
SPAZZ	390239.07N/1044412.98W	Y	FB	TF	197.92	21.95	AT/BELOW FL230		
RW17L (AER)	395153.83N/1043828.70W	N	-	-	-	-			CG 350 FT PER NM TO 5934
	394818.27N/1043831.33W	-	-	VI	180.54	3.59			CG 250 FT PER NM TO 15000
RAYDR	393851.15N/1043510.81W	Y	FB	CF	164.71	9.79	AT/BELOW 10000		RECOMMENDED NAVAID: DENVER VOR/DME
JETAG	393330.07N/1043318.02W	Y	FB	TF	164.79	5.54	AT/BELOW 12000		
JEPPC	392333.92N/1043532.85W	Y	FB	TF	189.95	10.08			
SPAZZ	390239.07N/1044412.98W	Y	FB	TF	197.92	21.95	AT/BELOW FL230		

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
SPAZZ	ONE	SPAZZ1.SPAZZ	NONE		

FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
RW17R (AER)	395140.48N/1043936.56W	N	-	-	-	-			CG 350 FT PER NM TO 5934
	394815.46N/1043939.02W	-	-	VI	180.53	3.41			CG 250 FT PER NM TO 15000
RAYDR	393851.15N/1043510.81W	Y	FB	CF	159.82	10.01	AT/BELOW 10000		RECOMMENDED NAVAID: DENVER VOR/DME
JETAG	393330.07N/1043318.02W	Y	FB	TF	164.79	5.54	AT/BELOW 12000		VI/CF PERMITTED
JEPPC	392333.92N/1043532.85W	Y	FB	TF	189.95	10.08			
SPAZZ	390239.07N/1044412.98W	Y	FB	TF	197.92	21.95	AT/BELOW FL230		
RW25 (AER)	395026.37N/1044102.17W	N	-	-	-	-			CG 410 FT PER NM TO 9000
	395028.15N/1044527.35W	-	-	VI	270.51	3.40		AT/BELOW 230K	CG 285 FT PER NM TO 16000
BRKEM	394850.92N/1045147.63W	Y	FB	CF	251.69	5.14	AT/BELOW 10000		RECOMMENDED NAVAID: DENVER VOR/DME
NMBSS	394642.49N/1045459.23W	Y	FB	TF	229.03	3.26			VI/CF PERMITTED
LENNN	394315.02N/1045543.70W	Y	FB	TF	189.40	3.50	AT/ABOVE 10000	AT/BELOW 280K	
TIKLR	393734.30N/1045421.73W	Y	FB	TF	169.46	5.77			
CIROS	392959.92N/1044905.10W	Y	FB	TF	151.63	8.60	AT/ABOVE 14000		
ICECI	392256.00N/1044527.99W	Y	FB	TF	158.32	7.60	AT/ABOVE 16000		
SPAZZ	390239.07N/1044412.98W	Y	FB	TF	177.25	20.29	AT/BELOW FL230		
RW34L (AER)	395106.79N/1044147.72W	N	-	-	-	-			CG 410 FT PER NM TO 8000
5934 MSL		-	-	VA	000.51	-		AT/BELOW 230K	CG 285 FT PER NM TO 15000
BRKEM	394850.92N/1045147.63W	Y	FB	DF	-	-	AT/BELOW 10000		
NMBSS	394642.49N/1045459.23W	Y	FB	TF	229.03	3.26			
LENNN	394315.02N/1045543.70W	Y	FB	TF	189.40	3.50	AT/ABOVE 10000	AT/BELOW 280K	
TIKLR	393734.30N/1045421.73W	Y	FB	TF	169.46	5.77			
CIROS	392959.92N/1044905.10W	Y	FB	TF	151.63	8.60	AT/ABOVE 14000		
ICECI	392256.00N/1044527.99W	Y	FB	TF	158.32	7.60	AT/ABOVE 16000		
SPAZZ	390239.07N/1044412.98W	Y	FB	TF	177.25	20.29	AT/BELOW FL230		
RW34R (AER)	395150.77N/1044113.88W	N	-	-	-	-			CG 410 FT PER NM TO 5934
5934 MSL		-	-	VA	000.51	-		AT/BELOW 230K	CG 285 FT PER NM TO 15000
BRKEM	394850.92N/1045147.63W	Y	FB	DF	-	-	AT/BELOW 10000		
NMBSS	394642.49N/1045459.23W	Y	FB	TF	229.03	3.26			
LENNN	394315.02N/1045543.70W	Y	FB	TF	189.40	3.50	AT/ABOVE 10000	AT/BELOW 280K	

QUALITY CHECKED

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
SPAZZ	ONE	SPAZZ1.SPAZZ	NONE		

FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
TIKLR	393734.30N/1045421.73W	Y	FB	TF	169.46	5.77			
CIROS	392959.92N/1044905.10W	Y	FB	TF	151.63	8.60	AT/ABOVE 14000		
ICECI	392256.00N/1044527.99W	Y	FB	TF	158.32	7.60	AT/ABOVE 16000		
SPAZZ	390239.07N/1044412.98W	Y	FB	TF	177.25	20.29	AT/BELOW FL230		
RW35L (AER)	394941.93N/1043937.98W	N	-	-	-	-			CG 450 FR PER NM TO 5934
5934 MSL		-	-	VA	000.53	-			CG 280 FT PER NM TO 15000
KIDNG	394837.67N/1042339.58W	Y	FB	DF	-	-	AT/BELOW 10000		
TWWIN	394340.90N/1042132.89W	Y	FB	TF	161.76	5.20			
TAIIL	393816.75N/1042401.83W	Y	FB	TF	199.56	5.73			
FIGTR	392943.58N/1043024.31W	Y	FB	TF	210.01	9.87	AT/ABOVE 14000		
SUUPR	392321.73N/1043438.07W	Y	FB	TF	207.28	7.15	AT/ABOVE 16000		
SPAZZ	390239.07N/1044412.98W	Y	FB	TF	199.84	21.99	AT/BELOW FL230		
RW35R (AER)	394955.27N/1043830.16W	N	-	-	-	-			CG 410 FT PER NM TO 5934
5934 MSL		-	-	VA	000.54	-			CG 260 FT PER NM TO 16000
KIDNG	394837.67N/1042339.58W	Y	FB	DF	-	-	AT/BELOW 10000		
TWWIN	394340.90N/1042132.89W	Y	FB	TF	161.76	5.20			
TAIIL	393816.75N/1042401.83W	Y	FB	TF	199.56	5.73			
FIGTR	392943.58N/1043024.31W	Y	FB	TF	210.01	9.87	AT/ABOVE 14000		
SUUPR	392321.73N/1043438.07W	Y	FB	TF	207.28	7.15	AT/ABOVE 16000		
SPAZZ	390239.07N/1044412.98W	Y	FB	TF	199.84	21.99	AT/BELOW FL230		
CENTENNIAL (KAPA)									
RW17L (AER)	393502.92N/1045105.30W	N	-	-	-	-			CG 255 FT PER NM TO 8000
6400 MSL		-	-	VA	177.95	-			
		-	-	VM	177.95	-			
JEPPC	392333.92N/1043532.85W	Y	FB	DF	-	-			
SPAZZ	390239.07N/1044412.98W	Y	FB	TF	197.92	21.95	AT/BELOW FL230		
RW17R (AER)	393444.34N/1045113.38W	N	-	-	-	-			CG 370 FT PER NM TO 8000
6400 MSL		-	-	VA	177.95	-			

QUALITY CHECKED

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
SPAZZ	ONE	SPAZZ1.SPAZZ	NONE		

FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
		-	-	VM	177.95	-			
JEPPC	392333.92N/1043532.85W	Y	FB	DF	-	-			
SPAZZ	390239.07N/1044412.98W	Y	FB	TF	197.92	21.95	AT/BELOW FL230		
RW35L (AER)	393335.23N/1045110.19W	N	-	-	-	-			
6400 MSL		-	-	VA	357.95	-			
		-	-	VM	357.95	-			
JEPPC	392333.92N/1043532.85W	Y	FB	DF	-	-			
SPAZZ	390239.07N/1044412.98W	Y	FB	TF	197.92	21.95	AT/BELOW FL230		
RW35R (AER)	393324.18N/1045100.74W	N	-	-	-	-			
6400 MSL		-	-	VA	357.95	-			
		-	-	VM	357.95	-			
JEPPC	392333.92N/1043532.85W	Y	FB	DF	-	-			
SPAZZ	390239.07N/1044412.98W	Y	FB	TF	197.92	21.95	AT/BELOW FL230		
ROCKY MOUNTAIN METROPOLITAN (KBJC)									
JEPPC	392333.92N/1043532.85W	Y	FB	IF	-	-			
SPAZZ	390239.07N/1044412.98W	Y	FB	TF	197.92	21.95	AT/BELOW FL230		
FORT COLLINS-LOVELAND MUNI (KFNL)									
JEPPC	392333.92N/1043532.85W	Y	FB	IF	-	-			
SPAZZ	390239.07N/1044412.98W	Y	FB	TF	197.92	21.95	AT/BELOW FL230		
FORT RANGE (KFTG)									
RW08 (AER)	394738.42N/1043354.87W	N	-	-	-	-			
6020 MSL		-	-	VA	091.15	-			
		-	-	VM	091.15	-			
JEPPC	392333.92N/1043532.85W	Y	FB	DF	-	-			
SPAZZ	390239.07N/1044412.98W	Y	FB	TF	197.92	21.95	AT/BELOW FL230		

QUALITY CHECKED

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
SPAZZ	ONE	SPAZZ1.SPAZZ	NONE		

FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
RW17 (AER)	394708.15N/1043127.24W	N	-	-	-	-			
6020 MSL		-	-	VA	179.99	-			
		-	-	VM	179.99	-			
JEPPC	392333.92N/1043532.85W	Y	FB	DF	-	-			
SPAZZ	390239.07N/1044412.98W	Y	FB	TF	197.92	21.95	AT/BELOW FL230		
RW26 (AER)	394736.82N/1043212.43W	N	-	-	-	-			
6020 MSL		-	-	VA	271.17	-			
		-	-	VM	271.17	-			
JEPPC	392333.92N/1043532.85W	Y	FB	DF	-	-			
SPAZZ	390239.07N/1044412.98W	Y	FB	TF	197.92	21.95	AT/BELOW FL230		
RW35 (AER)	394549.10N/1043127.22W	N	-	-	-	-			
6020 MSL		-	-	VA	359.99	-			
		-	-	VM	359.99	-			
JEPPC	392333.92N/1043532.85W	Y	FB	DF	-	-			
SPAZZ	390239.07N/1044412.98W	Y	FB	TF	197.92	21.95	AT/BELOW FL230		
SPAZZ	390239.07N/1044412.98W	Y		IF			AT/BELOW FL230		SPAZZ1.JOPLN
PUB VORTAC	381739.32N/1042546.01W	Y		TF	162.08	47.22			
JOPLN	372437.63N/1041103.71W	Y		TF	167.52	54.23			
SPAZZ	390239.07N/1044412.98W	Y		IF			AT/BELOW FL230		SPAZZ1.TBE
PUB VORTAC	381739.32N/1042546.01W	Y		TF	162.08	47.22			
TBE VOR/DME	371531.17N/1033600.20W	Y		TF	147.30	73.54			
SPAZZ	390239.07N/1044412.98W	Y		IF			AT/BELOW FL230		SPAZZ1.ZAPAA
FRNKE	384505.00N/1045507.39W	Y		TF	205.94	19.51	AT/ABOVE FL230		
ZAPAA	374315.85N/1053722.70W	Y		TF	208.55	70.15			

QUALITY CHECKED

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
SPAZZ RNAV	ONE	SPAZZ1.SPAZZ	NONE		

ARINC PACKET - 424-18 - SID

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                 1         2         3         4         5         6         7         8         9         0         1         2         3
NAVAID  12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAD        PUB   K2011670VTHW N38173932W104254601    N38173932W104254601E0130047592     NARPUEBLO
        SUSAD        TBE   K2011120VDLW N37153117W103360020    N37153117W103360020E0120057251     NARTOBE

                 1         2         3         4         5         6         7         8         9         0         1         2         3
WP      12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAEAENRT   FRNKE K20    W     N38450500W104550739                    E0086     NAR           FRNKE
        SUSAEAENRT   JEPPC K20    W     N39233392W104353285                    E0085     NAR           JEPPC
        SUSAEAENRT   JOPLN K20    W     N37243763W104110371                    E0081     NAR           JOPLN
        SUSAEAENRT   SPAZZ K20    W     N39023907W104441298                    E0086     NAR           SPAZZ
        SUSAEAENRT   ZAPAA K20    W     N37431585W105372270                    E0089     NAR           ZAPAA

                 1         2         3         4         5         6         7         8         9         0         1         2         3
AIRPORT 12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAP KAPAK2AAPA     0     100YHN39341240W104505750E008005885         1800018000C    MNAR    CENTENNIAL

                 1         2         3         4         5         6         7         8         9         0         1         2         3
SEGMENT 12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAP KAPAK2DSPAZZ14RW17B 010         0       VA                    1700        + 06400     18000
        SUSAP KAPAK2DSPAZZ14RW17B 020         0       VM                    1700
        SUSAP KAPAK2DSPAZZ14RW17B 030JEPPCK2EA0E    010DF
        SUSAP KAPAK2DSPAZZ14RW17B 040SPAZZK2EA0EE   010TF                    18990220    - FL230
        SUSAP KAPAK2DSPAZZ14RW35B 010         0       VA                    3500        + 06400     18000
        SUSAP KAPAK2DSPAZZ14RW35B 020         0       VM                    3500
        SUSAP KAPAK2DSPAZZ14RW35B 030JEPPCK2EA0E    010DF
        SUSAP KAPAK2DSPAZZ14RW35B 040SPAZZK2EA0EE   010TF                    18990220    - FL230
        SUSAP KAPAK2DSPAZZ16JOPLN 010SPAZZK2EA0E      IF                                - FL230     18000
        SUSAP KAPAK2DSPAZZ16JOPLN 020PUB  K2D 0V    010TF                    15410472
        SUSAP KAPAK2DSPAZZ16JOPLN 030JOPLNK2EA0EE   010TF                    15950542
        SUSAP KAPAK2DSPAZZ16TBE   010SPAZZK2EA0E      IF                                - FL230     18000
        SUSAP KAPAK2DSPAZZ16TBE   020PUB  K2D 0V    010TF                    15410472
        SUSAP KAPAK2DSPAZZ16TBE   030TBE  K2D 0VE   010TF                    13930735
        SUSAP KAPAK2DSPAZZ16ZAPAA 010SPAZZK2EA0E      IF                                - FL230     18000
        SUSAP KAPAK2DSPAZZ16ZAPAA 020FRNKEK2EA0E    010TF                    19790195    + FL230
        SUSAP KAPAK2DSPAZZ16ZAPAA 030ZAPAAK2EA0EE   010TF                    20060702

                 1         2         3         4         5         6         7         8         9         0         1         2         3
RUNWAY  12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
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QUALITY 1 CHECKED

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
SPAZZ RNAV	ONE	SPAZZ1.SPAZZ	NONE		

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SUSAP KAPAK2GRW17L   0100011700 N39350292W104510530+0900    +17485057930000047100V
SUSAP KAPAK2GRW17R   0070001700 N39344434W104511338+0900    +17517058040000041077V
SUSAP KAPAK2GRW35L   0070003500 N39333523W104511019-0900    +17716058690000037077V
SUSAP KAPAK2GRW35R   0100013500 N39332418W104510074-0900    +17766058850000053100IIAPA1
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QUALITY CHECKED

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
SPAZZ RNAV	ONE	SPAZZ1.SPAZZ	NONE		

ARINC SUMMARY - 424-18 - SID

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	RW17B		010		VA		FB		170.0()		AA 06400	
	RW17B		020		VM		FB		170.0()			
	RW17B	JEPPC	030		DF		FB	1.0				
	RW17B	SPAZZ	040		TF		FB	1.0	189.9()	022.0	AB FL230	
	RW35B		010		VA		FB		350.0()		AA 06400	
	RW35B		020		VM		FB		350.0()			
	RW35B	JEPPC	030		DF		FB	1.0				
	RW35B	SPAZZ	040		TF		FB	1.0	189.9()	022.0	AB FL230	
	JOPLN	SPAZZ	010		IF		FB				AB FL230	
	JOPLN	PUB	020		TF		FB	1.0	154.1()	047.2		
	JOPLN	JOPLN	030		TF		FB	1.0	159.5()	054.2		
	TBE	SPAZZ	010		IF		FB				AB FL230	
	TBE	PUB	020		TF		FB	1.0	154.1()	047.2		
	TBE	TBE	030		TF		FB	1.0	139.3()	073.5		
	ZAPAA	SPAZZ	010		IF		FB				AB FL230	
	ZAPAA	FRNKE	020		TF		FB	1.0	197.9()	019.5	AA FL230	
	ZAPAA	ZAPAA	030		TF		FB	1.0	200.6()	070.2		

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	PUB	N381739.32	W1042546.01	N3817.655	W10425.767
	TBE	N371531.17	W1033600.20	N3715.520	W10336.003
	FRNKE	N384505.00	W1045507.39	N3845.083	W10455.123
	JEPPC	N392333.92	W1043532.85	N3923.565	W10435.548
	JOPLN	N372437.63	W1041103.71	N3724.627	W10411.062
	SPAZZ	N390239.07	W1044412.98	N3902.651	W10444.216
	ZAPAA	N374315.85	W1053722.70	N3743.264	W10537.378
	RW17L	N393502.92	W1045105.30	N3935.049	W10451.088
	RW17R	N393444.34	W1045113.38	N3934.739	W10451.223
	RW35L	N393335.23	W1045110.19	N3933.587	W10451.170
	RW35R	N393324.18	W1045100.74	N3933.403	W10451.012

RUNWAY DATA	RWY	THRESHOLD ELEVATION	TCH
	RW17L	05793	47
	RW17R	05804	41
	RW35L	05869	37
	RW35R	05885	53

QUALITY CHECKED 1

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
SPAZZ RNAV	ONE	SPAZZ1.SPAZZ	NONE		

ARINC PACKET - 424-18 - SID

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                 1         2         3         4         5         6         7         8         9         0         1         2         3
NAVAID  12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
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        SUSAD        PUB   K2011670VTHW N38173932W104254601    N38173932W104254601E0130047592     NARPUEBLO
        SUSAD        TBE   K2011120VDLW N37153117W103360020    N37153117W103360020E0120057251     NARTOBE

                 1         2         3         4         5         6         7         8         9         0         1         2         3
WP      12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAEAENRT   FRNKE K20    W     N38450500W104550739                    E0086     NAR           FRNKE
        SUSAEAENRT   JEPPC K20    W     N39233392W104353285                    E0085     NAR           JEPPC
        SUSAEAENRT   JOPLN K20    W     N37243763W104110371                    E0081     NAR           JOPLN
        SUSAEAENRT   SPAZZ K20    W     N39023907W104441298                    E0086     NAR           SPAZZ
        SUSAEAENRT   ZAPAA K20    W     N37431585W105372270                    E0089     NAR           ZAPAA

                 1         2         3         4         5         6         7         8         9         0         1         2         3
AIRPORT 12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAP KBJCK2ABJC     0     090YHN39543170W105070190E011005673         1800018000C    MNAR    ROCKY MOUNTAIN METROPOLITAN

                 1         2         3         4         5         6         7         8         9         0         1         2         3
SEGMENT 12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAP KBJCK2DSPAZZ14RW11B 010JEPPCK2EA0E       IF                                                  18000
        SUSAP KBJCK2DSPAZZ14RW11B 020SPAZZK2EA0EE   010TF                    18990220    - FL230
        SUSAP KBJCK2DSPAZZ14RW29B 010JEPPCK2EA0E       IF                                                  18000
        SUSAP KBJCK2DSPAZZ14RW29B 020SPAZZK2EA0EE   010TF                    18990220    - FL230
        SUSAP KBJCK2DSPAZZ16JOPLN 010SPAZZK2EA0E       IF                                - FL230     18000
        SUSAP KBJCK2DSPAZZ16JOPLN 020PUB  K2D 0V    010TF                    15410472
        SUSAP KBJCK2DSPAZZ16JOPLN 030JOPLNK2EA0EE   010TF                    15950542
        SUSAP KBJCK2DSPAZZ16TBE   010SPAZZK2EA0E       IF                                - FL230     18000
        SUSAP KBJCK2DSPAZZ16TBE   020PUB  K2D 0V    010TF                    15410472
        SUSAP KBJCK2DSPAZZ16TBE   030TBE  K2D 0VE   010TF                    13930735
        SUSAP KBJCK2DSPAZZ16ZAPAA 010SPAZZK2EA0E       IF                                - FL230     18000
        SUSAP KBJCK2DSPAZZ16ZAPAA 020FRNKEK2EA0E    010TF                    19790195    + FL230
        SUSAP KBJCK2DSPAZZ16ZAPAA 030ZAPAAK2EA0EE   010TF                    20060702

                 1         2         3         4         5         6         7         8         9         0         1         2         3
RUNWAY  12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAP KBJCK2GRW11L   0090001133 N39545505W105074228-1000    +17087056600000041100V
        SUSAP KBJCK2GRW11R   0070021133 N39545110W105075355-1100    +17126056730000040075V
        SUSAP KBJCK2GRW29L   0070022933 N39541212W105063933+1100    +16888055950000041075R
        SUSAP KBJCK2GRW29R   0090002933 N39540495W105060691+1000    +16798055660000052100IIBJC1
```

QUALITY 1 CHECKED

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
SPAZZ RNAV	ONE	SPAZZ1.SPAZZ	NONE		

ARINC SUMMARY - 424-18 - SID

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	RW11B	JEPPC	010		IF		FB					
	RW11B	SPAZZ	020		TF		FB	1.0	189.9()	022.0	AB FL230	
	RW29B	JEPPC	010		IF		FB					
	RW29B	SPAZZ	020		TF		FB	1.0	189.9()	022.0	AB FL230	
	JOPLN	SPAZZ	010		IF		FB				AB FL230	
	JOPLN	PUB	020		TF		FB	1.0	154.1()	047.2		
	JOPLN	JOPLN	030		TF		FB	1.0	159.5()	054.2		
	TBE	SPAZZ	010		IF		FB				AB FL230	
	TBE	PUB	020		TF		FB	1.0	154.1()	047.2		
	TBE	TBE	030		TF		FB	1.0	139.3()	073.5		
	ZAPAA	SPAZZ	010		IF		FB				AB FL230	
	ZAPAA	FRNKE	020		TF		FB	1.0	197.9()	019.5	AA FL230	
	ZAPAA	ZAPAA	030		TF		FB	1.0	200.6()	070.2		

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	PUB	N381739.32	W1042546.01	N3817.655	W10425.767
	TBE	N371531.17	W1033600.20	N3715.520	W10336.003
	FRNKE	N384505.00	W1045507.39	N3845.083	W10455.123
	JEPPC	N392333.92	W1043532.85	N3923.565	W10435.548
	JOPLN	N372437.63	W1041103.71	N3724.627	W10411.062
	SPAZZ	N390239.07	W1044412.98	N3902.651	W10444.216
	ZAPAA	N374315.85	W1053722.70	N3743.264	W10537.378
	RW11L	N395455.05	W1050742.28	N3954.918	W10507.705
	RW11R	N395451.10	W1050753.55	N3954.852	W10507.893
	RW29L	N395412.12	W1050639.33	N3954.202	W10506.656
	RW29R	N395404.95	W1050606.91	N3954.083	W10506.115

RUNWAY DATA	RWY	THRESHOLD ELEVATION	TCH
	RW11L	05660	41
	RW11R	05673	40
	RW29L	05595	41
	RW29R	05566	52

QUALITY CHECKED

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
SPAZZ RNAV	ONE	SPAZZ1.SPAZZ	NONE		

ARINC PACKET - 424-18 - SID

```
                 1         2         3         4         5         6         7         8         9         0         1         2         3
NAVAID  12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAD        DEN   K2011790VDHW N39484505W104393866    N39484505W104393866E0080054522     NARDENVER
        SUSAD        PUB   K2011670VTHW N38173932W104254601    N38173932W104254601E0130047592     NARPUEBLO
        SUSAD        TBE   K2011120VDLW N37153117W103360020    N37153117W103360020E0120057251     NARTOBE

                 1         2         3         4         5         6         7         8         9         0         1         2         3
WP      12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAEAENRT   BRKEM K20    W     N39485092W104514763                    E0087     NAR          BRKEM
        SUSAEAENRT   CIROS K20    W     N39295992W104490510                    E0086     NAR          CIROS
        SUSAEAENRT   FIGTR K20    W     N39294358W104302431                    E0085     NAR          FIGTR
        SUSAEAENRT   FRNKE K20    W     N38450500W104550739                    E0086     NAR          FRNKE
        SUSAEAENRT   ICECI K20    W     N39225600W104452799                    E0086     NAR          ICECI
        SUSAEAENRT   JEPPC K20    W     N39233392W104353285                    E0085     NAR          JEPPC
        SUSAEAENRT   JETAG K20    W     N39333007W104331802                    E0085     NAR          JETAG
        SUSAEAENRT   JOPLN K20    W     N37243763W104110371                    E0081     NAR          JOPLN
        SUSAEAENRT   KIDNG K20    W     N39483767W104233958                    E0084     NAR          KIDNG
        SUSAEAENRT   LENNN K20    W     N39431502W104554370                    E0087     NAR          LENNN
        SUSAEAENRT   NMBSS K20    W     N39464249W104545923                    E0087     NAR          NMBSS
        SUSAEAENRT   RAYDR K20    W     N39385115W104351081                    E0085     NAR          RAYDR
        SUSAEAENRT   SPAZZ K20    W     N39023907W104441298                    E0086     NAR          SPAZZ
        SUSAEAENRT   SUUPR K20    W     N39232173W104343807                    E0085     NAR          SUUPR
        SUSAEAENRT   TAIIL K20    W     N39381675W104240183                    E0084     NAR          TAIIL
        SUSAEAENRT   TIKLR K20    W     N39373430W104542173                    E0087     NAR          TIKLR
        SUSAEAENRT   TWWIN K20    W     N39434090W104213289                    E0084     NAR          TWWIN
        SUSAEAENRT   ZAPAA K20    W     N37431585W105372270                    E0089     NAR          ZAPAA

                 1         2         3         4         5         6         7         8         9         0         1         2         3
AIRPORT 12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAP KDENK2ADEN     0     160YHN39514200W104402340E008005434         1800018000C    MNAR    DENVER INTL

                 1         2         3         4         5         6         7         8         9         0         1         2         3
SEGMENT 12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAP KDENK2DSPAZZ14RW08  010         0       VI                    0825                          18000
        SUSAP KDENK2DSPAZZ14RW08  020KIDNGK2EA0E    010CF DEN K2      0825012310570099D   - 10000
        SUSAP KDENK2DSPAZZ14RW08  030TWWINK2EA0E    010TF                 15380052
        SUSAP KDENK2DSPAZZ14RW08  040TAIILK2EA0E    010TF                 19160057
        SUSAP KDENK2DSPAZZ14RW08  050FIGTRK2EA0E    010TF                 20200099    + 14000
        SUSAP KDENK2DSPAZZ14RW08  060SUUPRK2EA0E    010TF                 19930072    + 16000
        SUSAP KDENK2DSPAZZ14RW08  070SPAZZK2EA0EE   010TF                 19180220    - FL230
```

QUALITY CHECKED 1

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
SPAZZ RNAV	ONE	SPAZZ1.SPAZZ	NONE		

```
SUSAP KDENK2DSPAZZ14RW16L 010         0       VI                    1725                    18000
SUSAP KDENK2DSPAZZ14RW16L 020RAYDRK2EA0E    010CF DEN K2      1528010514930121D  - 10000
SUSAP KDENK2DSPAZZ14RW16L 030JETAGK2EA0E    010TF                 15680055    - 12000
SUSAP KDENK2DSPAZZ14RW16L 040JEPPCK2EA0E    010TF                 18200101
SUSAP KDENK2DSPAZZ14RW16L 050SPAZZK2EA0EE   010TF                 18990220    - FL230
SUSAP KDENK2DSPAZZ14RW16R 010         0       VI                    1725                    18000
SUSAP KDENK2DSPAZZ14RW16R 020RAYDRK2EA0E    010CF DEN K2      1528010514570116D  - 10000
SUSAP KDENK2DSPAZZ14RW16R 030JETAGK2EA0E    010TF                 15680055    - 12000
SUSAP KDENK2DSPAZZ14RW16R 040JEPPCK2EA0E    010TF                 18200101
SUSAP KDENK2DSPAZZ14RW16R 050SPAZZK2EA0EE   010TF                 18990220    - FL230
SUSAP KDENK2DSPAZZ14RW17L 010         0       VI                    1725                    18000
SUSAP KDENK2DSPAZZ14RW17L 020RAYDRK2EA0E    010CF DEN K2      1528010515670098D  - 10000
SUSAP KDENK2DSPAZZ14RW17L 030JETAGK2EA0E    010TF                 15680055    - 12000
SUSAP KDENK2DSPAZZ14RW17L 040JEPPCK2EA0E    010TF                 18200101
SUSAP KDENK2DSPAZZ14RW17L 050SPAZZK2EA0EE   010TF                 18990220    - FL230
SUSAP KDENK2DSPAZZ14RW17R 010         0       VI                    1725                    18000
SUSAP KDENK2DSPAZZ14RW17R 020RAYDRK2EA0E    010CF DEN K2      1528010515180100D  - 10000
SUSAP KDENK2DSPAZZ14RW17R 030JETAGK2EA0E    010TF                 15680055    - 12000
SUSAP KDENK2DSPAZZ14RW17R 040JEPPCK2EA0E    010TF                 18200101
SUSAP KDENK2DSPAZZ14RW17R 050SPAZZK2EA0EE   010TF                 18990220    - FL230
SUSAP KDENK2DSPAZZ14RW25  010         0       VI                    2625                    18000230        -
SUSAP KDENK2DSPAZZ14RW25  020BRKEMK2EA0E    010CF DEN K2      2627009424370051D  - 10000
SUSAP KDENK2DSPAZZ14RW25  030NMBSSK2EA0E    010TF                 22100033
SUSAP KDENK2DSPAZZ14RW25  040LENNNK2EA0E    010TF                 18140035    + 10000          280        -
SUSAP KDENK2DSPAZZ14RW25  050TIKLRK2EA0E    010TF                 16150058
SUSAP KDENK2DSPAZZ14RW25  060CIROSK2EA0E    010TF                 14360086    + 14000
SUSAP KDENK2DSPAZZ14RW25  070ICECIK2EA0E    010TF                 15030076    + 16000
SUSAP KDENK2DSPAZZ14RW25  080SPAZZK2EA0EE   010TF                 16930203    - FL230
SUSAP KDENK2DSPAZZ14RW34B 010         0       VA                    3525        + 05934     18000230        -
SUSAP KDENK2DSPAZZ14RW34B 020BRKEMK2EA0E   L010DF                                - 10000
SUSAP KDENK2DSPAZZ14RW34B 030NMBSSK2EA0E    010TF                 22100033
SUSAP KDENK2DSPAZZ14RW34B 040LENNNK2EA0E    010TF                 18140035    + 10000          280        -
SUSAP KDENK2DSPAZZ14RW34B 050TIKLRK2EA0E    010TF                 16150058
SUSAP KDENK2DSPAZZ14RW34B 060CIROSK2EA0E    010TF                 14360086    + 14000
SUSAP KDENK2DSPAZZ14RW34B 070ICECIK2EA0E    010TF                 15030076    + 16000
SUSAP KDENK2DSPAZZ14RW34B 080SPAZZK2EA0EE   010TF                 16930203    - FL230
SUSAP KDENK2DSPAZZ14RW35B 010         0       VA                    3525        + 05934     18000
SUSAP KDENK2DSPAZZ14RW35B 020KIDNGK2EA0E   R010DF                                - 10000
SUSAP KDENK2DSPAZZ14RW35B 030TWWINK2EA0E    010TF                 15380052
SUSAP KDENK2DSPAZZ14RW35B 040TAIILK2EA0E    010TF                 19160057
SUSAP KDENK2DSPAZZ14RW35B 050FIGTRK2EA0E    010TF                 20200099    + 14000
SUSAP KDENK2DSPAZZ14RW35B 060SUUPRK2EA0E    010TF                 19930072    + 16000
SUSAP KDENK2DSPAZZ14RW35B 070SPAZZK2EA0EE   010TF                 19180220    - FL230
SUSAP KDENK2DSPAZZ16JOPLN 010SPAZZK2EA0E      IF                                - FL230     18000
SUSAP KDENK2DSPAZZ16JOPLN 020PUB  K2D 0V    010TF                 15410472
SUSAP KDENK2DSPAZZ16JOPLN 030JOPLNK2EA0EE   010TF                 15950542
SUSAP KDENK2DSPAZZ16TBE   010SPAZZK2EA0E      IF                                - FL230     18000
```

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
SPAZZ RNAV	ONE	SPAZZ1.SPAZZ	NONE		

```
SUSAP KDENK2DSPAZZ16TBE   020PUB  K2D 0V    010TF                  15410472
SUSAP KDENK2DSPAZZ16TBE   030TBE  K2D 0VE   010TF                  13930735
SUSAP KDENK2DSPAZZ16ZAPAA 010SPAZZK2EA0E      IF                                - FL230     18000
SUSAP KDENK2DSPAZZ16ZAPAA 020FRNKEK2EA0E    010TF                  19790195    + FL230
SUSAP KDENK2DSPAZZ16ZAPAA 030ZAPAAK2EA0EE   010TF                  20060702
```

```
          1         2         3         4         5         6         7         8         9         0         1         2         3
RUNWAY    12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
          ------------------------------------------------------------------------------------------------------------------------
          SUSAP KDENK2GRW08    0120000825 N39523920W104394403-0500    +161390535400005215OIIFUI1
          SUSAP KDENK2GRW16L   0120001725 N39534933W104411250+0000    +161250535000006015OIILTT1
          SUSAP KDENK2GRW16R   0160001725 N39534487W104414590+0000    +160400532200005520OIIDQQ1
          SUSAP KDENK2GRW17L   0120001725 N39515383W104382870+0300    +160590532800004815OIIBXP1
          SUSAP KDENK2GRW17R   0120001725 N39514048W104393656+0500    +162100537800006015OIIACX1
          SUSAP KDENK2GRW25    0120002625 N39502637W104410217+0000    +161420535500005515OIIERP1
          SUSAP KDENK2GRW34L   0160003525 N39510679W104414772+0000    +160560532700005020OIIDXU3
          SUSAP KDENK2GRW34R   0120003525 N39515077W104411388+0000    +161370535400005915OIIOUF3
          SUSAP KDENK2GRW35L   0120003525 N39494193W104393798-0500    +163810543400005715OIIAQD3
          SUSAP KDENK2GRW35R   0120003525 N39495527W104383016-0300    +161870537000005915OIIDPP3
```

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
SPAZZ RNAV	ONE	SPAZZ1.SPAZZ	NONE		

ARINC SUMMARY - 424-18 - SID

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	RW08		010		VI		FB		082.5()			
	RW08	KIDNG	020		CF		FB	1.0	105.7()	009.9	AB 10000	
	RW08	TWWIN	030		TF		FB	1.0	153.8()	005.2		
	RW08	TAIIL	040		TF		FB	1.0	191.6()	005.7		
	RW08	FIGTR	050		TF		FB	1.0	202.0()	009.9	AA 14000	
	RW08	SUUPR	060		TF		FB	1.0	199.3()	007.2	AA 16000	
	RW08	SPAZZ	070		TF		FB	1.0	191.8()	022.0	AB FL230	
	RW16L		010		VI		FB		172.5()			
	RW16L	RAYDR	020		CF		FB	1.0	149.3()	012.1	AB 10000	
	RW16L	JETAG	030		TF		FB	1.0	156.8()	005.5	AB 12000	
	RW16L	JEPPC	040		TF		FB	1.0	182.0()	010.1		
	RW16L	SPAZZ	050		TF		FB	1.0	189.9()	022.0	AB FL230	
	RW16R		010		VI		FB		172.5()			
	RW16R	RAYDR	020		CF		FB	1.0	145.7()	011.6	AB 10000	
	RW16R	JETAG	030		TF		FB	1.0	156.8()	005.5	AB 12000	
	RW16R	JEPPC	040		TF		FB	1.0	182.0()	010.1		
	RW16R	SPAZZ	050		TF		FB	1.0	189.9()	022.0	AB FL230	
	RW17L		010		VI		FB		172.5()			
	RW17L	RAYDR	020		CF		FB	1.0	156.7()	009.8	AB 10000	
	RW17L	JETAG	030		TF		FB	1.0	156.8()	005.5	AB 12000	
	RW17L	JEPPC	040		TF		FB	1.0	182.0()	010.1		
	RW17L	SPAZZ	050		TF		FB	1.0	189.9()	022.0	AB FL230	
	RW17R		010		VI		FB		172.5()			
	RW17R	RAYDR	020		CF		FB	1.0	151.8()	010.0	AB 10000	
	RW17R	JETAG	030		TF		FB	1.0	156.8()	005.5	AB 12000	
	RW17R	JEPPC	040		TF		FB	1.0	182.0()	010.1		
	RW17R	SPAZZ	050		TF		FB	1.0	189.9()	022.0	AB FL230	
	RW25		010		VI		FB		262.5()			AB 230
	RW25	BRKEM	020		CF		FB	1.0	243.7()	005.1	AB 10000	
	RW25	NMBSS	030		TF		FB	1.0	221.0()	003.3		
	RW25	LENNN	040		TF		FB	1.0	181.4()	003.5	AA 10000	AB 280
	RW25	TIKLR	050		TF		FB	1.0	161.5()	005.8		
	RW25	CIROS	060		TF		FB	1.0	143.6()	008.6	AA 14000	
	RW25	ICECI	070		TF		FB	1.0	150.3()	007.6	AA 16000	
	RW25	SPAZZ	080		TF		FB	1.0	169.3()	020.3	AB FL230	
	RW34B		010		VA		FB		352.5()		AA 05934	AB 230
	RW34B	BRKEM	020		DF	L	FB	1.0			AB 10000	
	RW34B	NMBSS	030		TF		FB	1.0	221.0()	003.3		
	RW34B	LENNN	040		TF		FB	1.0	181.4()	003.5	AA 10000	AB 280
	RW34B	TIKLR	050		TF		FB	1.0	161.5()	005.8		
	RW34B	CIROS	060		TF		FB	1.0	143.6()	008.6	AA 14000	
	RW34B	ICECI	070		TF		FB	1.0	150.3()	007.6	AA 16000	

QUALITY CHECKED

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
SPAZZ RNAV	ONE	SPAZZ1.SPAZZ	NONE		

	RW34B	SPAZZ	080	TF		FB	1.0	169.3()	020.3	AB FL230
	RW35B		010	VA		FB		352.5()		AA 05934
	RW35B	KIDNG	020	DF	R	FB	1.0			AB 10000
	RW35B	TWWIN	030	TF		FB	1.0	153.8()	005.2	
	RW35B	TAIIL	040	TF		FB	1.0	191.6()	005.7	
	RW35B	FIGTR	050	TF		FB	1.0	202.0()	009.9	AA 14000
	RW35B	SUUPR	060	TF		FB	1.0	199.3()	007.2	AA 16000
	RW35B	SPAZZ	070	TF		FB	1.0	191.8()	022.0	AB FL230
	JOPLN	SPAZZ	010	IF		FB				AB FL230
	JOPLN	PUB	020	TF		FB	1.0	154.1()	047.2	
	JOPLN	JOPLN	030	TF		FB	1.0	159.5()	054.2	
	TBE	SPAZZ	010	IF		FB				AB FL230
	TBE	PUB	020	TF		FB	1.0	154.1()	047.2	
	TBE	TBE	030	TF		FB	1.0	139.3()	073.5	
	ZAPAA	SPAZZ	010	IF		FB				AB FL230
	ZAPAA	FRNKE	020	TF		FB	1.0	197.9()	019.5	AA FL230
	ZAPAA	ZAPAA	030	TF		FB	1.0	200.6()	070.2	

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	DEN	N394845.05	W1043938.66	N3948.751	W10439.644
	PUB	N381739.32	W1042546.01	N3817.655	W10425.767
	TBE	N371531.17	W1033600.20	N3715.520	W10336.003
	BRKEM	N394850.92	W1045147.63	N3948.849	W10451.794
	CIROS	N392959.92	W1044905.10	N3929.999	W10449.085
	FIGTR	N392943.58	W1043024.31	N3929.726	W10430.405
	FRNKE	N384505.00	W1045507.39	N3845.083	W10455.123
	ICECI	N392256.00	W1044527.99	N3922.933	W10445.467
	JEPPC	N392333.92	W1043532.85	N3923.565	W10435.548
	JETAG	N393330.07	W1043318.02	N3933.501	W10433.300
	JOPLN	N372437.63	W1041103.71	N3724.627	W10411.062
	KIDNG	N394837.67	W1042339.58	N3948.628	W10423.660
	LENNN	N394315.02	W1045543.70	N3943.250	W10455.728
	NMBSS	N394642.49	W1045459.23	N3946.708	W10454.987
	RAYDR	N393851.15	W1043510.81	N3938.853	W10435.180
	SPAZZ	N390239.07	W1044412.98	N3902.651	W10444.216
	SUUPR	N392321.73	W1043438.07	N3923.362	W10434.635
	TAIIL	N393816.75	W1042401.83	N3938.279	W10424.031
	TIKLR	N393734.30	W1045421.73	N3937.572	W10454.362
	TWWIN	N394340.90	W1042132.89	N3943.682	W10421.548
	ZAPAA	N374315.85	W1053722.70	N3743.264	W10537.378
	RW08	N395239.20	W1043944.03	N3952.653	W10439.734
	RW16L	N395349.33	W1044112.50	N3953.822	W10441.208
	RW16R	N395344.87	W1044145.90	N3953.748	W10441.765
	RW17L	N395153.83	W1043828.70	N3951.897	W10438.478
	RW17R	N395140.48	W1043936.56	N3951.675	W10439.609
	RW25	N395026.37	W1044102.17	N3950.440	W10441.036

QUALITY 1 CHECKED

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
SPAZZ RNAV	ONE	SPAZZ1.SPAZZ	NONE		

RW34L	N395106.79	W1044147.72	N3951.113	W10441.795
RW34R	N395150.77	W1044113.88	N3951.846	W10441.231
RW35L	N394941.93	W1043937.98	N3949.699	W10439.633
RW35R	N394955.27	W1043830.16	N3949.921	W10438.503

RUNWAY DATA

RWY	THRESHOLD ELEVATION	TCH
RW08	05354	52
RW16L	05350	60
RW16R	05322	55
RW17L	05328	48
RW17R	05378	60
RW25	05355	55
RW34L	05327	50
RW34R	05354	59
RW35L	05434	57
RW35R	05370	59

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
SPAZZ RNAV	ONE	SPAZZ1.SPAZZ	NONE		

ARINC PACKET - 424-18 - SID

```
                 1         2         3         4         5         6         7         8         9         0         1         2         3
NAVAID  12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAD        PUB   K2011670VTHW N38173932W104254601    N38173932W104254601E0130047592     NARPUEBLO
        SUSAD        TBE   K2011120VDLW N37153117W103360020    N37153117W103360020E0120057251     NARTOBE

                 1         2         3         4         5         6         7         8         9         0         1         2         3
WP      12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAEAENRT   FRNKE K20    W     N38450500W104550739                    E0086     NAR           FRNKE
        SUSAEAENRT   JEPPC K20    W     N39233392W104353285                    E0085     NAR           JEPPC
        SUSAEAENRT   JOPLN K20    W     N37243763W104110371                    E0081     NAR           JOPLN
        SUSAEAENRT   SPAZZ K20    W     N39023907W104441298                    E0086     NAR           SPAZZ
        SUSAEAENRT   ZAPAA K20    W     N37431585W105372270                    E0089     NAR           ZAPAA

                 1         2         3         4         5         6         7         8         9         0         1         2         3
AIRPORT 12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAP KFNLK2AFNL     0     085YHN40270658W105004081E009005016         18000180000C    MNAR    FORT COLLINS-LOVELAND MUNI

                 1         2         3         4         5         6         7         8         9         0         1         2         3
SEGMENT 12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAP KFNLK2DSPAZZ14RW15  010JEPPCK2EA0E       IF                                                    18000
        SUSAP KFNLK2DSPAZZ14RW15  020SPAZZK2EA0EE   010TF                    18990220    - FL230
        SUSAP KFNLK2DSPAZZ14RW33  010JEPPCK2EA0E       IF                                                    18000
        SUSAP KFNLK2DSPAZZ14RW33  020SPAZZK2EA0EE   010TF                    18990220    - FL230
        SUSAP KFNLK2DSPAZZ16JOPLN 010SPAZZK2EA0E       IF                                - FL230     18000
        SUSAP KFNLK2DSPAZZ16JOPLN 020PUB  K2D 0V    010TF                    15410472
        SUSAP KFNLK2DSPAZZ16JOPLN 030JOPLNK2EA0EE   010TF                    15950542
        SUSAP KFNLK2DSPAZZ16TBE   010SPAZZK2EA0E       IF                                - FL230     18000
        SUSAP KFNLK2DSPAZZ16TBE   020PUB  K2D 0V    010TF                    15410472
        SUSAP KFNLK2DSPAZZ16TBE   030TBE  K2D 0VE   010TF                    13930735
        SUSAP KFNLK2DSPAZZ16ZAPAA 010SPAZZK2EA0E       IF                                - FL230     18000
        SUSAP KFNLK2DSPAZZ16ZAPAA 020FRNKEK2EA0E    010TF                    19790195    + FL230
        SUSAP KFNLK2DSPAZZ16ZAPAA 030ZAPAAK2EA0EE   010TF                    20060702

                 1         2         3         4         5         6         7         8         9         0         1         2         3
RUNWAY  12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAP KFNLK2GRW15     0085001514 N40274421W105010270+0500     +1500004973000050100R
        SUSAP KFNLK2GRW33     0085003314 N40262508W105002589-0500     +1512905016000051100IIFNL1
```

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
SPAZZ RNAV	ONE	SPAZZ1.SPAZZ	NONE		

ARINC SUMMARY - 424-18 - SID

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	RW15	JEPPC	010		IF		FB					
	RW15	SPAZZ	020		TF		FB	1.0	189.9()	022.0	AB FL230	
	RW33	JEPPC	010		IF		FB					
	RW33	SPAZZ	020		TF		FB	1.0	189.9()	022.0	AB FL230	
	JOPLN	SPAZZ	010		IF		FB				AB FL230	
	JOPLN	PUB	020		TF		FB	1.0	154.1()	047.2		
	JOPLN	JOPLN	030		TF		FB	1.0	159.5()	054.2		
	TBE	SPAZZ	010		IF		FB				AB FL230	
	TBE	PUB	020		TF		FB	1.0	154.1()	047.2		
	TBE	TBE	030		TF		FB	1.0	139.3()	073.5		
	ZAPAA	SPAZZ	010		IF		FB				AB FL230	
	ZAPAA	FRNKE	020		TF		FB	1.0	197.9()	019.5	AA FL230	
	ZAPAA	ZAPAA	030		TF		FB	1.0	200.6()	070.2		

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	PUB	N381739.32	W1042546.01	N3817.655	W10425.767
	TBE	N371531.17	W1033600.20	N3715.520	W10336.003
	FRNKE	N384505.00	W1045507.39	N3845.083	W10455.123
	JEPPC	N392333.92	W1043532.85	N3923.565	W10435.548
	JOPLN	N372437.63	W1041103.71	N3724.627	W10411.062
	SPAZZ	N390239.07	W1044412.98	N3902.651	W10444.216
	ZAPAA	N374315.85	W1053722.70	N3743.264	W10537.378
	RW15	N402744.21	W1050102.70	N4027.737	W10501.045
	RW33	N402625.08	W1050025.89	N4026.418	W10500.432

RUNWAY DATA	RWY	THRESHOLD ELEVATION	TCH
	RW15	04973	50
	RW33	05016	51

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
SPAZZ RNAV	ONE	SPAZZ1.SPAZZ	NONE		

ARINC PACKET - 424-18 - SID

```
                 1         2         3         4         5         6         7         8         9         0         1         2         3
NAVAID  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAD        PUB   K2011670VTHW N38173932W104254601    N38173932W104254601E0130047592     NARPUEBLO
        SUSAD        TBE   K2011120VDLW N37153117W103360020    N37153117W103360020E0120057251     NARTOBE

                 1         2         3         4         5         6         7         8         9         0         1         2         3
WP      123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAEAENRT   FRNKE K20    W     N38450500W104550739                    E0086     NAR           FRNKE
        SUSAEAENRT   JEPPC K20    W     N39233392W104353285                    E0085     NAR           JEPPC
        SUSAEAENRT   JOPLN K20    W     N37243763W104110371                    E0081     NAR           JOPLN
        SUSAEAENRT   SPAZZ K20    W     N39023907W104441298                    E0086     NAR           SPAZZ
        SUSAEAENRT   ZAPAA K20    W     N37431585W105372270                    E0089     NAR           ZAPAA

                 1         2         3         4         5         6         7         8         9         0         1         2         3
AIRPORT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KFTGK2AFTG     0     080YHN39470312W104321544E008005512         1800018000C    MNAR    FRONT RANGE

                 1         2         3         4         5         6         7         8         9         0         1         2         3
SEGMENT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KFTGK2DSPAZZ14RW08  010         0       VA                    0832        + 06020     18000
        SUSAP KFTGK2DSPAZZ14RW08  020         0       VM                    0832
        SUSAP KFTGK2DSPAZZ14RW08  030JEPPCK2EA0E    010DF
        SUSAP KFTGK2DSPAZZ14RW08  040SPAZZK2EA0EE   010TF                   18990220    - FL230
        SUSAP KFTGK2DSPAZZ14RW17  010         0       VA                    1720        + 06020     18000
        SUSAP KFTGK2DSPAZZ14RW17  020         0       VM                    1720
        SUSAP KFTGK2DSPAZZ14RW17  030JEPPCK2EA0E    010DF
        SUSAP KFTGK2DSPAZZ14RW17  040SPAZZK2EA0EE   010TF                   18990220    - FL230
        SUSAP KFTGK2DSPAZZ14RW26  010         0       VA                    2632        + 06020     18000
        SUSAP KFTGK2DSPAZZ14RW26  020         0       VM                    2632
        SUSAP KFTGK2DSPAZZ14RW26  030JEPPCK2EA0E    010DF
        SUSAP KFTGK2DSPAZZ14RW26  040SPAZZK2EA0EE   010TF                   18990220    - FL230
        SUSAP KFTGK2DSPAZZ14RW35  010         0       VA                    3520        + 06020     18000
        SUSAP KFTGK2DSPAZZ14RW35  020         0       VM                    3520
        SUSAP KFTGK2DSPAZZ14RW35  030JEPPCK2EA0E    010DF
        SUSAP KFTGK2DSPAZZ14RW35  040SPAZZK2EA0EE   010TF                   18990220    - FL230
        SUSAP KFTGK2DSPAZZ16JOPLN 010SPAZZK2EA0E      IF                                - FL230     18000
        SUSAP KFTGK2DSPAZZ16JOPLN 020PUB  K2D 0V    010TF                   15410472
        SUSAP KFTGK2DSPAZZ16JOPLN 030JOPLNK2EA0EE   010TF                   15950542
        SUSAP KFTGK2DSPAZZ16TBE   010SPAZZK2EA0E      IF                                - FL230     18000
        SUSAP KFTGK2DSPAZZ16TBE   020PUB  K2D 0V    010TF                   15410472
```

QUALITY CHECKED

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
SPAZZ RNAV	ONE	SPAZZ1.SPAZZ	NONE		

```
SUSAP KFTGK2DSPAZZ16TBE   030TBE  K2D 0VE   010TF                  13930735
SUSAP KFTGK2DSPAZZ16ZAPAA 010SPAZZK2EA0E      IF                                - FL230     18000
SUSAP KFTGK2DSPAZZ16ZAPAA 020FRNKEK2EA0E    010TF                  19790195    + FL230
SUSAP KFTGK2DSPAZZ16ZAPAA 030ZAPAAK2EA0EE   010TF                  20060702
```

```
            1         2         3         4         5         6         7         8         9         0         1         2         3
RUNWAY  12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------
SUSAP KFTGK2GRW08    0080000832 N39473842W104335487+0400    +1643905450000050100D
SUSAP KFTGK2GRW17    0080001720 N39470815W104312724+0500    +1650805473000055100IIFZR1
SUSAP KFTGK2GRW26    0080002632 N39473682W104321243-0400    +1654705485000045100IIFTG1
SUSAP KFTGK2GRW35    0080003520 N39454910W104312722-0500    +1662705512000054100IIVWT1
```

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
SPAZZ RNAV	ONE	SPAZZ1.SPAZZ	NONE		

ARINC SUMMARY - 424-18 - SID

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	RW08		010		VA		FB		083.2()		AA 06020	
	RW08		020		VM		FB		083.2()			
	RW08	JEPPC	030		DF		FB	1.0				
	RW08	SPAZZ	040		TF		FB	1.0	189.9()	022.0	AB FL230	
	RW17		010		VA		FB		172.0()		AA 06020	
	RW17		020		VM		FB		172.0()			
	RW17	JEPPC	030		DF		FB	1.0				
	RW17	SPAZZ	040		TF		FB	1.0	189.9()	022.0	AB FL230	
	RW26		010		VA		FB		263.2()		AA 06020	
	RW26		020		VM		FB		263.2()			
	RW26	JEPPC	030		DF		FB	1.0				
	RW26	SPAZZ	040		TF		FB	1.0	189.9()	022.0	AB FL230	
	RW35		010		VA		FB		352.0()		AA 06020	
	RW35		020		VM		FB		352.0()			
	RW35	JEPPC	030		DF		FB	1.0				
	RW35	SPAZZ	040		TF		FB	1.0	189.9()	022.0	AB FL230	
	JOPLN	SPAZZ	010		IF		FB				AB FL230	
	JOPLN	PUB	020		TF		FB	1.0	154.1()	047.2		
	JOPLN	JOPLN	030		TF		FB	1.0	159.5()	054.2		
	TBE	SPAZZ	010		IF		FB				AB FL230	
	TBE	PUB	020		TF		FB	1.0	154.1()	047.2		
	TBE	TBE	030		TF		FB	1.0	139.3()	073.5		
	ZAPAA	SPAZZ	010		IF		FB				AB FL230	
	ZAPAA	FRNKE	020		TF		FB	1.0	197.9()	019.5	AA FL230	
	ZAPAA	ZAPAA	030		TF		FB	1.0	200.6()	070.2		

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	PUB	N381739.32	W1042546.01	N3817.655	W10425.767
	TBE	N371531.17	W1033600.20	N3715.520	W10336.003
	FRNKE	N384505.00	W1045507.39	N3845.083	W10455.123
	JEPPC	N392333.92	W1043532.85	N3923.565	W10435.548
	JOPLN	N372437.63	W1041103.71	N3724.627	W10411.062
	SPAZZ	N390239.07	W1044412.98	N3902.651	W10444.216
	ZAPAA	N374315.85	W1053722.70	N3743.264	W10537.378
	RW08	N394738.42	W1043354.87	N3947.640	W10433.915
	RW17	N394708.15	W1043127.24	N3947.136	W10431.454
	RW26	N394736.82	W1043212.43	N3947.614	W10432.207
	RW35	N394549.10	W1043127.22	N3945.818	W10431.454

RUNWAY DATA	RWY	THRESHOLD ELEVATION	TCH

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
SPAZZ RNAV	ONE	SPAZZ1.SPAZZ	NONE		

RW08	05450	50
RW17	05473	55
RW26	05485	45
RW35	05512	54

RADIO FIX AND HOLDING DATA RECORD

NAME: BRKEM **STATE:** CO **COUNTRY:** US

LATITUDE/LONGITUDE: 394850.92N/1045147.63W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	JMPRS (RNAV)			KDEN	DENVER	CO (US)
DP	SOLAR (RNAV)			KDEN	DENVER	CO (US)
DP	SPAZZ (RNAV)			KDEN	DENVER	CO (US)
DP	STAKR (RNAV)			KDEN	DENVER	CO (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 01/10/2013

DEVELOPED BY: **DATE:** 08/13/2012 **OFFICE:** AJV-354 **NAME:** TRACEY STILES

APPROVED BY: **DATE:** **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: WST
ARTCC: ZDV
ATC FACILITY: DEN
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: CIROS **STATE:** CO **COUNTRY:** US

LATITUDE/LONGITUDE: 392959.92N/1044905.10W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	JMPRS (RNAV)			KDEN	DENVER	CO (US)
DP	SOLAR (RNAV)			KDEN	DENVER	CO (US)
DP	SPAZZ (RNAV)			KDEN	DENVER	CO (US)
DP	STAKR (RNAV)			KDEN	DENVER	CO (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 01/10/2013

DEVELOPED BY: **DATE:** 08/13/2012 **OFFICE:** AJV-354 **NAME:** TRACEY STILES

APPROVED BY: **DATE:** **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: WST
ARTCC: ZDV
ATC FACILITY: DEN
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: FIGTR **STATE:** CO **COUNTRY:** US

LATITUDE/LONGITUDE: 392943.58N/1043024.31W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	JMPRS (RNAV)			KDEN	DENVER	CO (US)
DP	SOLAR (RNAV)			KDEN	DENVER	CO (US)
DP	SPAZZ (RNAV)			KDEN	DENVER	CO (US)
DP	STAKR (RNAV)			KDEN	DENVER	CO (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 01/10/2013

DEVELOPED BY: **DATE:** 08/13/2012 **OFFICE:** AJV-354 **NAME:** TRACEY STILES

APPROVED BY: **DATE:** **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: WST
ARTCC: ZDV
ATC FACILITY: DEN
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: FRNKE **STATE:** CO **COUNTRY:** US

LATITUDE/LONGITUDE: 384505.00N/1045507.39W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	SPAZZ (RNAV)			KDEN	DENVER	CO (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 01/10/2013

DEVELOPED BY: **DATE:** 08/29/2012 **OFFICE:** AJV-354 **NAME:** TRACEY STILES

APPROVED BY: **DATE:** **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: WST
ARTCC: ZDV
ATC FACILITY: DEN
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: ICECI **STATE:** CO **COUNTRY:** US

LATITUDE/LONGITUDE: 392256.00N/1044527.99W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	JMPRS (RNAV)			KDEN	DENVER	CO (US)
DP	SPAZZ (RNAV)			KDEN	DENVER	CO (US)
DP	STAKR (RNAV)			KDEN	DENVER	CO (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 01/10/2013

DEVELOPED BY: **DATE:** 08/14/2012 **OFFICE:** AJV-354 **NAME:** TRACEY STILES

APPROVED BY: **DATE:** **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: WST
ARTCC: ZDV
ATC FACILITY: DEN
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: JEPPC **STATE:** CO **COUNTRY:** US

LATITUDE/LONGITUDE: 392333.92N/1043532.85W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	SPAZZ (RNAV)			KAPA	DENVER	CO (US)
DP	SPAZZ (RNAV)			KBJC	DENVER	CO (US)
DP	SPAZZ (RNAV)			KDEN	DENVER	CO (US)
DP	SPAZZ (RNAV)			KFTG	DENVER	CO (US)
DP	SPAZZ (RNAV)			KFNL	FORT COLLINS/LOVELAND	CO (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 01/10/2013

DEVELOPED BY: **DATE:** 08/15/2012 **OFFICE:** AJV-354 **NAME:** TRACEY STILES

APPROVED BY: **DATE:** **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: WST
ARTCC: ZDV
ATC FACILITY: DEN
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: JETAG **STATE:** CO **COUNTRY:** US

LATITUDE/LONGITUDE: 393330.07N/1043318.02W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	JMPRS (RNAV)			KDEN	DENVER	CO (US)
DP	SPAZZ (RNAV)			KDEN	DENVER	CO (US)
DP	STAKR (RNAV)			KDEN	DENVER	CO (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 01/10/2013

DEVELOPED BY: **DATE:** 08/14/2012 **OFFICE:** AJV-354 **NAME:** TRACEY STILES

APPROVED BY: **DATE:** **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: WST
ARTCC: ZDV
ATC FACILITY: DEN
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: JOPLN **STATE:** CO **COUNTRY:** US

LATITUDE/LONGITUDE: 372437.63N/1041103.71W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	SPAZZ (RNAV)			KDEN	DENVER	CO (US)

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 01/10/2013

DEVELOPED BY: **DATE:** **OFFICE:** **NAME:**

APPROVED BY: **DATE:** **OFFICE:** **NAME:**

SIGNATURE:

DISTRIBUTION:
NFDC
FPO:
ARTCC:
ATC FACILITY:
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: LENNN **STATE:** CO **COUNTRY:** US

LATITUDE/LONGITUDE: 394315.02N/1045543.70W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	JMPRS (RNAV)			KDEN	DENVER	CO (US)
DP	SOLAR (RNAV)			KDEN	DENVER	CO (US)
DP	SPAZZ (RNAV)			KDEN	DENVER	CO (US)
DP	STAKR (RNAV)			KDEN	DENVER	CO (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 01/10/2013

DEVELOPED BY: **DATE:** 08/14/2012 **OFFICE:** AJV-354 **NAME:** TRACEY STILES

APPROVED BY: **DATE:** **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: WST
ARTCC: ZDV
ATC FACILITY: DEN
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: NMBSS **STATE:** CO **COUNTRY:** US

LATITUDE/LONGITUDE: 394642.49N/1045459.23W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	JMPRS (RNAV)			KDEN	DENVER	CO (US)
DP	SOLAR (RNAV)			KDEN	DENVER	CO (US)
DP	SPAZZ (RNAV)			KDEN	DENVER	CO (US)
DP	STAKR (RNAV)			KDEN	DENVER	CO (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 01/10/2013

DEVELOPED BY: **DATE:** 08/14/2012 **OFFICE:** AJV-354 **NAME:** TRACEY STILES

APPROVED BY: **DATE:** **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: WST
ARTCC: ZDV
ATC FACILITY: DEN
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: RAYDR **STATE:** CO **COUNTRY:** US

LATITUDE/LONGITUDE: 393851.15N/1043510.81W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	JMPRS (RNAV)			KDEN	DENVER	CO (US)
DP	SPAZZ (RNAV)			KDEN	DENVER	CO (US)
DP	STAKR (RNAV)			KDEN	DENVER	CO (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 01/10/2013

DEVELOPED BY: **DATE:** 08/14/2012 **OFFICE:** AJV-354 **NAME:** TRACEY STILES

APPROVED BY: **DATE:** **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: WST
ARTCC: ZDV
ATC FACILITY: DEN
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: SPAZZ **STATE:** CO **COUNTRY:** US

LATITUDE/LONGITUDE: 390239.07N/1044412.98W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	SPAZZ (RNAV)			KAPA	DENVER	CO (US)
DP	SPAZZ (RNAV)			KBJC	DENVER	CO (US)
DP	SPAZZ (RNAV)			KDEN	DENVER	CO (US)
DP	SPAZZ (RNAV)			KFTG	DENVER	CO (US)
DP	SPAZZ (RNAV)			KFNL	FORT COLLINS/LOVELAND	CO (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 01/10/2013

DEVELOPED BY: **DATE:** 08/15/2012 **OFFICE:** AJV-354 **NAME:** TRACEY STILES

APPROVED BY: **DATE:** **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: WST
ARTCC: ZDV
ATC FACILITY: DEN
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: SUUPR **STATE:** CO **COUNTRY:** US

LATITUDE/LONGITUDE: 392321.73N/1043438.07W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	SPAZZ (RNAV)			KDEN	DENVER	CO (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 01/10/2013

DEVELOPED BY: **DATE:** 08/15/2012 **OFFICE:** AJV-354 **NAME:** TRACEY STILES

APPROVED BY: **DATE:** **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: WST
ARTCC: ZDV
ATC FACILITY: DEN
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: TAIIL **STATE:** CO **COUNTRY:** US

LATITUDE/LONGITUDE: 393816.75N/1042401.83W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	JMPRS (RNAV)			KDEN	DENVER	CO (US)
DP	SOLOAR (RNAV)			KDEN	DENVER	CO (US)
DP	SPAZZ (RNAV)			KDEN	DENVER	CO (US)
DP	STAKR (RNAV)			KDEN	DENVER	CO (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 01/10/2013

DEVELOPED BY: **DATE:** 08/14/2012 **OFFICE:** AJV-354 **NAME:** TRACEY STILES

APPROVED BY: **DATE:** **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: WST
ARTCC: ZDV
ATC FACILITY: DEN
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: TIKLR **STATE:** CO **COUNTRY:** US

LATITUDE/LONGITUDE: 393734.30N/1045421.73W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	JMPRS (RNAV)			KDEN	DENVER	CO (US)
DP	SOLAR (RNAV)			KDEN	DENVER	CO (US)
DP	SPAZZ (RNAV)			KDEN	DENVER	CO (US)
DP	STAKR (RNAV)			KDEN	DENVER	CO (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 01/10/2013

DEVELOPED BY: **DATE:** 08/14/2012 **OFFICE:** AJV-354 **NAME:** TRACEY STILES

APPROVED BY: **DATE:** **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: WST
ARTCC: ZDV
ATC FACILITY: DEN
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: TWWIN **STATE:** CO **COUNTRY:** US

LATITUDE/LONGITUDE: 394340.90N/1042132.89W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	JMPRS (RNAV)			KDEN	DENVER	CO (US)
DP	SOLOR (RNAV)			KDEN	DENVER	CO (US)
DP	SPAZZ (RNAV)			KDEN	DENVER	CO (US)
DP	STAKR (RNAV)			KDEN	DENVER	CO (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 01/10/2013

DEVELOPED BY: **DATE:** 08/14/2012 **OFFICE:** AJV-354 **NAME:** TRACEY STILES

APPROVED BY: **DATE:** **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: WST
ARTCC: ZDV
ATC FACILITY: DEN
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: ZAPAA **STATE:** CO **COUNTRY:** US

LATITUDE/LONGITUDE: 374315.85N/1053722.70W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	SPAZZ (RNAV)			KDEN	DENVER	CO (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 01/10/2013

DEVELOPED BY: **DATE:** 08/15/2012 **OFFICE:** AJV-354 **NAME:** TRACEY STILES

APPROVED BY: **DATE:** **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: WST
ARTCC: ZDV
ATC FACILITY: DEN
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: KIDNG **STATE:** CO **COUNTRY:** US

LATITUDE/LONGITUDE: 394837.67N/1042339.58W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	BRYCC			KAPA	DENVER	CO (US)
DP	EEONS			KAPA	DENVER	CO (US)
DP	EMMYS			KAPA	DENVER	CO (US)
DP	EPKEE			KAPA	DENVER	CO (US)
DP	EXTAN			KAPA	DENVER	CO (US)
DP	RIKKK			KAPA	DENVER	CO (US)
DP	YAMMI			KAPA	DENVER	CO (US)
DP	YOKES			KAPA	DENVER	CO (US)
DP	BRYCC			KBJC	DENVER	CO (US)
DP	EEONS			KBJC	DENVER	CO (US)
DP	EMMYS			KBJC	DENVER	CO (US)
DP	EPKEE			KBJC	DENVER	CO (US)
DP	EXTAN			KBJC	DENVER	CO (US)
DP	RIKKK			KBJC	DENVER	CO (US)
DP	YAMMI			KBJC	DENVER	CO (US)
DP	YOKES			KBJC	DENVER	CO (US)
DP	BRYCC			KDEN	DENVER	CO (US)
DP	EEONS			KDEN	DENVER	CO (US)
DP	EMMYS			KDEN	DENVER	CO (US)
DP	EPKEE			KDEN	DENVER	CO (US)
DP	EXTAN			KDEN	DENVER	CO (US)
DP	JMPRS			KDEN	DENVER	CO (US)
DP	RIKKK			KDEN	DENVER	CO (US)
DP	SOLAR			KDEN	DENVER	CO (US)
DP	SPAZZ (RNAV)			KDEN	DENVER	CO (US)
DP	STAKR (RNAV)			KDEN	DENVER	CO (US)
DP	YAMMI			KDEN	DENVER	CO (US)
DP	YOKES			KDEN	DENVER	CO (US)
DP	BRYCC			KFTG	DENVER	CO (US)
DP	EEONS			KFTG	DENVER	CO (US)
DP	EMMYS			KFTG	DENVER	CO (US)
DP	EPKEE			KFTG	DENVER	CO (US)
DP	EXTAN			KFTG	DENVER	CO (US)
DP	RIKKK			KFTG	DENVER	CO (US)
DP	YAMMI			KFTG	DENVER	CO (US)
DP	YOKES			KFTG	DENVER	CO (US)
DP	BRYCC			KFNL	FORT COLLINS/LOVELAND	CO (US)
DP	EEONS			KFNL	FORT COLLINS/LOVELAND	CO (US)
DP	EMMYS			KFNL	FORT COLLINS/LOVELAND	CO (US)
DP	EPKEE			KFNL	FORT COLLINS/LOVELAND	CO (US)
DP	EXTAN			KFNL	FORT COLLINS/LOVELAND	CO (US)
DP	RIKKK			KFNL	FORT COLLINS/LOVELAND	CO (US)
DP	YAMMI			KFNL	FORT COLLINS/LOVELAND	CO (US)
DP	YOKES			KFNL	FORT COLLINS/LOVELAND	CO (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 01/10/2013

DEVELOPED BY: **DATE:** 08/11/2012 **OFFICE:** AJV-354 **NAME:** CHARLES ERICKSON

APPROVED BY: **DATE:** **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: WST
ARTCC: ZDV
ATC FACILITY: DEN
OTHER:

INFO ONLY

RADIO FIX AND HOLDING DATA RECORD

NAME: PUEBLO VORTAC **STATE:** CO **COUNTRY:** US

LATITUDE/LONGITUDE: 381739.32N/1042546.01W **TYPE:**

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	DIST FROM FAC FEET	MRA	MAA
1	PUEBLO	PUB	VORTAC	H							45000

HOLDING: **HOLDING TYPE OF ACTION:** MODIFY

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	LEG LENGTH DME	HOLDING ALTITUDES MIN	HOLDING ALTITUDES MAX	TEMPLATES MIN	TEMPLATES MAX
1	NE	PUB	VORTAC	064.22	244.22	R	1-1 1/2		7400	17500	8	20
2	NE	PUB	VORTAC	066.78	246.78	R	1-1 1/2		7500	14000	8	10

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	TOWER (08-000066)	382224.00N/1043329.00W	6303	4D
1	310	TOWER (08-000066)	382224.00N/1043329.00W	6303	4D
2	230	TOWER (08-000066)	382224.00N/1043329.00W	6303	4D

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERN.

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
1	TAKE-OFF MINIMUMS	KPUB	PUEBLO	CO (US)

REMARKS:
PRECIPITOUS TERRAIN EVALUATION COMPLETED.
PAT 1 230K OBSTACLE LOCATED 8412 FEET INTO SECONDARY.
PAT 2 230K OBSTACLE LOCATED 4902 FEET INTO SECONDARY.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	ASPEN			KASE	ASPEN	CO (US)
DP	DENVER			KBKF	AURORA	CO (US)
DP	PIKES			KBKF	AURORA	CO (US)
DP	PUEBLO (RNAV) (OBSTACLE)			KAEJ	BUENA VISTA	CO (US)
DP	TEXTUAL DEPARTURE	1		K1V6	CANON CITY	CO (US)
DP	SPRINGS			KCOS	COLORADO SPRINGS	CO (US)
DP	DENVER			KAPA	DENVER	CO (US)
DP	PIKES			KAPA	DENVER	CO (US)
DP	DENVER			KBJC	DENVER	CO (US)
DP	PIKES			KBJC	DENVER	CO (US)
DP	DENVER			KDEN	DENVER	CO (US)
DP	PIKES			KDEN	DENVER	CO (US)
DP	SPAZZ (RNAV)			KDEN	DENVER	CO (US)
DP	DENVER			KFTG	DENVER	CO (US)
DP	PIKES			KFTG	DENVER	CO (US)
DP	DENVER			KFNL	FORT COLLINS/LOVELAND	CO (US)
DP	PIKES			KFNL	FORT COLLINS/LOVELAND	CO (US)
DP	DENVER			KGXY	GREELEY	CO (US)
DP	PIKES			KGXY	GREELEY	CO (US)
DP	CANYON			KPUB	PUEBLO	CO (US)
EN ROUTE	J104					(US)
EN ROUTE	J17					(US)
EN ROUTE	J28					(US)
EN ROUTE	J64					(US)
EN ROUTE	V10					(US)
EN ROUTE	V244					(US)
EN ROUTE	V389					(US)
EN ROUTE	V611					(US)
EN ROUTE	V81					(US)
EN ROUTE	V83					(US)
IAP	RNAV (RNP) Z RWY 29			K1V6	CANON CITY	CO (US)
IAP	ILS OR LOC RWY 17L			KCOS	COLORADO SPRINGS	CO (US)
IAP	ILS OR LOC RWY 35L			KCOS	COLORADO SPRINGS	CO (US)
IAP	ILS OR LOC RWY 35R		1	KCOS	COLORADO SPRINGS	CO (US)
IAP	ILS RWY 17L (SA CAT 1)			KCOS	COLORADO SPRINGS	CO (US)
IAP	NDB RWY 35L			KCOS	COLORADO SPRINGS	CO (US)
IAP	RNAV (GPS) RWY 31			KCOS	COLORADO SPRINGS	CO (US)
IAP	RNAV (GPS) Y RWY 17R			KCOS	COLORADO SPRINGS	CO (US)
IAP	RNAV (GPS) Y RWY 35L			KCOS	COLORADO SPRINGS	CO (US)
IAP	RNAV (GPS) Y RWY 35R			KCOS	COLORADO SPRINGS	CO (US)
IAP	RNAV (RNP) Z RWY 17R			KCOS	COLORADO SPRINGS	CO (US)
IAP	ILS OR LOC/DME RWY 08R			KPUB	PUEBLO	CO (US)

IAP	ILS OR LOC/DME RWY 26L		KPUB	PUEBLO	CO (US)
IAP	RNAV (GPS) RWY 08R		KPUB	PUEBLO	CO (US)
IAP	RNAV (GPS) RWY 26L		KPUB	PUEBLO	CO (US)
IAP	VOR/DME RWY 26L	2	KPUB	PUEBLO	CO (US)
OTHER	TAKE-OFF MINIMUMS		K1V6	CANON CITY	CO (US)
OTHER	TAKE-OFF MINIMUMS	1	KPUB	PUEBLO	CO (US)
STAR	DEBERRY		KCOS	COLORADO SPRINGS	CO (US)
STAR	DANDD		KDEN	DENVER	CO (US)
STAR	LARKS		KDEN	DENVER	CO (US)
STAR	QUAIL		KDEN	DENVER	CO (US)

REQUIRED CHARTING: DP, STAR, MILITARY IAP, IAP, CONTROLLER, EN ROUTE LOW, EN ROUTE HIGH

COMPULSORY REPORTING POINT: LOW

RECORD REVISION NUMBER: 17 **DATE OF REVISION:** 11/15/2012

REASON FOR REVISION:
FIX NAME CHANGED FROM PUB VOR/DME TO PUB VORTAC.
FACILITY TYPE CHANGED FROM VOR/DME TO VORTAC.

DEVELOPED BY: **DATE:** 07/16/2012 **OFFICE:** AJV-354 **NAME:** CATHERINE CHILDRESS

APPROVED BY: **DATE:** **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: WST
ARTCC: ZDV
ATC FACILITY: PUB ATCT, COS ATCT
OTHER: COS APP CON

INFO ONLY

RADIO FIX AND HOLDING DATA RECORD

NAME: TOBE VOR/DME **STATE:** CO **COUNTRY:** US

LATITUDE/LONGITUDE: 371531.17N/1033600.20W **TYPE:**

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	DIST FROM FAC FEET	MRA	MAA
1	TOBE	TBE	VOR/DME	L							45000

HOLDING: **HOLDING TYPE OF ACTION:** NO CHANGE

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	SPRINGS			KCOS	COLORADO SPRINGS	CO (US)
DP	SPAZZ (RNAV)			KDEN	DENVER	CO (US)
DP	CANYON			KPUB	PUEBLO	CO (US)
EN ROUTE	J17					(US)
EN ROUTE	J171					(US)
EN ROUTE	V169					(US)
EN ROUTE	V263					(US)
EN ROUTE	V81					(US)
IAP	NDB-A			KTAD	TRINIDAD	CO (US)
STAR	DEBERRY			KCOS	COLORADO SPRINGS	CO (US)
STAR	OZZZY (RNAV)			KCOS	COLORADO SPRINGS	CO (US)

REQUIRED CHARTING: DP, STAR, IAP, CONTROLLER, EN ROUTE LOW, EN ROUTE HIGH

COMPULSORY REPORTING POINT: LOW

RECORD REVISION NUMBER: 5 **DATE OF REVISION:** 11/15/2012

REASON FOR REVISION:
UPDATED FIX USE
FAC 1 CHANGED FROM VORTAC TO VOR/DME

DEVELOPED BY: **DATE:** 03/16/2012 **OFFICE:** AJV-354 **NAME:** CHARLES SCHNEIDER

APPROVED BY: **DATE:** **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: WST
ARTCC: ZDV
ATC FACILITY: PUB
OTHER: COS

US Department of Transportation
Federal Aviation Administration

FLIGHT PROCEDURES STANDARDS WAIVER

FLIGHT STANDARDS USE ONLY

CONTROL NO:

1. Flight Procedure Identification:
DENVER, CO (KDEN)
DENVER INTL

SPAZZ (RNAV) STANDARD INSTRUMENT DERPARTURE (SID)

2. Waiver Required and Applicable Standard:
8260.46, CHAPTER 2, PARA 2-1e(1)(b)
WHEN ATC REQUIRES PUBLICATION OF A MAXIMUM "AT OR BELOW" ALTITUDE TO SUPPORT AN OPERATIONAL REQUIREMENT, A MINIMUM "AT OR ABOVE" ALTITUDE MUST ALSO BE SPECIFIED.

3. Reason for Waiver *(Justification for nonstandard treatment)*:
ATC HAS REQUESTED NUMEROUS CROSS AT OR BELOW ALTITUDES AT VARIOUS WAY-POINTS ON THIS PROCEDURE. SOUTHWEST AND UNITED AIRLINES HAVE REQUESTED THAT THE ASSOCIATED MINIMUM "AT OR ABOVE" ALTITUDE THAT WOULD NORMALLY BE PUBLISHED AT THESE FIXES NOT BE INCLUDED ON THE PROCEDURE.

4. Equivalent Level of Safety Provided:
1. NON-STANDARD MANDATORY CLIMB GRADIENTS HAVE BEEN APPLIED THAT ALLOW FOR A CONTINUOUS CLIMB THAT MEET BOTH CROSS AT OR ABOVE ALTITUDES AND CROSS AT OR BELOW ALTITUDES WHILE ENSURING OBSTACLE CLEARANCE.

2. FOR AIRCRAFT THAT CLIMB RAPIDLY AND MUST LEVEL OFF TEMPORARILY TO MEET THE CROSS AT/BELOW RESTRICTIONS (LOWEST OF WHICH IS 10000), THE CROSS AT OR BELOW ALTITUDES ARE A MINIMUM OF 3500 FT ABOVE ALL OBSTACLES OVER ALL FIXES WITH AT OR BELOW RESTRICTIONS.

3. THE MINIMUM VECTORING ALTITUDE IN THE TERPS EVALUATED DEPARTURE ROUTE WHERE THE AT/BELOW CROSSING RESTRICTIONS ARE LOCATED IS 8000 FT.

4. ENROUTE ROC FOR LEVEL-OFF ALTITUDE IS ASSURED FOR FAST CLIMBING AIRCRAFT FROM DER TO THE AT OR BELOW FIX.

5. How Relocation or Additional Facilities Will Affect Waiver Requirement:

N/A

6. Coordination With User Organizations *(Specify)*:

AJV-354

7. SUBMITTED BY

DATE:	Office Identification:	Title:	Signature:
	AJV-35	**MANAGER, TERMINAL PRODUCTS GROUP**	**GREG YAMAMOTO**

8. CONTINUATION
Comments:

9. AFS ACTION		Approved
		Disapproved
		Not Required

Comments:		
Date:	Routing Symbol:	Signature:

US Department of Transportation
Federal Aviation Administration

FLIGHT PROCEDURES STANDARDS WAIVER

FLIGHT STANDARDS USE ONLY

CONTROL NO:

1. Flight Procedure Identification:
DENVER, CO (KDEN)
DENVER INTL
SPAZZ (RNAV), STANDARD INSTRUMENT DEPARTURE (SID)

2. Waiver Required and Applicable Standard: **8260.46 APPENDIX A, 2. d. DPs DESIGNED USING CONVENTIONAL , RNAV GUIDANCE MUST BE NAMED TO CORRESPOND WITH THE ENROUTE FIX/NAVAID NAME WHERE THE DP ENDS.**

3. Reason for Waiver *(Justification for nonstandard treatment)*:
ATC HAS REQUESTED TO DEVIATE FROM THE STANDARD NAMING CONVENTION CONTAINED IN FAAO 8260.46, DEPARTURE PROCEDURE (DP) PROGRAM, APPENDIX A, GUIDELINES FOR DESIGN OF GRAPHIC INSTRUMENT DEPARTURE PROCEDURES (DP). SIDS NAMED OTHER THAN AS DETAILED IN THE ORDER. DENVER TRACON HAS REQUESTED SID NAMES CORRESPONDING WITH WAYPOINT NAMES AT OUTER BOUNDARY OF DENVER TRACON/DENVER ARTCC AIRSPACE.

4. Equivalent Level of Safety Provided:
1. THE REQUESTED NAMING CONVENTION REINFORCES THE OPERATIONAL HABITS USED TODAY BY PILOTS AND CONTROLLERS IN THE DENVER TERMINAL AREA.
2. ATC HAS DETAILED IN ATTACHED MEMO EXTENSIVE JUSTIFICATION FOR REQUESTED DEVIATION FROM SID NAMING CONVENTION.

5. How Relocation or Additional Facilities Will Affect Waiver Requirement:
NA

6. Coordination With User Organizations *(Specify)*:
AJV-354_____

7. SUBMITTED BY

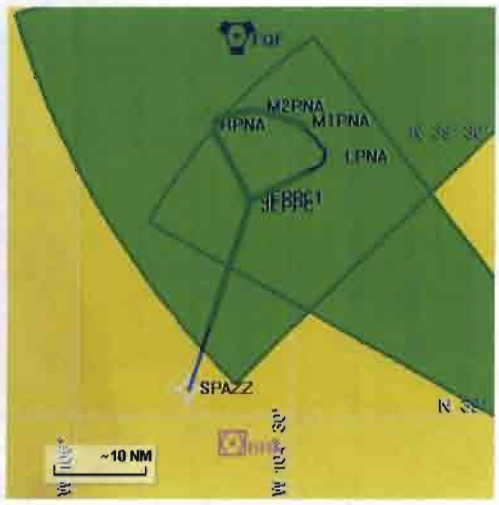
DATE:	Office Identification:	Title:	Signature:
	AJV-35	**MANAGER, TERMINAL PRODUCTS GROUP**	**GREGORY YAMAMOTO**

8. CONTINUATION
Comments:

9. AFS ACTION		Approved
		Disapproved
		Not Required

Comments:

Date:	Routing Symbol:	Signature:



Name:	Martha Dunn
Project Name:	KDEN SPAZZ SID
Output File:	KDEN SPAZZ1 SID JEPPC SPAZZ 20120913_0909
Procedure Name:	SPAZZ1
Software:	RNAV-Pro™
Version:	2.36v
Date/Time:	9/13/2012 9:09:28 AM
Input File:	KDEN_PNA_JEPPC_SPAZZ_10000-CCW.txt
Databases:	AVNIS Date: 02/07/2012
	Obstacle Date: 08/26/2011
	NFD Date: 09/30/2010
	DTED® (MAX) Date: 2002

Results Summary:

Flyability	✓
DME/DME	✓
Radars	✓
Comms	?
TERPS	?

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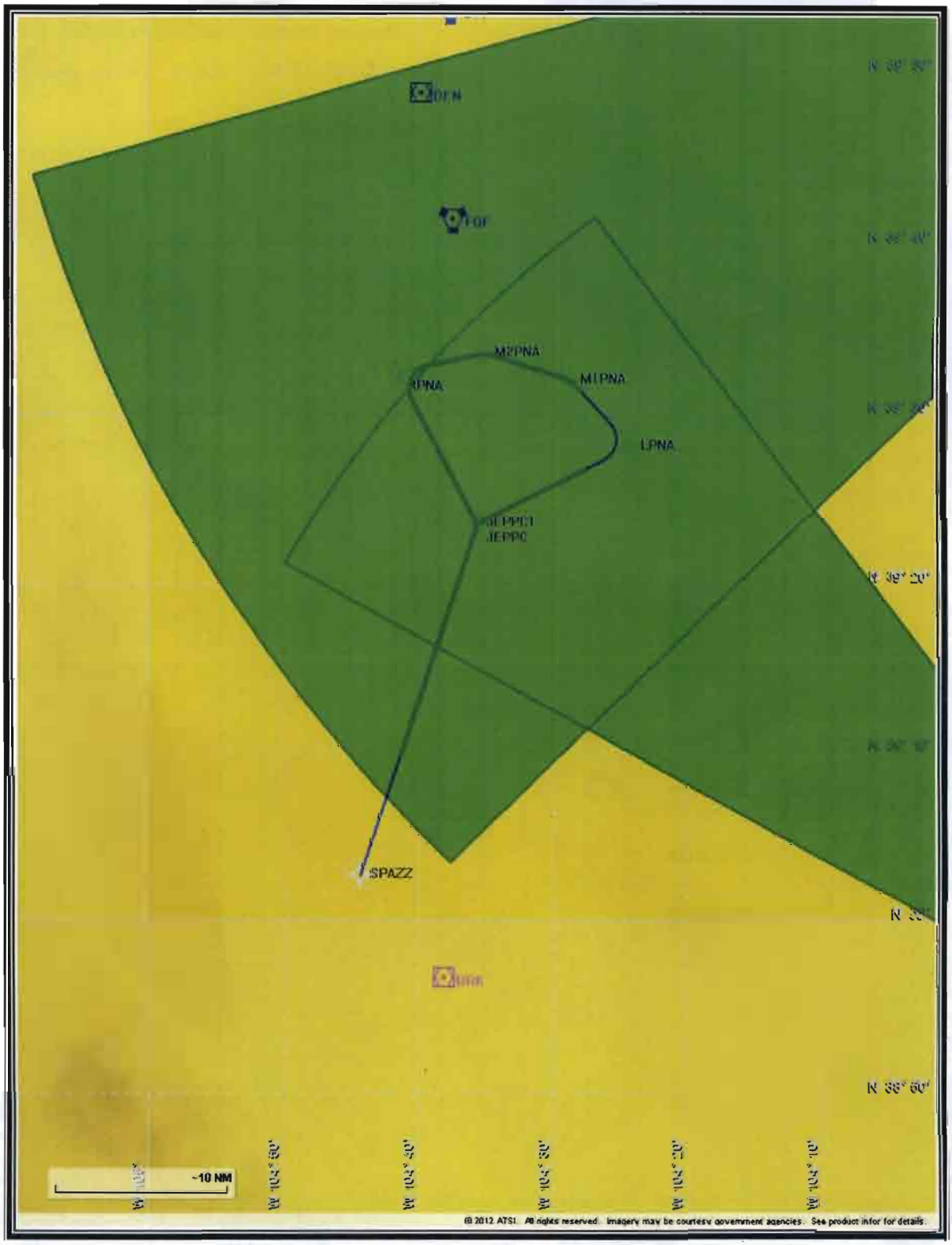
DEN
FQF
M2PNA
M1PNA
LPNA
JEPPC1
JEPPC
SPAZZ
~10 NM
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Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
JEPPC	WP	N 39° 23' 33.92" W 104° 35' 32.85"	10000.0	VNAV	210.0	Fly Over	TF
LPNA	WP	N 39° 28' 7.62" W 104° 24' 3.59"	10000.0	VNAV	210.0	Fly By	TF
M1PNA	WP	N 39° 31' 58.34" W 104° 28' 32.47"	10000.0	VNAV	210.0	Fly By	TF
M2PNA	WP	N 39° 33' 33.70" W 104° 34' 54.61"	10000.0	VNAV	210.0	Fly By	TF
RPNA	WP	N 39° 32' 28.00" W 104° 41' 27.07"	10000.0	VNAV	210.0	Fly By	TF
JEPPC1	WP	N 39° 23' 33.92" W 104° 35' 32.85"	10000.0	VNAV	210.0	Fly By	TF
SPAZZ	WP	N 39° 2' 39.07" W 104° 44' 12.98"	17000.0	VNAV	210.0	Fly Over	TF

Flyability

Return To Summary

Settings:

Flight Type: Departure with PNA
Selected Airport: KDEN
Aircraft Category: Cat D
Climb Gradient: *None assigned*
Ground Speeds:

Table:

200.0 Kts up to **11000.0 Ft.**
240.0 Kts up to **18000.0 Ft.**
260.0 Kts up to **24000.0 Ft.**
340.0 Kts up to **99900.0 Ft.**

Wind Settings: *None assigned*
Descent During a Turn: Allowed
VNAV Mode: Flight Plan

Entire track is fly-able

DME/DME

Return To Summary

Settings:

RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.558 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: VOR/DME , VORTAC , TACAN , and User
DME Include Angles: 30 to 150
Critical DMEs: Allowed
DoD Facilities: Not included
Foreign Facilities: Not included
Low & Terminal DMEs: Included
Flight Check DMEs: Selected
Higher Altitudes: Evaluated
Near Maximum Altitude: Evaluated
Automatic ESVs: Enabled w/ limit Alt/Distance (Reduce Criticals)

Total Number of DMEs Used: 7

Maximum DME Error: 0.801 NM.

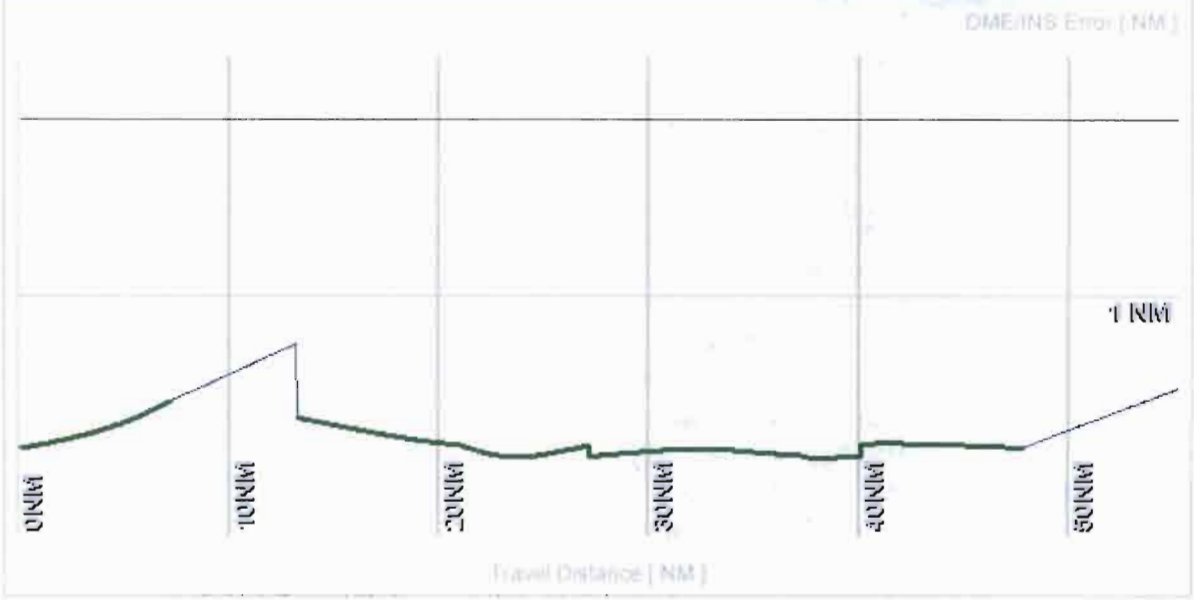
No Critical DMEs were found.

Available DMEs: DEN, DVV, FQF, HGO, BJC, BRK, AKO

Disabled DMEs: BVR

DME/DME (Continued.)

Return To Summary



DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon/MAGVAR	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	DVV	N 39° 53' 40.88" W 104° 37' 27.61" E 11	H	Database	NO	1.071	Enabled	41.2 %	39.1 %
2	HGO	N 38° 49' 3.00" W 103° 37' 17.00" E 12	H + ESV	User	NO	1.087	Enabled	37.6 %	36.4 %
3	BJC	N 39° 54' 46.87" W 105° 8' 20.47" E 11	H	Database	NO	1.023	Enabled	26.6 %	25.2 %
4	FQF	N 39° 41' 24.50" W 104° 37' 15.50" E 11	H	Database	NO	0.801	Enabled	18.9 %	17.9 %
5	BRK	N 38° 56' 40.22" W 104° 38' 0.48" E 0	L	Database	NO	0.801	Enabled	13.1 %	14.8 %
6	AKO	N 40° 9' 19.99" W 103° 10' 46.96" E 13	H + ESV	User	NO	0.824	Enabled	14.2 %	16.2 %
7	DEN	N 39° 48' 45.05" W 104° 39' 38.66" E 11	H	Database	NO	0.801	Enabled	1.4 %	1.6 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0	HGO	DVV	DEN	FQF		
8.1	HGO	DVV	DEN	FQF	BJC	
13.5	HGO	DVV	DEN	FQF	BJC	
18.7	HGO	DVV	DEN	FQF	BJC	
22.4	HGO	DVV	DEN	FQF	BJC	
32.6	HGO	DVV	DEN	BRK	AKO	FQF
45.1	AKO	FQF	DEN	BRK		

DME/DME (Continued.)

Return To Summary

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 39° 26' 50.26" W 104° 27' 18.93"	N 39° 31' 19.86" W 104° 27' 47.13"	6.1
	VOR: BRK	Available from N 39° 26' 50.26" W 104° 27' 18.93" to N 39° 31' 19.86" W 104° 27' 47.13"	
	VOR: BVR	Available from N 39° 26' 50.26" W 104° 27' 18.93" to N 39° 31' 19.86" W 104° 27' 47.13"	
	VOR: DEN	Available from N 39° 26' 50.26" W 104° 27' 18.93" to N 39° 31' 19.86" W 104° 27' 47.13"	
	VOR: DVV	Available from N 39° 26' 50.26" W 104° 27' 18.93" to N 39° 31' 19.86" W 104° 27' 47.13"	
	VOR: FQF	Available from N 39° 26' 50.26" W 104° 27' 18.93" to N 39° 31' 19.86" W 104° 27' 47.13"	
	VOR: BJC	Available from N 39° 30' 40.33" W 104° 27' 0.82" to N 39° 31' 19.86" W 104° 27' 47.13"	
2	N 39° 9' 38.31" W 104° 41' 19.74"	N 39° 2' 39.09" W 104° 44' 12.97"	7.3
	VOR: BRK	Available from N 39° 9' 38.31" W 104° 41' 19.74" to N 39° 2' 39.09" W 104° 44' 12.97"	
	VOR: DEN	Available from N 39° 9' 38.31" W 104° 41' 19.74" to N 39° 8' 44.96" W 104° 41' 41.82"	
	VOR: FCS	Available from N 39° 9' 38.31" W 104° 41' 19.74" to N 39° 2' 39.09" W 104° 44' 12.97"	
	VOR: FQF	Available from N 39° 9' 38.31" W 104° 41' 19.74" to N 39° 2' 39.09" W 104° 44' 12.97"	

User DMEs

#	Name	Lat/Lon/MAGVAR	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	AKO	N 40° 9' 19.99" W 103° 10' 46.96" E 13	H	4622.8	114.40	AKO	Used
	ESV:	Bearing [True]: 226.0° to 255.0° Bearing [Mag]: 213.0° to 242.0°		Arc Distance: Out to 94.0 NM Altitude: 11700.0 to 20000.0 Ft.			

DME/DME (Continued.)

Return To Summary

User DMEs (Continued.)

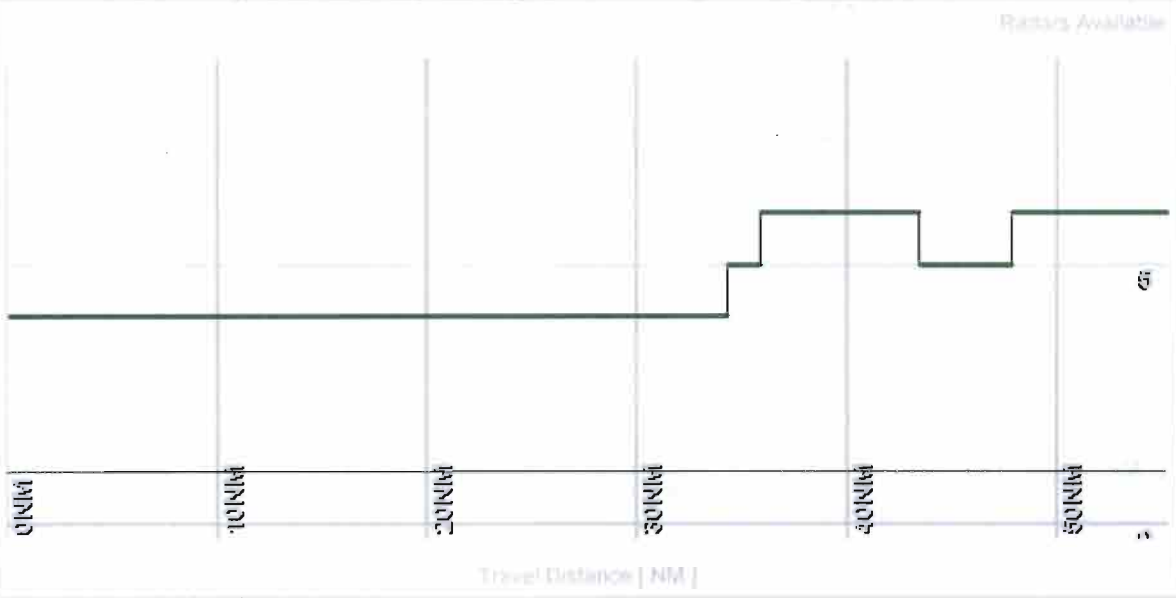
#	Name	Lat/Lon/MAGVAR	Range	Elevation [Ft]	Frequency	Replaces:	Status
2	HGO	N 38° 49' 3.00" W 103° 37' 17.00" E 12	H	5233.0	112.10	HGO	Used

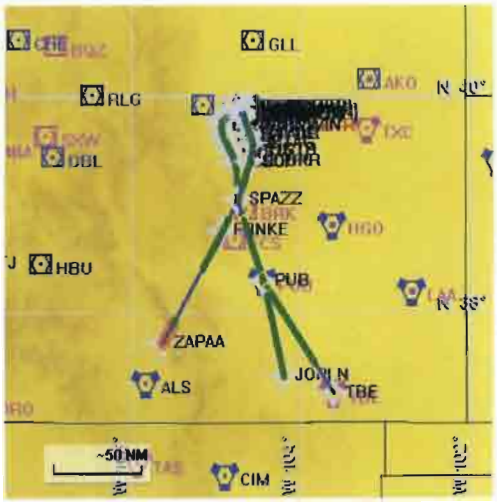
Auto ESV:	Bearing [True]: 300.0° to 324.0° Bearing [Mag]: 288.0° to 312.0°	Arc Distance: Out to 65.0 NM Altitude: 9900.0 to 20000.0 Ft.

Radar Analysis

Return To Summary

Settings: **Radar Types:** ARSR and ASR





Name:	Martha Dunn
Project Name:	KDEN
Output File:	KDEN SPAZZ1 SID RW08 ZAPAA 20120829_1051
Procedure Name:	SPAZZ1
Software:	RNAV-Pro™
Version:	2.36v
Date/Time:	8/29/2012 10:51:23 AM
Input File:	KDEN SPAZZ SID RW08 ZAPAA 2012-0829.txt
Databases:	AVNIS Date: 02/07/2012
	Obstacle Date: 08/26/2011
	NFD Date: 09/30/2010
	DTED® (MAX) Date: 2002

Results Summary:

Flyability	✓ **Please Check Flyability Results**
DME/DME	✓
Radars	✓
Comms	?
TERPS	?

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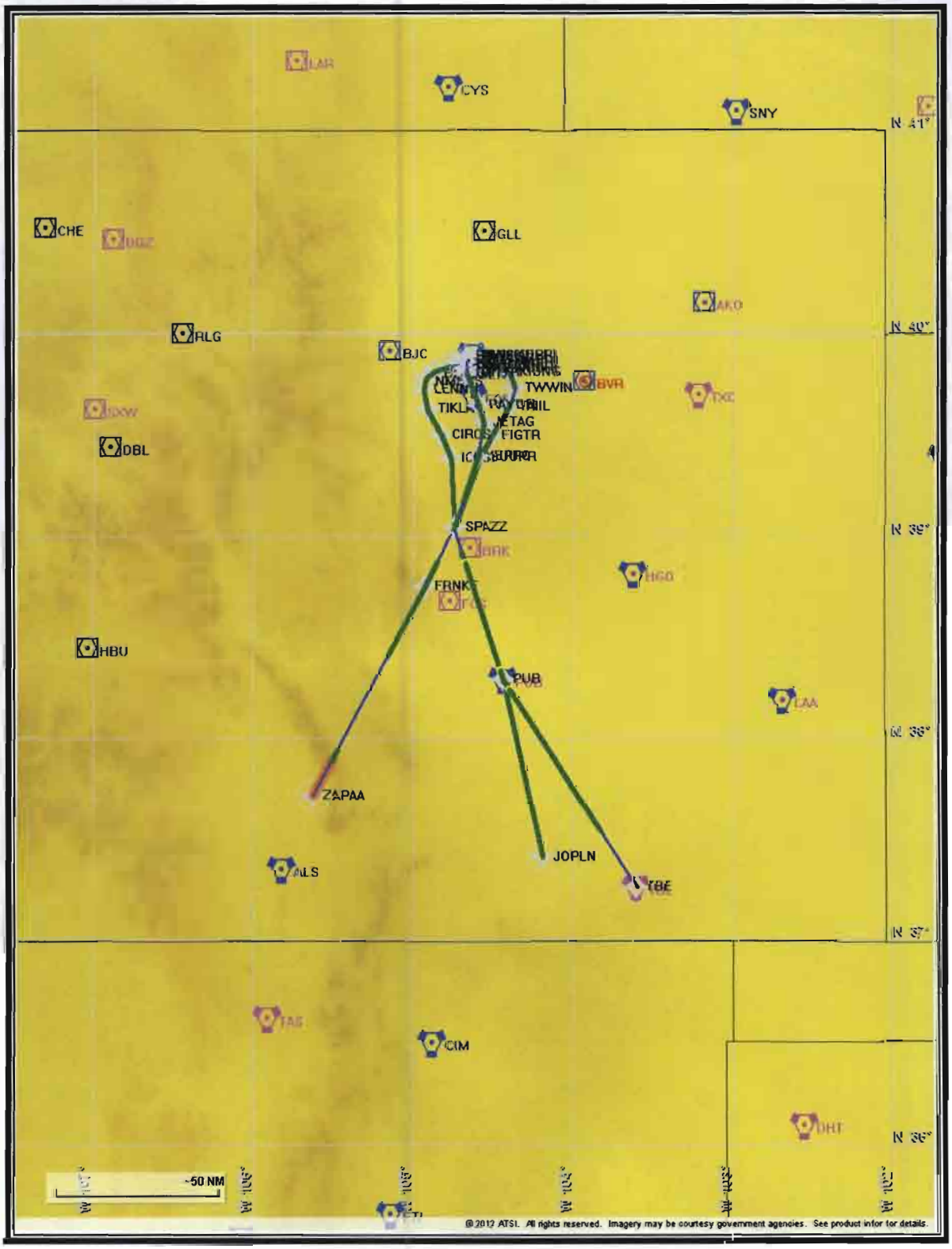
LAR
CYS
SNY
N 41°
CHE
GLL
AKO
N 40°
RLG
BJC
TWWIN
BVR
TXC
TIKLA
ETAG
CIROS
FIGTR
DBL
SPAZZ
N 39°
HGO
FRNKE
HBU
PUB
LAA
N 38°
ZAPAA
JOPLN
ALS
TBE
N 37°
TAS
CIM
DHT
N 36°
~50 NM
W 106°
W 104°
W 102°
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Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
RW08(A...	WP	N 39° 52' 39.20" W 104° 39' 44.03"	5354.3	VNAV	0.0	Fly By	TF
RW26(D...	WP	N 39° 52' 38.08" W 104° 37' 10.15"	5329.4	VNAV	130.0	Fly Over	VI
GH08:	WP	N 39° 52' 37.42" W 104° 35' 42.98"	5934.0	VNAV	145.0	Fly By	CF - 113.2°
KIDNG	WP	N 39° 48' 37.67" W 104° 23' 39.58"	8728.0	VNAV	180.0	Fly By	TF
TWWIN	WP	N 39° 43' 40.90" W 104° 21' 32.89"	10158.0	VNAV	180.0	Fly By	TF
TAIIL	WP	N 39° 38' 16.75" W 104° 24' 1.83"	11734.0	VNAV	180.0	Fly By	TF
FIGTR	WP	N 39° 29' 43.58" W 104° 30' 24.31"	14000.0	VNAV	210.0	Fly By	TF
SUUPR	WP	N 39° 23' 21.73" W 104° 34' 38.07"	16000.0	VNAV	210.0	Fly By	TF
SPAZZ	WP	N 39° 2' 39.07" W 104° 44' 12.98"	17000.0	VNAV	210.0	Fly By	TF
FRNKE	WP	N 38° 45' 5.00" W 104° 55' 7.39"	17000.0	VNAV	210.0	Fly By	TF
ZAPAA	WP	N 37° 43' 15.85" W 105° 37' 22.70"	17000.0	VNAV	210.0	Fly Over	TF

Climb Gradient:

Table:

475.0 Ft/NM up to **5934.0 Ft MSL**

275.0 Ft/NM up to **16000.0 Ft MSL**

Flyability

Return To Summary

Settings:

Flight Type: Runway Departure
Selected Airport: KDEN
Aircraft Category: Cat D
Climb Gradient:

Table:
475.0 Ft/NM up to **5934.0 Ft MSL**
275.0 Ft/NM up to **16000.0 Ft MSL**

Ground Speeds:
Departure: **120.0 Kts** out to **10.0 NM**
Table:
200.0 Kts up to **11000.0 Ft.**
240.0 Kts up to **18000.0 Ft.**
260.0 Kts up to **24000.0 Ft.**
340.0 Kts up to **99900.0 Ft.**

Wind Settings: *None assigned*
Descent During a Turn: Allowed
VNAV Mode: Flight Plan

Required IAS at Fly-By WP KIDNG could not be reached with given A/C acceleration performance.

Aircraft ALTITUDE at Fly-By WP FIGTR too high.

Flight Track comes into contact with terrain. Minimum AGL along route was -7.78 Ft.
Flight Track contacted terrain (DTED lvl 0 max) between AER and DER or within 2/3 NM of DER.

DME/DME

Return To Summary

Settings:

RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.165 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: VOR/DME , VORTAC , TACAN , and User
DME Include Angles: 30 to 150
Critical DMEs: Allowed
DoD Facilities: Not included
Foreign Facilities: Not included
Low & Terminal DMEs: Included
Flight Check DMEs: Selected
Higher Altitudes: Evaluated
Near Maximum Altitude: Evaluated
Minimum MSL DMEs Avail: 6145 Ft.

Total Number of DMEs Used: 10

Maximum DME Error: 1.621 NM.

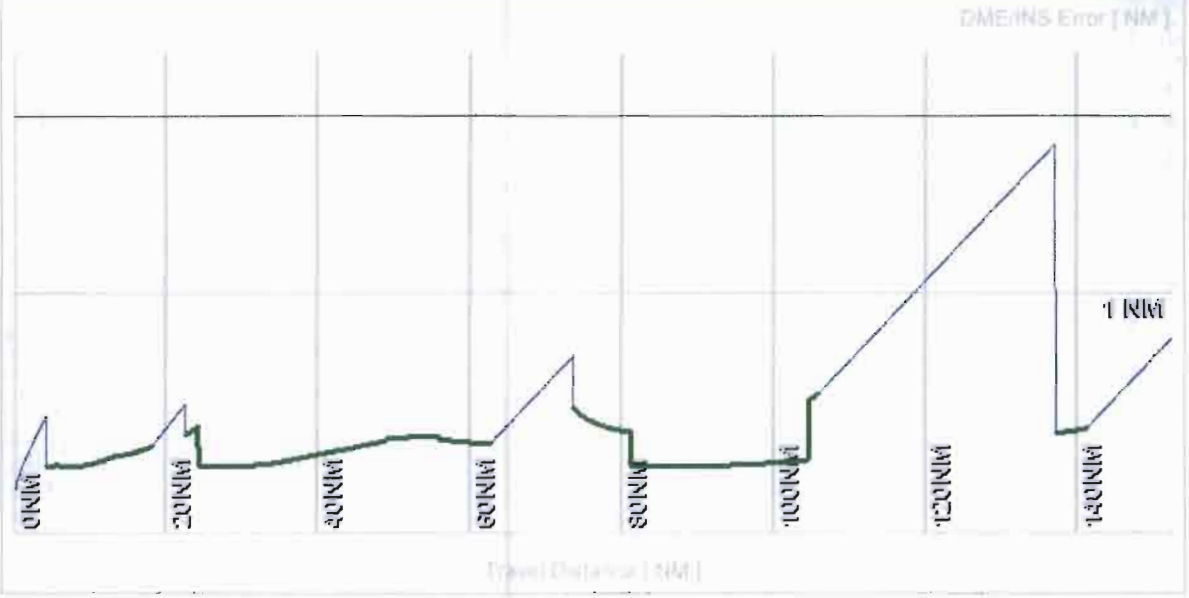
2 Critical DMEs were found.

Available DMEs: FQF, BJC, DEN, DVV, AKO, BRK, LAA, HGO, PUB, ALS

Disabled DMEs: BVR

DME/DME (Continued.)

Return To Summary



DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon/MAGVAR	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	BJC	N 39° 54' 46.87" W 105° 8' 20.47" E 11	H	Database	NO	1.621	Enabled	1.7 %	0.9 %
2	FQF	N 39° 41' 24.50" W 104° 37' 15.50" E 11	H	Database	NO	1.621	Enabled	23.1 %	19.1 %
3	DVV	N 39° 53' 40.88" W 104° 37' 27.61" E 11	H	Database	NO	1.621	Enabled	15.6 %	11.6 %
4	AKO	N 40° 9' 19.99" W 103° 10' 46.96" E 13	H + ESV	User	NO	1.621	Enabled	18.7 %	20.8 %
5	DEN	N 39° 48' 45.05" W 104° 39' 38.66" E 11	H	Database	NO	1.621	Enabled	8.9 %	9.9 %
6	LAA	N 38° 11' 49.53" W 102° 41' 15.12" E 12	H + ESV	User	NO	1.621	Enabled	12.4 %	13.8 %
7	BRK	N 38° 56' 40.22" W 104° 38' 0.48" E 0	L	Database	NO	1.621	Enabled	18.3 %	20.3 %
8	PUB	N 38° 17' 39.32" W 104° 25' 46.01" E 13	H + ESV	User	YES	**2.120**	Enabled	17.0 %	18.9 %
9	HGO	N 38° 49' 3.00" W 103° 37' 17.00" E 12	H + ESV	User	NO	1.391	Enabled	0.7 %	0.8 %
10	ALS	N 37° 20' 56.97" W 105° 48' 55.93" E 13	H	Database	YES	**2.136**	Enabled	2.4 %	2.7 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0						
2.0						
2.9	BJC	FQF	DVV	DEN		
12.5	BJC	FQF	DVV	DEN		
17.7	DEN	FQF	DVV			
23.5	DEN	FQF	DVV	AKO	BRK	
33.7	DEN	FQF	DVV	AKO	BRK	
40.6	DEN	FQF	LAA	AKO	BRK	DVV
62.6	PUB	FQF	LAA	HGO	BRK	
82.3	PUB	ALS	LAA	HGO	BRK	
141.0	PUB	ALS	LAA	HGO	BRK	

DME/DME (Continued.)

Return To Summary

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 39° 52' 39.20" W 104° 39' 44.03"	N 39° 52' 17.92" W 104° 34' 40.49"	4.0
	VOR: BJC	Available from N 39° 52' 39.20" W 104° 39' 44.03" to N 39° 52' 17.92" W 104° 34' 40.49"	
	VOR: BVR	Available from N 39° 52' 39.20" W 104° 39' 44.03" to N 39° 52' 17.92" W 104° 34' 40.49"	
	VOR: DEN	Available from N 39° 52' 39.20" W 104° 39' 44.03" to N 39° 52' 17.92" W 104° 34' 40.49"	
	VOR: DVV	Available from N 39° 52' 39.20" W 104° 39' 44.03" to N 39° 52' 17.92" W 104° 34' 40.49"	
	VOR: FQF	Available from N 39° 52' 39.20" W 104° 39' 44.03" to N 39° 52' 17.92" W 104° 34' 40.49"	
	VOR: GLL	Available from N 39° 52' 39.20" W 104° 39' 44.03" to N 39° 52' 17.92" W 104° 34' 40.49"	
2	N 39° 43' 55.22" W 104° 21' 41.37"	N 39° 39' 45.01" W 104° 23' 21.23"	4.4
	VOR: BJC	Available from N 39° 43' 55.22" W 104° 21' 41.37" to N 39° 39' 45.01" W 104° 23' 21.23"	
	VOR: BVR	Available from N 39° 43' 55.22" W 104° 21' 41.37" to N 39° 39' 45.01" W 104° 23' 21.23"	
	VOR: DEN	Available from N 39° 43' 55.22" W 104° 21' 41.37" to N 39° 39' 45.01" W 104° 23' 21.23"	
	VOR: DVV	Available from N 39° 43' 55.22" W 104° 21' 41.37" to N 39° 39' 45.01" W 104° 23' 21.23"	
	VOR: FQF	Available from N 39° 43' 55.22" W 104° 21' 41.37" to N 39° 39' 45.01" W 104° 23' 21.23"	
3	N 39° 2' 50.13" W 104° 44' 8.05"	N 38° 53' 2.55" W 104° 50' 11.41"	10.9
	VOR: BRK	Available from N 39° 2' 50.13" W 104° 44' 8.05" to N 38° 53' 2.55" W 104° 50' 11.41"	
	VOR: FCS	Available from N 39° 2' 50.13" W 104° 44' 8.05" to N 38° 53' 2.55" W 104° 50' 11.41"	
	VOR: FQF	Available from N 39° 2' 50.13" W 104° 44' 8.05" to N 39° 1' 48.25" W 104° 44' 44.00"	

DME/DME (Continued.)

Return To Summary

Inertial Drift Segments (Continued.)

#	Start Location	End Location	Length [NM]
4	N 38° 24' 31.49" W 105° 9' 19.52"	N 37° 56' 58.08" W 105° 28' 7.83"	31.3
	VOR: FCS	Available from N 38° 24' 31.49" W 105° 9' 19.52" to N 38° 10' 39.94" W 105° 18' 49.19"	
	VOR: PUB	Available from N 38° 24' 31.49" W 105° 9' 19.52" to N 38° 14' 14.97" W 105° 16' 22.34"	
	VOR: ALS	Available from N 37° 57' 19.25" W 105° 27' 53.49" to N 37° 56' 58.08" W 105° 28' 7.83"	
5	N 37° 53' 15.72" W 105° 30' 38.29"	N 37° 43' 18.96" W 105° 37' 20.61"	11.3
	VOR: ALS	Available from N 37° 53' 15.72" W 105° 30' 38.29" to N 37° 43' 18.96" W 105° 37' 20.61"	

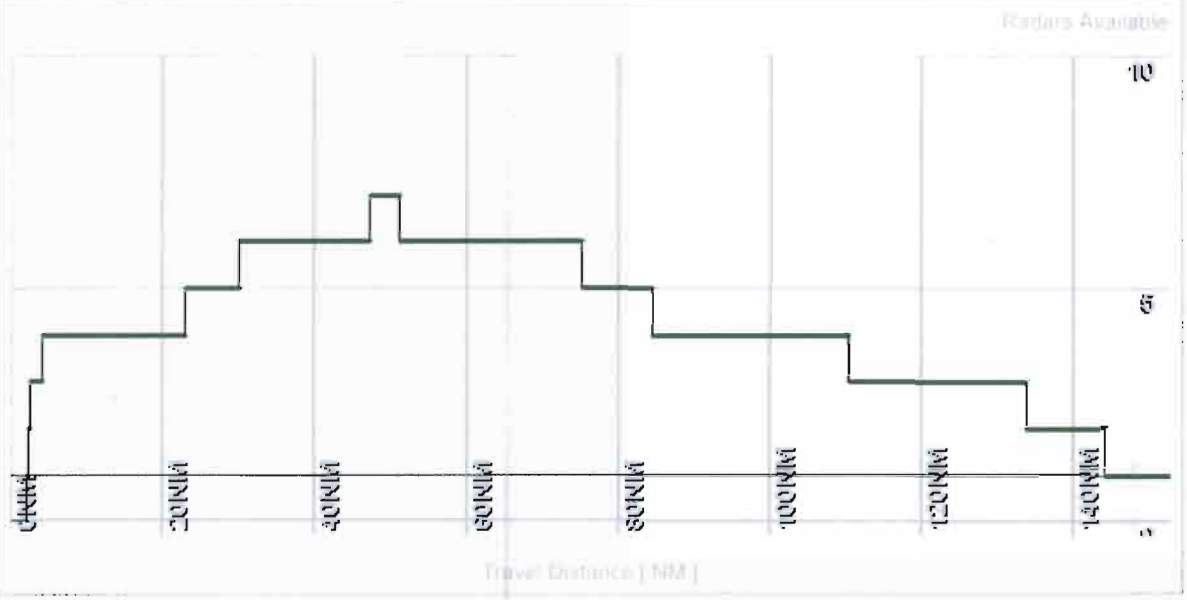
User DMEs

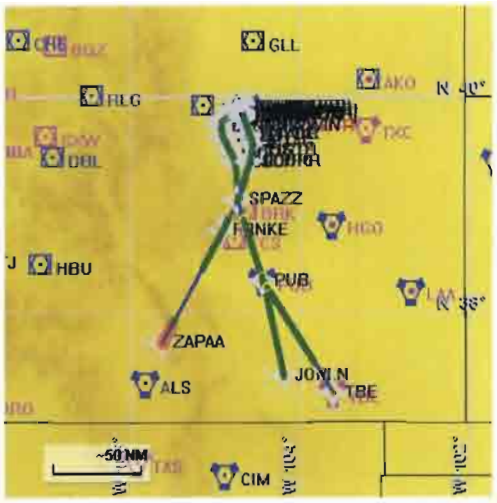
#	Name	Lat/Lon/MAGVAR	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	AKO	N 40° 9' 19.99" W 103° 10' 46.96" E 13	H	4622.8	114.40	AKO	Used
	ESV:	Bearing [True]: 226.0° to 255.0° Bearing [Mag]: 213.0° to 242.0°		Arc Distance: Out to 94.0 NM Altitude: 11700.0 to 20000.0 Ft.			
2	LAA	N 38° 11' 49.53" W 102° 41' 15.12" E 12	H	3944.0	116.90	LAA	Used
	ESV:	Bearing [True]: 234.0° to 306.0° Bearing [Mag]: 222.0° to 294.0°		Arc Distance: Out to 119.0 NM Altitude: 16300.0 to 22000.0 Ft.			
3	HGO	N 38° 49' 3.00" W 103° 37' 17.00" E 12	H	5233.0	112.10	HGO	Used
	ESV:	Bearing [True]: 194.0° to 278.0° Bearing [Mag]: 182.0° to 266.0°		Arc Distance: Out to 91.0 NM Altitude: 16900.0 to 20000.0 Ft.			
4	PUB	N 38° 17' 39.32" W 104° 25' 46.01" E 13	H	4759.4	116.70	PUB	Used
	ESV:	Bearing [True]: 239.0° to 285.0° Bearing [Mag]: 226.0° to 272.0°		Arc Distance: Out to 61.0 NM Altitude: 17000.0 to 20000.0 Ft.			

Radar Analysis

Return To Summary

Settings: **Radar Types:** ARSR and ASR





Name:	Martha Dunn
Project Name:	KDEN
Output File:	KDEN SPAZZ1 SID RW17R TBE 20120829_1053
Procedure Name:	SPAZZ1
Software:	RNAV-Pro™
Version:	2.36v
Date/Time:	8/29/2012 10:53:03 AM
Input File:	KDEN SPAZZ1 SID RW17R TBE_2012-0829.txt
Databases:	AVNIS Date: 02/07/2012
	Obstacle Date: 08/26/2011
	NFD Date: 09/30/2010
	DTED® (MAX) Date: 2002

Results Summary:

Flyability	✓ **Please Check Flyability Results**
DME/DME	✓
Radars	✓
Comms	?
TERPS	?

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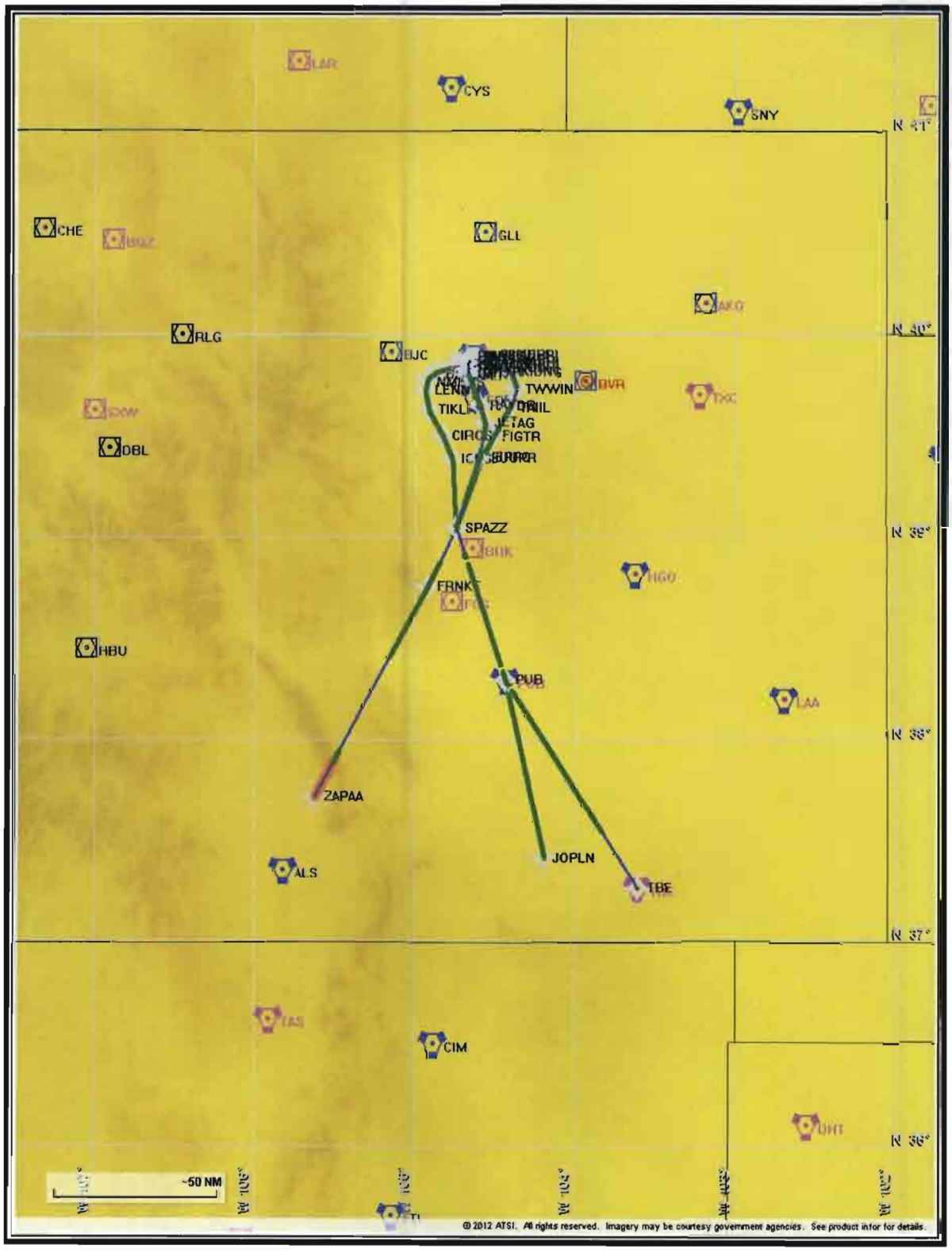
LAR
CYS
SNY
CHE
GLL
RLG
BJC
TWWIN
BVR
TXC
DBL
SPAZZ
FRNK
HBU
PUB
LAA
ZAPAA
JOPLN
ALS
TBE
CIM
DHT
~50 NM
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Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
RW17R(...	WP	N 39° 51' 40.48" W 104° 39' 36.56"	5377.9	VNAV	0.0	Fly By	TF
RW35L(...	WP	N 39° 49' 41.93" W 104° 39' 37.98"	5468.8	VNAV	120.0	Fly Over	VI
GH17R	WP	N 39° 48' 15.40" W 104° 39' 39.02"	5934.0	VNAV	120.0	Fly By	CF - 159.9°
RAYDR	WP	N 39° 38' 51.15" W 104° 35' 10.81"	8436.0	VNAV	180.0	Fly By	TF
JETAG	WP	N 39° 33' 30.07" W 104° 33' 18.02"	9821.0	VNAV	180.0	Fly By	TF
JEPPC	WP	N 39° 23' 33.92" W 104° 35' 32.85"	12341.0	VNAV	210.0	Fly By	TF
SPAZZ	WP	N 39° 2' 39.07" W 104° 44' 12.98"	17000.0	VNAV	210.0	Fly By	TF
PUB	WP	N 38° 17' 39.32" W 104° 25' 46.01"	17000.0	VNAV	210.0	Fly By	TF
TBE	WP	N 37° 15' 31.17" W 103° 36' 0.20"	17000.0	VNAV	210.0	Fly Over	TF

Climb Gradient:

Table:

350.0 Ft/NM up to **5934.0 Ft MSL**

250.0 Ft/NM up to **15000.0 Ft MSL**

Flyability

Return To Summary

Settings:

Flight Type: Runway Departure
Selected Airport: KDEN
Aircraft Category: Cat D
Climb Gradient:

Table:
350.0 Ft/NM up to **5934.0 Ft MSL**
250.0 Ft/NM up to **15000.0 Ft MSL**

Ground Speeds:

Departure: **120.0 Kts** out to **10.0 NM**
Table:
200.0 Kts up to **11000.0 Ft.**
240.0 Kts up to **18000.0 Ft.**
260.0 Kts up to **24000.0 Ft.**
340.0 Kts up to **99900.0 Ft.**

Wind Settings: *None assigned*
Descent During a Turn: Allowed
VNAV Mode: Flight Plan

Required IAS at Fly-By WP RAYDR could not be reached with given A/C acceleration performance.

Flight Track comes into contact with terrain. Minimum AGL along route was -42.05 Ft.
Flight Track contacted terrain (DTED lvl 0 max) between AER and DER or within 2/3 NM of DER.

DME/DME

Return To Summary

Settings:

RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.165 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: VOR/DME , VORTAC , TACAN , and User
DME Include Angles: 30 to 150
Critical DMEs: Allowed
DoD Facilities: Not included
Foreign Facilities: Not included
Low & Terminal DMEs: Included
Flight Check DMEs: Selected
Higher Altitudes: Evaluated
Near Maximum Altitude: Evaluated
Minimum MSL DMEs Avail: 5818 Ft.

Total Number of DMEs Used: 10

Maximum DME Error: 0.946 NM.

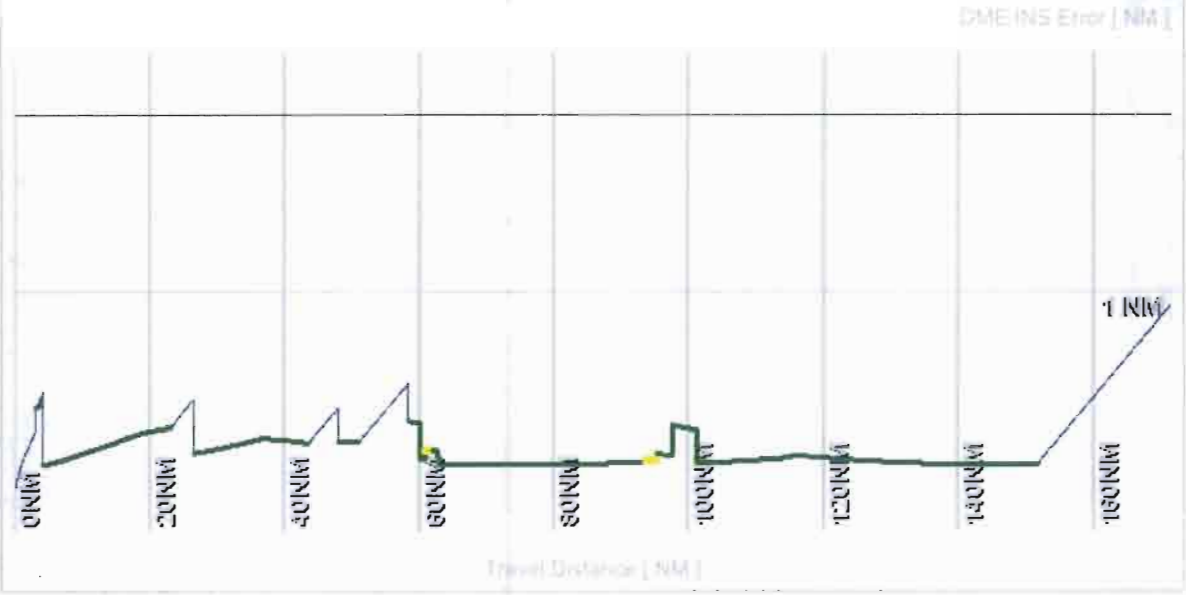
No Critical DMEs were found.

Available DMEs: DVV, FQF, BJC, DEN, AKO, BRK, LAA, PUB, HGO, TBE

Disabled DMEs: BVR

DME/DME (Continued.)

Return To Summary



DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon/MAGVAR	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	DVV	N 39° 53' 40.88" W 104° 37' 27.61" E 11	H	Database	NO	1.101	Enabled	16.7 %	11.6 %
2	FQF	N 39° 41' 24.50" W 104° 37' 15.50" E 11	H	Database	NO	0.946	Enabled	2.4 %	2.2 %
3	BJC	N 39° 54' 46.87" W 105° 8' 20.47" E 11	H	Database	NO	1.691	Enabled	15.9 %	11.1 %
4	AKO	N 40° 9' 19.99" W 103° 10' 46.96" E 13	H + ESV	User	NO	1.268	Enabled	9.1 %	10.0 %
5	DEN	N 39° 48' 45.05" W 104° 39' 38.66" E 11	H	Database	NO	0.946	Enabled	5.5 %	6.0 %
6	BRK	N 38° 56' 40.22" W 104° 38' 0.48" E 0	L	Database	NO	0.946	Enabled	13.0 %	14.3 %
7	LAA	N 38° 11' 49.53" W 102° 41' 15.12" E 12	H + ESV	User	NO	1.589	Enabled	26.0 %	28.6 %
8	PUB	N 38° 17' 39.32" W 104° 25' 46.01" E 13	H + ESV	User	NO	0.946	Enabled	27.7 %	30.4 %
9	HGO	N 38° 49' 3.00" W 103° 37' 17.00" E 12	H + ESV	User	NO	0.946	Enabled	27.0 %	29.7 %
10	TBE	N 37° 15' 31.17" W 103° 36' 0.20" E 12	L	Database	NO	1.406	Enabled	10.5 %	11.5 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0						
2.0	DVV	FQF				
3.3	DVV	FQF	BJC	DEN		
13.2	DVV	FQF	BJC	DEN		
18.4	DVV	FQF	BJC	DEN	AKO	BRK
28.6	DVV	FQF	BRK	DEN	AKO	
38.7	LAA	FQF	BRK	DEN	AKO	
50.1	LAA	FQF	BRK	PUB	HGO	
97.5	LAA	HGO	TBE	PUB		

DME/DME (Continued.)

Return To Summary

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 39° 51' 40.48" W 104° 39' 36.56"	N 39° 48' 40.90" W 104° 39' 38.71"	3.0
	VOR: BJC	Available from N 39° 51' 40.48" W 104° 39' 36.56" to N 39° 48' 40.90" W 104° 39' 38.71"	
	VOR: BVR	Available from N 39° 51' 40.48" W 104° 39' 36.56" to N 39° 48' 40.90" W 104° 39' 38.71"	
	VOR: DEN	Available from N 39° 51' 40.48" W 104° 39' 36.56" to N 39° 48' 40.90" W 104° 39' 38.71"	
	VOR: DVV	Available from N 39° 51' 40.48" W 104° 39' 36.56" to N 39° 48' 40.90" W 104° 39' 38.71"	
	VOR: FQF	Available from N 39° 51' 40.48" W 104° 39' 36.56" to N 39° 48' 40.90" W 104° 39' 38.71"	
	VOR: GLL	Available from N 39° 51' 40.48" W 104° 39' 36.56" to N 39° 50' 32.37" W 104° 39' 37.38"	
2	N 39° 47' 51.97" W 104° 39' 29.22"	N 39° 47' 35.06" W 104° 39' 21.14"	0.3
	VOR: BJC	Available from N 39° 47' 51.97" W 104° 39' 29.22" to N 39° 47' 35.06" W 104° 39' 21.14"	
	VOR: BVR	Available from N 39° 47' 51.97" W 104° 39' 29.22" to N 39° 47' 35.06" W 104° 39' 21.14"	
	VOR: DEN	Available from N 39° 47' 51.97" W 104° 39' 29.22" to N 39° 47' 35.06" W 104° 39' 21.14"	
	VOR: DVV	Available from N 39° 47' 51.97" W 104° 39' 29.22" to N 39° 47' 35.06" W 104° 39' 21.14"	
	VOR: FQF	Available from N 39° 47' 51.97" W 104° 39' 29.22" to N 39° 47' 35.06" W 104° 39' 21.14"	

DME/DME (Continued.)

Return To Summary

Inertial Drift Segments (Continued.)

#	Start Location	End Location	Length [NM]
3	N 39° 29' 14.30" W 104° 34' 15.86"	N 39° 26' 9.13" W 104° 34' 57.76"	3.1
	VOR: BJC	Available from N 39° 29' 14.30" W 104° 34' 15.86" to N 39° 26' 9.13" W 104° 34' 57.76"	
	VOR: BRK	Available from N 39° 29' 14.30" W 104° 34' 15.86" to N 39° 26' 9.13" W 104° 34' 57.76"	
	VOR: BVR	Available from N 39° 29' 14.30" W 104° 34' 15.86" to N 39° 26' 9.13" W 104° 34' 57.76"	
	VOR: DEN	Available from N 39° 29' 14.30" W 104° 34' 15.86" to N 39° 26' 9.13" W 104° 34' 57.76"	
	VOR: DVV	Available from N 39° 29' 14.30" W 104° 34' 15.86" to N 39° 26' 9.13" W 104° 34' 57.76"	
	VOR: FQF	Available from N 39° 29' 14.30" W 104° 34' 15.86" to N 39° 26' 9.13" W 104° 34' 57.76"	
4	N 39° 9' 40.77" W 104° 41' 18.63"	N 39° 5' 29.26" W 104° 43' 2.68"	4.4
	VOR: BRK	Available from N 39° 9' 40.77" W 104° 41' 18.63" to N 39° 5' 29.26" W 104° 43' 2.68"	
	VOR: DEN	Available from N 39° 9' 40.77" W 104° 41' 18.63" to N 39° 8' 47.42" W 104° 41' 40.72"	
	VOR: FCS	Available from N 39° 9' 40.77" W 104° 41' 18.63" to N 39° 5' 29.26" W 104° 43' 2.68"	
	VOR: FQF	Available from N 39° 9' 40.77" W 104° 41' 18.63" to N 39° 5' 29.26" W 104° 43' 2.68"	
5	N 39° 2' 32.22" W 104° 44' 3.74"	N 38° 55' 35.85" W 104° 41' 17.94"	7.3
	VOR: BRK	Available from N 39° 2' 32.22" W 104° 44' 3.74" to N 38° 55' 35.85" W 104° 41' 17.94"	
	VOR: FCS	Available from N 39° 2' 32.22" W 104° 44' 3.74" to N 38° 55' 35.85" W 104° 41' 17.94"	
	VOR: FQF	Available from N 39° 2' 32.22" W 104° 44' 3.74" to N 39° 1' 45.40" W 104° 43' 50.94"	
	VOR: PUB	Available from N 38° 55' 43.47" W 104° 41' 21.09" to N 38° 55' 35.85" W 104° 41' 17.94"	

DME/DME (Continued.)

Return To Summary

Inertial Drift Segments (Continued.)

#	Start Location	End Location	Length [NM]
6	N 37° 32' 24.63" W 103° 49' 21.85"	N 37° 15' 31.96" W 103° 36' 0.82"	19.9

VOR: TBE — Available from N 37° 32' 24.63" W 103° 49' 21.85" to N 37° 15' 31.96" W 103° 36' 0.82"

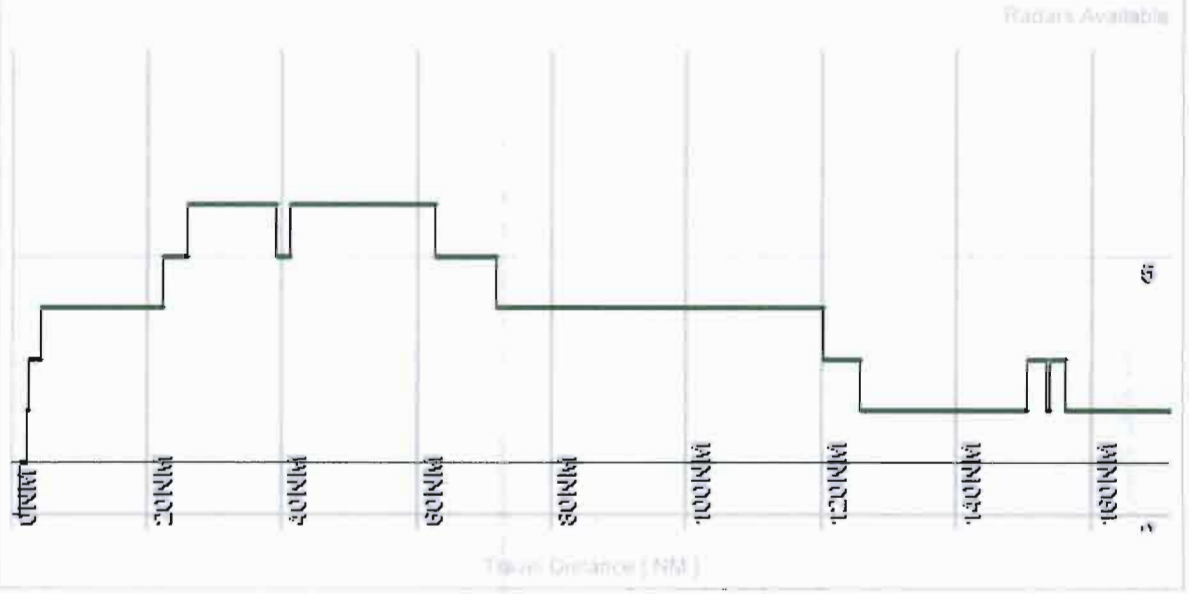
User DMEs

#	Name	Lat/Lon/MAGVAR	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	AKO	N 40° 9' 19.99" W 103° 10' 46.96" E 13	H	4622.8	114.40	AKO	Used
		ESV: Bearing [True]: 226.0° to 255.0° Bearing [Mag]: 213.0° to 242.0°			Arc Distance: Out to 94.0 NM Altitude: 11700.0 to 20000.0 Ft.		
2	LAA	N 38° 11' 49.53" W 102° 41' 15.12" E 12	H	3944.0	116.90	LAA	Used
		ESV: Bearing [True]: 234.0° to 306.0° Bearing [Mag]: 222.0° to 294.0°			Arc Distance: Out to 119.0 NM Altitude: 16300.0 to 22000.0 Ft.		
3	HGO	N 38° 49' 3.00" W 103° 37' 17.00" E 12	H	5233.0	112.10	HGO	Used
		ESV: Bearing [True]: 194.0° to 278.0° Bearing [Mag]: 182.0° to 266.0°			Arc Distance: Out to 91.0 NM Altitude: 16900.0 to 20000.0 Ft.		
4	PUB	N 38° 17' 39.32" W 104° 25' 46.01" E 13	H	4759.4	116.70	PUB	Used
		ESV: Bearing [True]: 239.0° to 285.0° Bearing [Mag]: 226.0° to 272.0°			Arc Distance: Out to 61.0 NM Altitude: 17000.0 to 20000.0 Ft.		

Radar Analysis

Return To Summary

Settings: **Radar Types:** ARSR and ASR



Name:	Martha Dunn
Project Name:	KDEN SPAZZ1
Output File:	KDEN SPAZZ1 SID RW17L RAYDR 20120829_1151
Procedure Name:	SPAZZ1
Software:	RNAV-Pro™
Version:	2.36v
Date/Time:	8/29/2012 11:51:26 AM
Input File:	KDEN SPAZZ SID RW17L RAYDR 20120829.txt
Databases:	AVNIS Date: 02/07/2012
	Obstacle Date: 08/26/2011
	NFD Date: 09/30/2010
	DTED® (MAX) Date: 2002

Results Summary:

Flyability	✓ **Please Check Flyability Results**
DME/DME	✓
Radars	✓
Comms	?
TERPS	?

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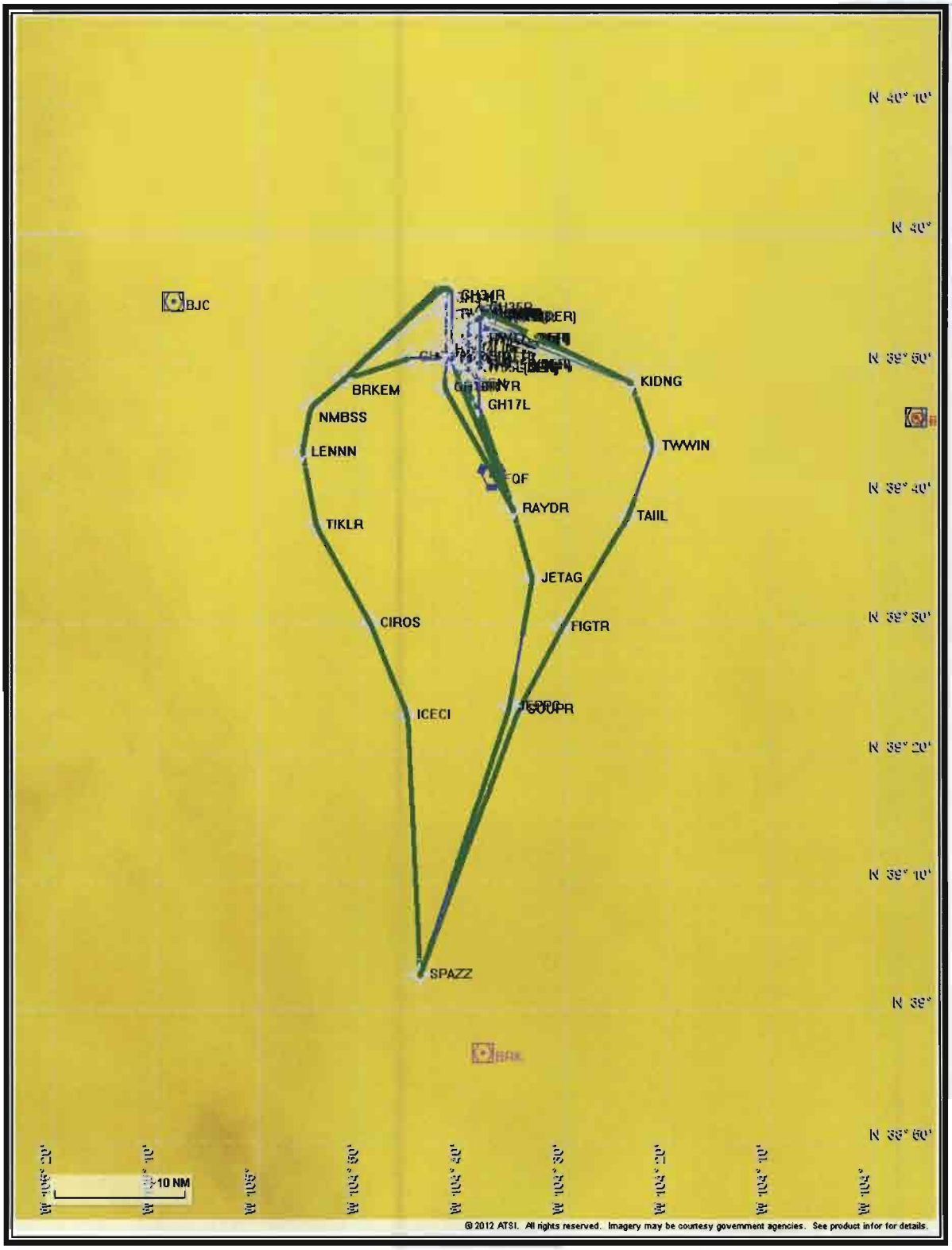
BJC
BRKEM
NMBSS
LENNN
TIKLR
CIROS
ICECI
SPAZZ
GH17L
KIDNG
TWWIN
TAIIL
RAYDR
JETAG
FIGTR
10 NM
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Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
RW17L(...	WP	N 39° 51' 53.83" W 104° 38' 28.70"	5328.1	VNAV	0.0	Fly By	TF
RW35R(...	WP	N 39° 49' 55.27" W 104° 38' 30.16"	5405.0	VNAV	120.0	Fly Over	VI
GH17L	WP	N 39° 46' 50.81" W 104° 38' 32.40"	5934.0	VNAV	120.0	Fly By	CF - 162.0°
RAYDR	WP	N 39° 38' 51.15" W 104° 35' 10.81"	8421.0	VNAV	200.0	Fly Over	TF

Climb Gradient:

Table:

350.0 Ft/NM up to **5934.0 Ft MSL**

250.0 Ft/NM up to **15000.0 Ft MSL**

Flyability

Return To Summary

Settings:

Flight Type: Runway Departure
Selected Airport: KDEN
Aircraft Category: Cat D
Climb Gradient:

Table:
350.0 Ft/NM up to **5934.0 Ft MSL**
250.0 Ft/NM up to **15000.0 Ft MSL**

Ground Speeds:

Departure: **120.0 Kts** out to **10.0 NM**
Table:
200.0 Kts up to **11000.0 Ft.**
240.0 Kts up to **18000.0 Ft.**
260.0 Kts up to **24000.0 Ft.**
340.0 Kts up to **99900.0 Ft.**

Wind Settings: *None assigned*
Descent During a Turn: Allowed
VNAV Mode: Flight Plan

Aircraft ALTITUDE at Fly-Over WP RAYDR too low.

Flight Track comes into contact with terrain. Minimum AGL along route was -19.67 Ft.
Flight Track contacted terrain (DTED lvl 0 max) between AER and DER or within 2/3 NM of DER.

DME/DME

Return To Summary

Settings:

RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.165 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: VOR/DME , VORTAC , TACAN , and User
DME Include Angles: 30 to 150
Critical DMEs: Allowed
DoD Facilities: Not included
Foreign Facilities: Not included
Low & Terminal DMEs: Included
Flight Check DMEs: Selected
Higher Altitudes: Evaluated
Near Maximum Altitude: Evaluated
Minimum MSL DMEs Avail: 6161 Ft.

Total Number of DMEs Used: 2

Maximum DME Error: 0.618 NM.

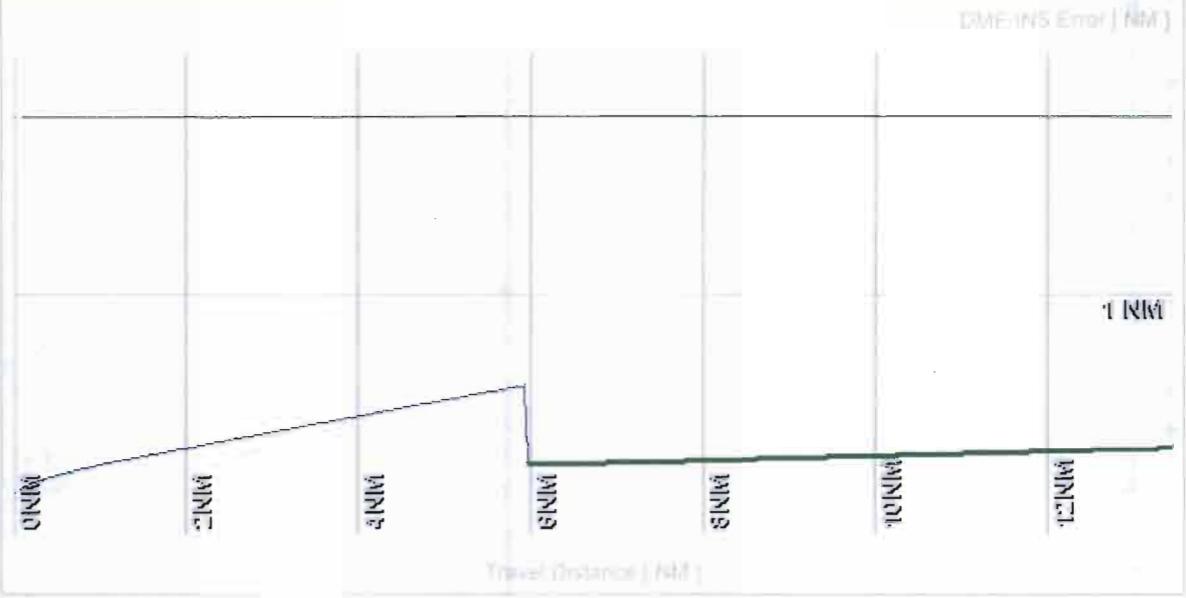
No Critical DMEs were found.

Available DMEs: DVV, FQF, BJC, DEN

Disabled DMEs: BVR

DME/DME (Continued.)

Return To Summary



DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon/MAGVAR	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	BJC	N 39° 54' 46.87" W 105° 8' 20.47" E 11	H	Database	NO	1.103	Enabled	51.5 %	55.9 %
2	DVV	N 39° 53' 40.88" W 104° 37' 27.61" E 11	H	Database	NO	1.101	Enabled	51.5 %	55.9 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0						
2.0	DVV	FQF				
4.9	DVV	FQF	DEN	BJC		

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 39° 51' 53.83" W 104° 38' 28.70"	N 39° 46' 0.43" W 104° 38' 12.44"	5.9

VOR: BJC	Available from N 39° 51' 53.83" W 104° 38' 28.70" to N 39° 46' 0.43" W 104° 38' 12.44"
VOR: BVR	Available from N 39° 51' 53.83" W 104° 38' 28.70" to N 39° 46' 0.43" W 104° 38' 12.44"
VOR: DEN	Available from N 39° 51' 53.83" W 104° 38' 28.70" to N 39° 46' 0.43" W 104° 38' 12.44"
VOR: DVV	Available from N 39° 51' 53.83" W 104° 38' 28.70" to N 39° 46' 0.43" W 104° 38' 12.44"
VOR: FQF	Available from N 39° 51' 53.83" W 104° 38' 28.70" to N 39° 46' 0.43" W 104° 38' 12.44"
VOR: GLL	Available from N 39° 51' 53.83" W 104° 38' 28.70" to N 39° 50' 26.33" W 104° 38' 29.78"

User DMEs

#	Name	Lat/Lon/MAGVAR	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	AKO	N 40° 9' 19.99" W 103° 10' 46.96" E 13	H	4622.8	114.40	AKO	Not Used

ESV:	Bearing [True]: 226.0° to 255.0° Bearing [Mag]: 213.0° to 242.0°	Arc Distance: Out to 94.0 NM Altitude: 11700.0 to 20000.0 Ft.

DME/DME (Continued.)

Return To Summary

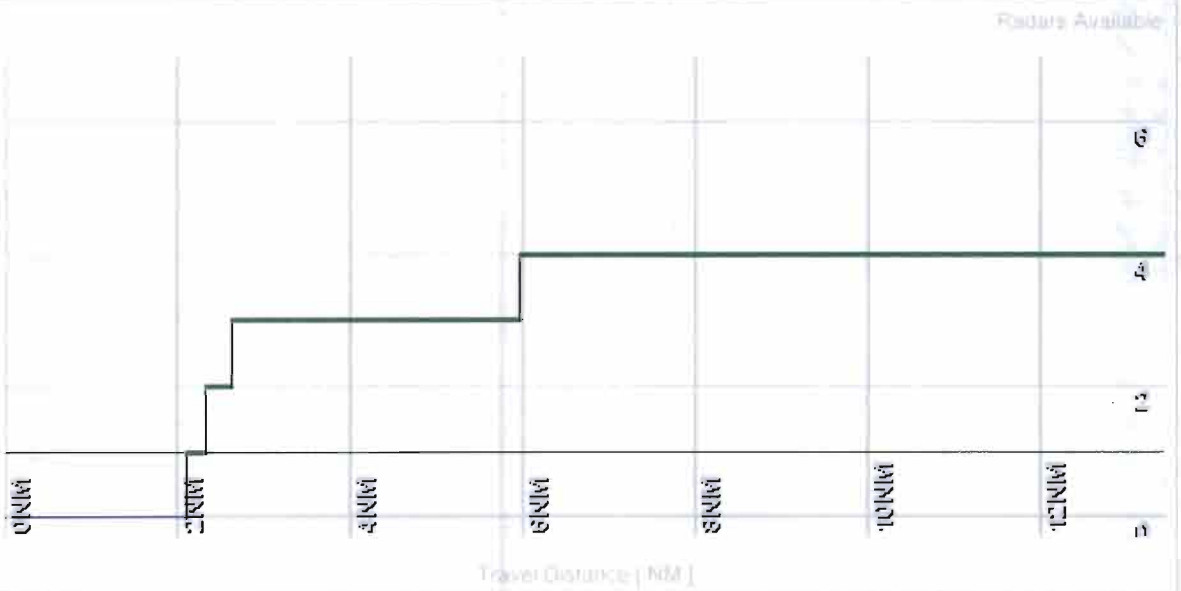
User DMEs (Continued.)

#	Name	Lat/Lon/MAGVAR	Range	Elevation [Ft]	Frequency	Replaces:	Status
2	LAA	N 38° 11' 49.53" W 102° 41' 15.12" E 12	H	3944.0	116.90	LAA	Not Used
		ESV: Bearing [True]: 234.0° to 306.0° Bearing [Mag]: 222.0° to 294.0°			Arc Distance: Out to 119.0 NM Altitude: 16300.0 to 22000.0 Ft.		
3	HGO	N 38° 49' 3.00" W 103° 37' 17.00" E 12	H	5233.0	112.10	HGO	Not Used
		ESV: Bearing [True]: 194.0° to 278.0° Bearing [Mag]: 182.0° to 266.0°			Arc Distance: Out to 91.0 NM Altitude: 16900.0 to 20000.0 Ft.		
4	PUB	N 38° 17' 39.32" W 104° 25' 46.01" E 13	H	4759.4	116.70	PUB	Not Used
		ESV: Bearing [True]: 239.0° to 285.0° Bearing [Mag]: 226.0° to 272.0°			Arc Distance: Out to 61.0 NM Altitude: 17000.0 to 20000.0 Ft.		

Radar Analysis

Return To Summary

Settings: **Radar Types:** ARSR and ASR



Name:	Martha Dunn
Project Name:	KDEN SPAZZ1
Output File:	KDEN SPAZZ1 SID RW16R RAYDR 20120829_1153
Procedure Name:	SPAZZ1
Software:	RNAV-Pro™
Version:	2.36v
Date/Time:	8/29/2012 11:53:02 AM
Input File:	KDEN SPAZZ SID RW16R RAYDR 20120829.txt
Databases:	AVNIS Date: 02/07/2012
	Obstacle Date: 08/26/2011
	NFD Date: 09/30/2010
	DTED® (MAX) Date: 2002

Results Summary:

Flyability	✓	**Please Check Flyability Results**
DME/DME	✓	
Radars	✓	
Comms	?	
TERPS	?	

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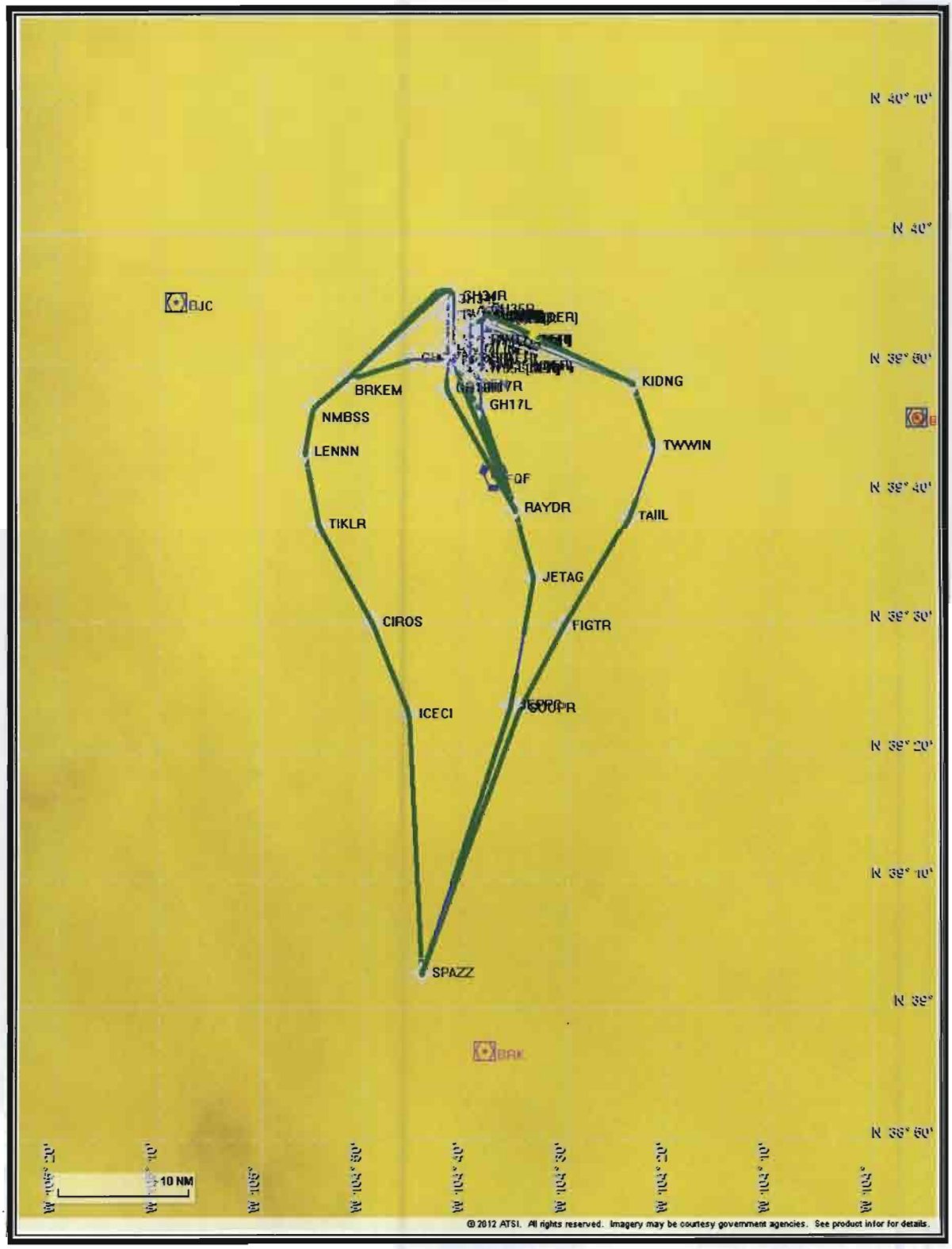
BJC
BRKEM
NMBSS
LENNN
TIKLR
CIROS
ICECI
SPAZZ
GH17L
KIDNG
TWWIN
TAIIL
RAYDR
JETAG
FIGTR
10 NM
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Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
RW16R(...	WP	N 39° 53' 44.87" W 104° 41' 45.90"	5321.8	VNAV	0.0	Fly By	TF
RW34L(...	WP	N 39° 51' 6.79" W 104° 41' 47.72"	5362.0	VNAV	120.0	Fly Over	VI
GH16R	WP	N 39° 48' 9.81" W 104° 41' 49.78"	5934.0	VNAV	120.0	Fly By	CF - 151.1°
RAYDR	WP	N 39° 38' 51.15" W 104° 35' 10.81"	9799.0	VNAV	200.0	Fly Over	TF

Climb Gradient: 325.0 Ft/NM up to 10000.0 Ft MSL

Flyability

Return To Summary

Settings:

Flight Type: Runway Departure
Selected Airport: KDEN
Aircraft Category: Cat D
Climb Gradient: 325.0 Ft/NM up to 10000.0 Ft MSL
Ground Speeds:
Departure: **120.0 Kts** out to **10.0 NM**
Table:
200.0 Kts up to **11000.0 Ft.**
240.0 Kts up to **18000.0 Ft.**
260.0 Kts up to **24000.0 Ft.**
340.0 Kts up to **99900.0 Ft.**
Wind Settings: *None assigned*
Descent During a Turn: Allowed
VNAV Mode: Flight Plan

Aircraft ALTITUDE at Fly-By WP GH16R too high.

Flight Track comes into contact with terrain. Minimum AGL along route was -65.09 Ft.
Flight Track contacted terrain (DTED lvl 0 max) between AER and DER or within 2/3 NM of DER.

DME/DME

Return To Summary

Settings:

RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.165 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: VOR/DME , VORTAC , TACAN , and User
DME Include Angles: 30 to 150
Critical DMEs: Allowed
DoD Facilities: Not included
Foreign Facilities: Not included
Low & Terminal DMEs: Included
Flight Check DMEs: Selected
Higher Altitudes: Evaluated
Near Maximum Altitude: Evaluated
Minimum MSL DMEs Avail: 6072 Ft.

Total Number of DMEs Used: 2

Maximum DME Error: 0.545 NM.

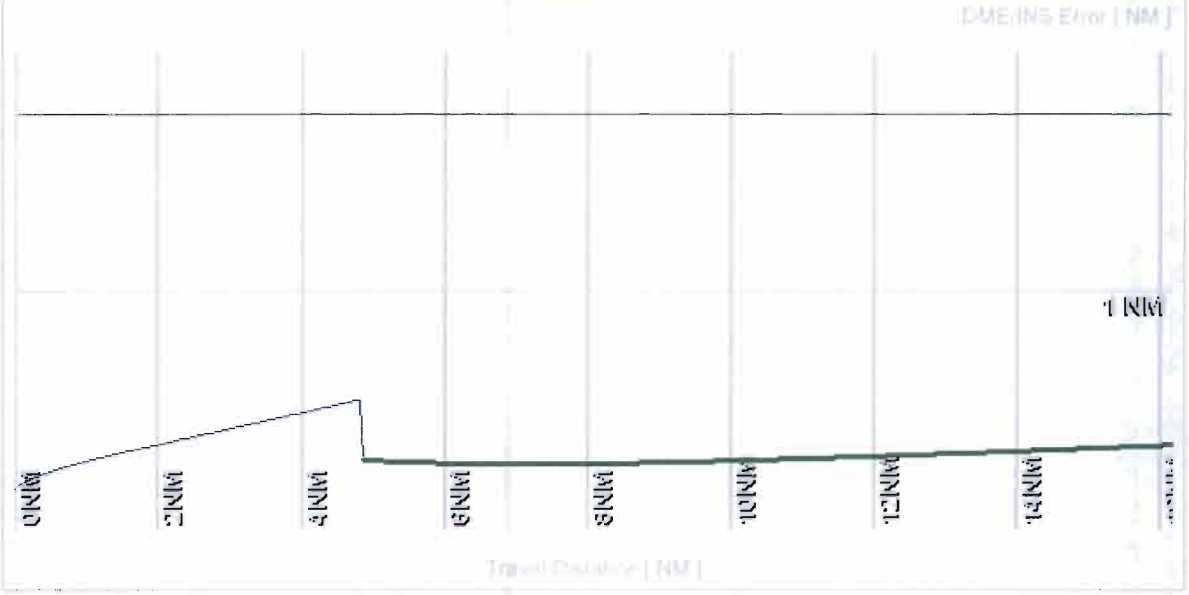
No Critical DMEs were found.

Available DMEs: DVV, FQF, BJC, DEN

Disabled DMEs: BVR

DME/DME (Continued.)

Return To Summary



DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon/MAGVAR	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	BJC	N 39° 54' 46.87" W 105° 8' 20.47" E 11	H	Database	NO	0.847	Enabled	64.3 %	70.2 %
2	DVV	N 39° 53' 40.88" W 104° 37' 27.61" E 11	H	Database	NO	0.843	Enabled	64.3 %	70.2 %

Flight Check DME Selection

Distance [NM]	Selected DMEs				Alternate
0.0					
2.7	DVV	FQF	BJC		
5.4	DVV	FQF	BJC	DEN	

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 39° 53' 44.87" W 104° 41' 45.90"	N 39° 48' 55.29" W 104° 41' 49.24"	4.8

VOR: BJC	Available from N 39° 53' 44.87" W 104° 41' 45.90" to N 39° 48' 55.29" W 104° 41' 49.24"
VOR: BVR	Available from N 39° 53' 44.87" W 104° 41' 45.90" to N 39° 48' 55.29" W 104° 41' 49.24"
VOR: DEN	Available from N 39° 53' 44.87" W 104° 41' 45.90" to N 39° 48' 55.29" W 104° 41' 49.24"
VOR: DVV	Available from N 39° 53' 44.87" W 104° 41' 45.90" to N 39° 48' 55.29" W 104° 41' 49.24"
VOR: FQF	Available from N 39° 53' 44.87" W 104° 41' 45.90" to N 39° 48' 55.29" W 104° 41' 49.24"
VOR: GLL	Available from N 39° 53' 44.87" W 104° 41' 45.90" to N 39° 50' 45.38" W 104° 41' 47.96"

User DMEs

#	Name	Lat/Lon/MAGVAR	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	AKO	N 40° 9' 19.99" W 103° 10' 46.96" E 13	H	4622.8	114.40	AKO	Not Used

ESV:	Bearing [True]: 226.0° to 255.0° Bearing [Mag]: 213.0° to 242.0°	Arc Distance: Out to 94.0 NM Altitude: 11700.0 to 20000.0 Ft.

DME/DME (Continued.)

Return To Summary

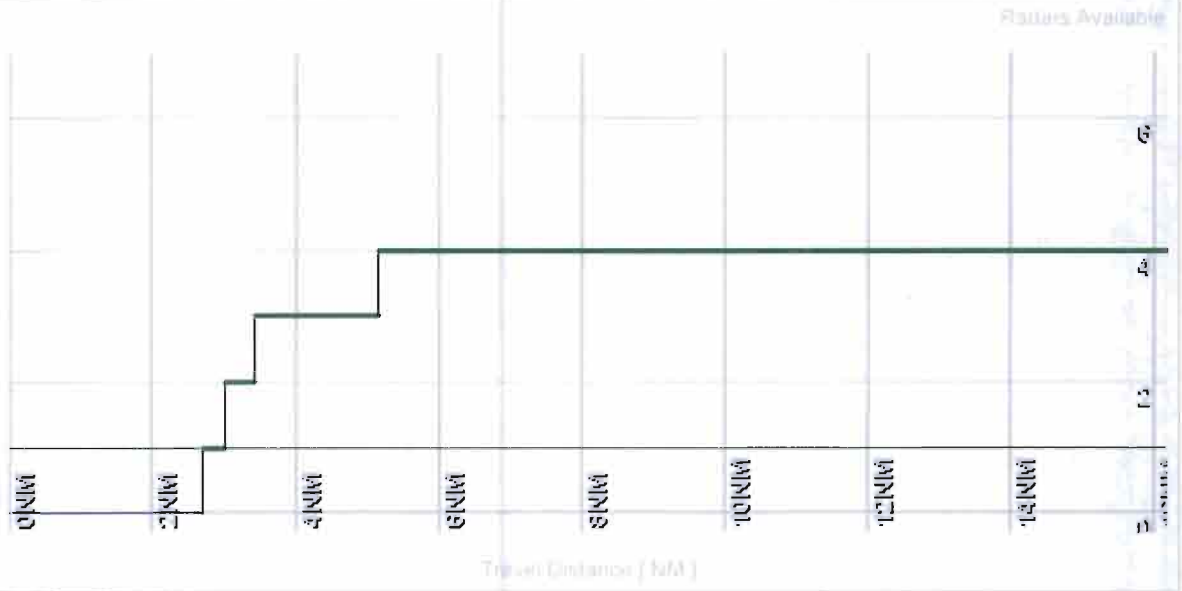
User DMEs (Continued.)

#	Name	Lat/Lon/MAGVAR	Range	Elevation [Ft]	Frequency	Replaces:	Status
2	LAA	N 38° 11' 49.53" W 102° 41' 15.12" E 12	H	3944.0	116.90	LAA	Not Used
		ESV: Bearing [True]: 234.0° to 306.0° Bearing [Mag]: 222.0° to 294.0°			Arc Distance: Out to 119.0 NM Altitude: 16300.0 to 22000.0 Ft.		
3	HGO	N 38° 49' 3.00" W 103° 37' 17.00" E 12	H	5233.0	112.10	HGO	Not Used
		ESV: Bearing [True]: 194.0° to 278.0° Bearing [Mag]: 182.0° to 266.0°			Arc Distance: Out to 91.0 NM Altitude: 16900.0 to 20000.0 Ft.		
4	PUB	N 38° 17' 39.32" W 104° 25' 46.01" E 13	H	4759.4	116.70	PUB	Not Used
		ESV: Bearing [True]: 239.0° to 285.0° Bearing [Mag]: 226.0° to 272.0°			Arc Distance: Out to 61.0 NM Altitude: 17000.0 to 20000.0 Ft.		

Radar Analysis

Return To Summary

Settings: **Radar Types:** ARSR and ASR



Name:	Martha Dunn
Project Name:	KDEN SPAZZ1
Output File:	KDEN SPAZZ1 SID RW16L RAYDR 20120829_1152
Procedure Name:	SPAZZ1
Software:	RNAV-Pro™
Version:	2.36v
Date/Time:	8/29/2012 11:52:12 AM
Input File:	KDEN SPAZZ SID RW16L RAYDR 20120-0829.txt
Databases:	AVNIS Date: 02/07/2012
	Obstacle Date: 08/26/2011
	NFD Date: 09/30/2010
	DTED® (MAX) Date: 2002

Results Summary:

Flyability	✓ **Please Check Flyability Results**
DME/DME	✓
Radars	✓
Comms	?
TERPS	?

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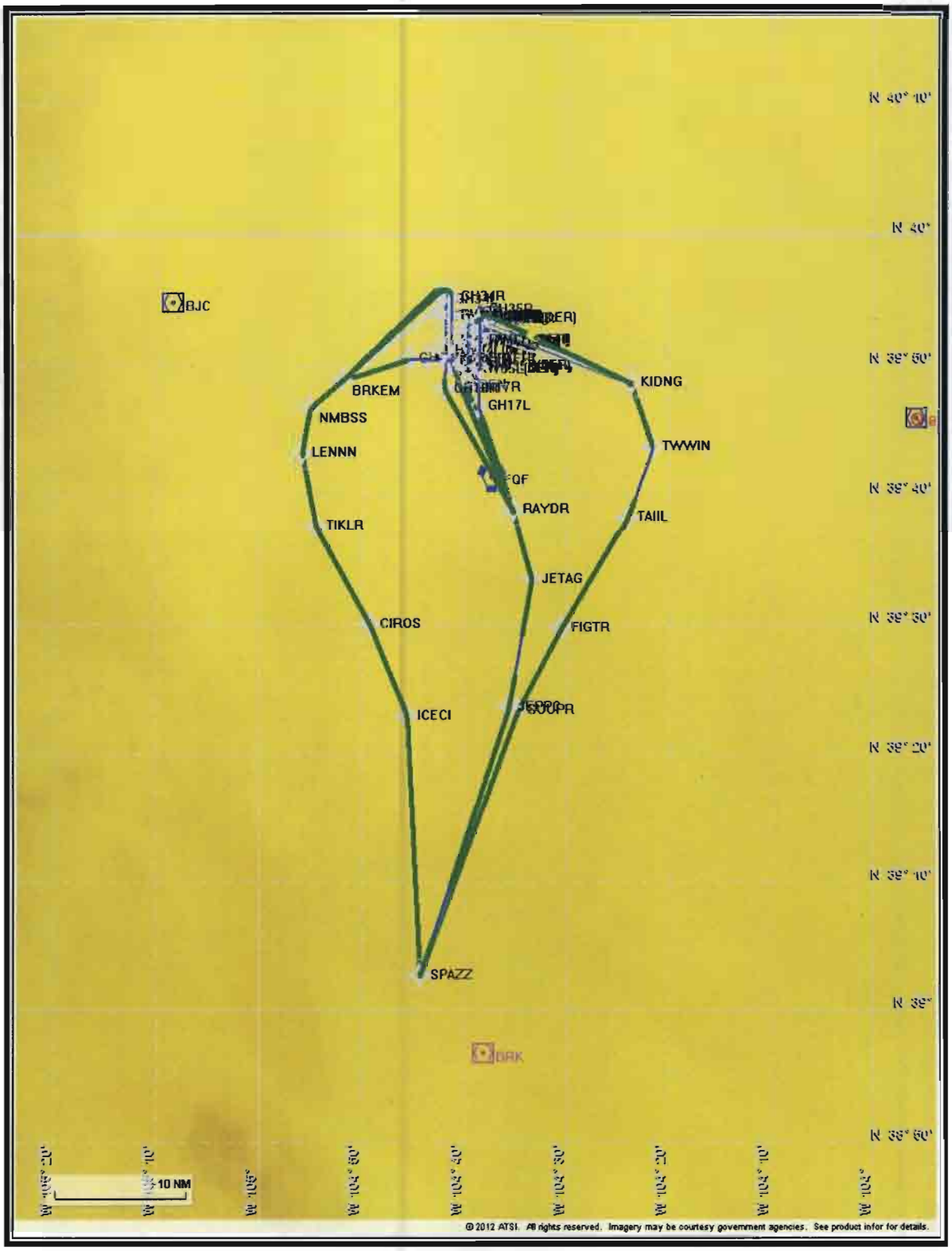
BJC
BRKEM
NMBSS
LENNN
TIKLR
CIROS
ICECI
SPAZZ
GH17L
KIDNG
TWWIN
RAYDR
TAIIL
JETAG
FIGTR
DRK
10 NM
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Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
RW16L(...	WP	N 39° 53' 49.33" W 104° 41' 12.50"	5349.9	VNAV	0.0	Fly By	TF
RW34R(...	WP	N 39° 51' 50.77" W 104° 41' 13.88"	5388.7	VNAV	120.0	Fly Over	VI
GH16L	WP	N 39° 50' 11.84" W 104° 41' 15.01"	5934.0	VNAV	120.0	Fly By	CF - 157.6°
RAYDR	WP	N 39° 38' 51.15" W 104° 35' 10.81"	9955.0	VNAV	200.0	Fly Over	TF

Climb Gradient: 325.0 Ft/NM up to 10000.0 Ft MSL

Flyability

Return To Summary

Settings:

Flight Type: Runway Departure
Selected Airport: KDEN
Aircraft Category: Cat D
Climb Gradient: 325.0 Ft/NM up to 10000.0 Ft MSL
Ground Speeds:
Departure: **120.0 Kts** out to **10.0 NM**
Table:
200.0 Kts up to **11000.0 Ft.**
240.0 Kts up to **18000.0 Ft.**
260.0 Kts up to **24000.0 Ft.**
340.0 Kts up to **99900.0 Ft.**
Wind Settings: *None assigned*
Descent During a Turn: Allowed
VNAV Mode: Flight Plan

Flight Track comes into contact with terrain. Minimum AGL along route was -40.10 Ft.
Flight Track contacted terrain (DTED lvl 0 max) between AER and DER or within 2/3 NM of DER.

DME/DME

Return To Summary

Settings:

RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.165 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: VOR/DME , VORTAC , TACAN , and User
DME Include Angles: 30 to 150
Critical DMEs: Allowed
DoD Facilities: Not included
Foreign Facilities: Not included
Low & Terminal DMEs: Included
Flight Check DMEs: Selected
Higher Altitudes: Evaluated
Near Maximum Altitude: Evaluated
Minimum MSL DMEs Avail: 6204 Ft.

Total Number of DMEs Used: 2

Maximum DME Error: 0.523 NM.

No Critical DMEs were found.

Available DMEs: DVV, FQF, BJC, DEN

Disabled DMEs: BVR

DME/DME (Continued.)

Return To Summary

DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon/MAGVAR	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	BJC	N 39° 54' 46.87" W 105° 8' 20.47" E 11	H	Database	NO	1.051	Enabled	65.4 %	71.6 %
2	DVV	N 39° 53' 40.88" W 104° 37' 27.61" E 11	H	Database	NO	0.781	Enabled	65.4 %	71.6 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0						
2.0	DVV	FQF				
3.5	DVV	FQF	BJC	DEN		

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 39° 53' 49.33" W 104° 41' 12.50"	N 39° 49' 23.19" W 104° 40' 50.43"	4.5

VOR: BJC	Available from N 39° 53' 49.33" W 104° 41' 12.50" to N 39° 49' 23.19" W 104° 40' 50.43"
VOR: BVR	Available from N 39° 53' 49.33" W 104° 41' 12.50" to N 39° 49' 23.19" W 104° 40' 50.43"
VOR: DEN	Available from N 39° 53' 49.33" W 104° 41' 12.50" to N 39° 49' 23.19" W 104° 40' 50.43"
VOR: DVV	Available from N 39° 53' 49.33" W 104° 41' 12.50" to N 39° 49' 23.19" W 104° 40' 50.43"
VOR: FQF	Available from N 39° 53' 49.33" W 104° 41' 12.50" to N 39° 49' 23.19" W 104° 40' 50.43"
VOR: GLL	Available from N 39° 53' 49.33" W 104° 41' 12.50" to N 39° 50' 41.79" W 104° 41' 14.67"

User DMEs

#	Name	Lat/Lon/MAGVAR	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	AKO	N 40° 9' 19.99" W 103° 10' 46.96" E 13	H	4622.8	114.40	AKO	Not Used

ESV:	Bearing [True]: 226.0° to 255.0° Bearing [Mag]: 213.0° to 242.0°	Arc Distance: Out to 94.0 NM Altitude: 11700.0 to 20000.0 Ft.

DME/DME (Continued.)

Return To Summary

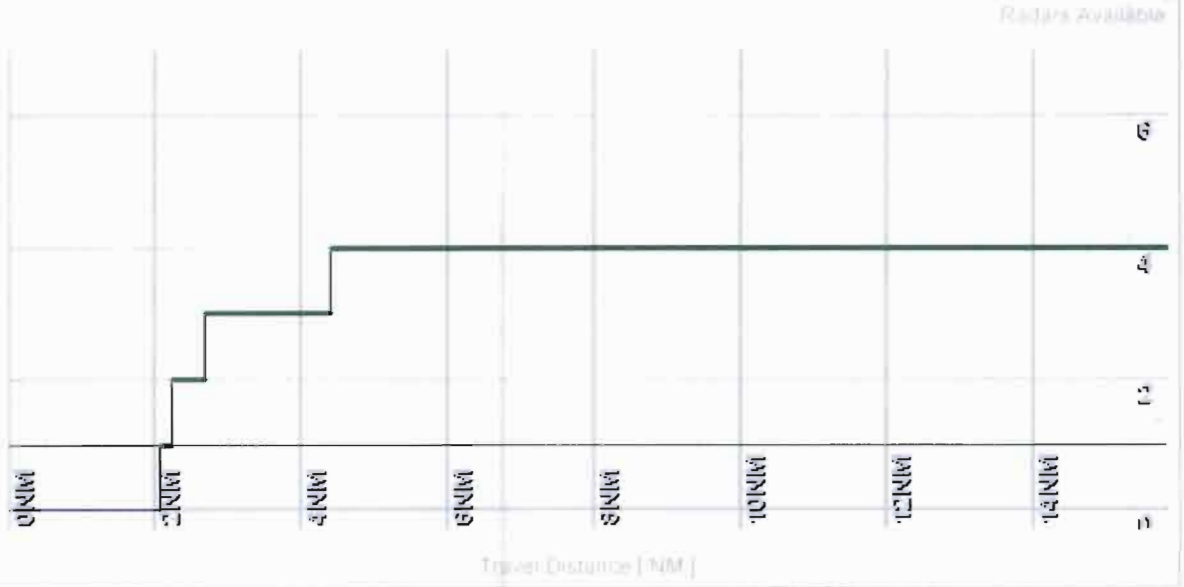
User DMEs (Continued.)

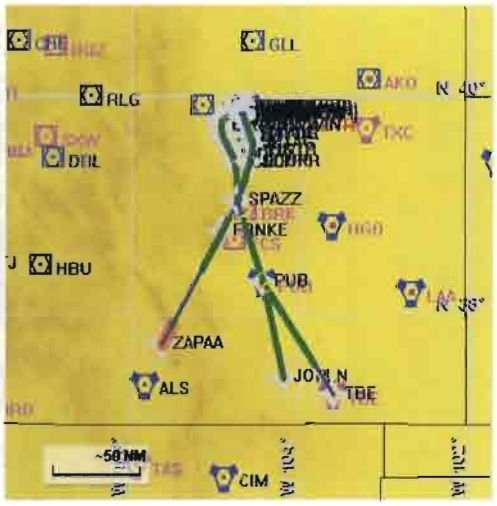
#	Name	Lat/Lon/MAGVAR	Range	Elevation [Ft]	Frequency	Replaces:	Status
2	LAA	N 38° 11' 49.53" W 102° 41' 15.12" E 12	H	3944.0	116.90	LAA	Not Used
		ESV: Bearing [True]: 234.0° to 306.0° Bearing [Mag]: 222.0° to 294.0°		Arc Distance: Out to 119.0 NM Altitude: 16300.0 to 22000.0 Ft.			
3	HGO	N 38° 49' 3.00" W 103° 37' 17.00" E 12	H	5233.0	112.10	HGO	Not Used
		ESV: Bearing [True]: 194.0° to 278.0° Bearing [Mag]: 182.0° to 266.0°		Arc Distance: Out to 91.0 NM Altitude: 16900.0 to 20000.0 Ft.			
4	PUB	N 38° 17' 39.32" W 104° 25' 46.01" E 13	H	4759.4	116.70	PUB	Not Used
		ESV: Bearing [True]: 239.0° to 285.0° Bearing [Mag]: 226.0° to 272.0°		Arc Distance: Out to 61.0 NM Altitude: 17000.0 to 20000.0 Ft.			

Radar Analysis

Return To Summary

Settings: **Radar Types:** ARSR and ASR





Name:	Martha Dunn
Project Name:	KDEN
Output File:	KDEN SPAZZ1 SID RW25 JOPLN 20120829_1052
Procedure Name:	SPAZZ1
Software:	RNAV-Pro™
Version:	2.36v
Date/Time:	8/29/2012 10:52:12 AM
Input File:	KDEN SPAZZ SID RW25 JOPLN 2012-0829.txt
Databases:	AVNIS Date: 02/07/2012
	Obstacle Date: 08/26/2011
	NFD Date: 09/30/2010
	DTED® (MAX) Date: 2002

Results Summary:

Flyability	✓ **Please Check Flyability Results**
DME/DME	✓
Radars	✓
Comms	?
TERPS	?

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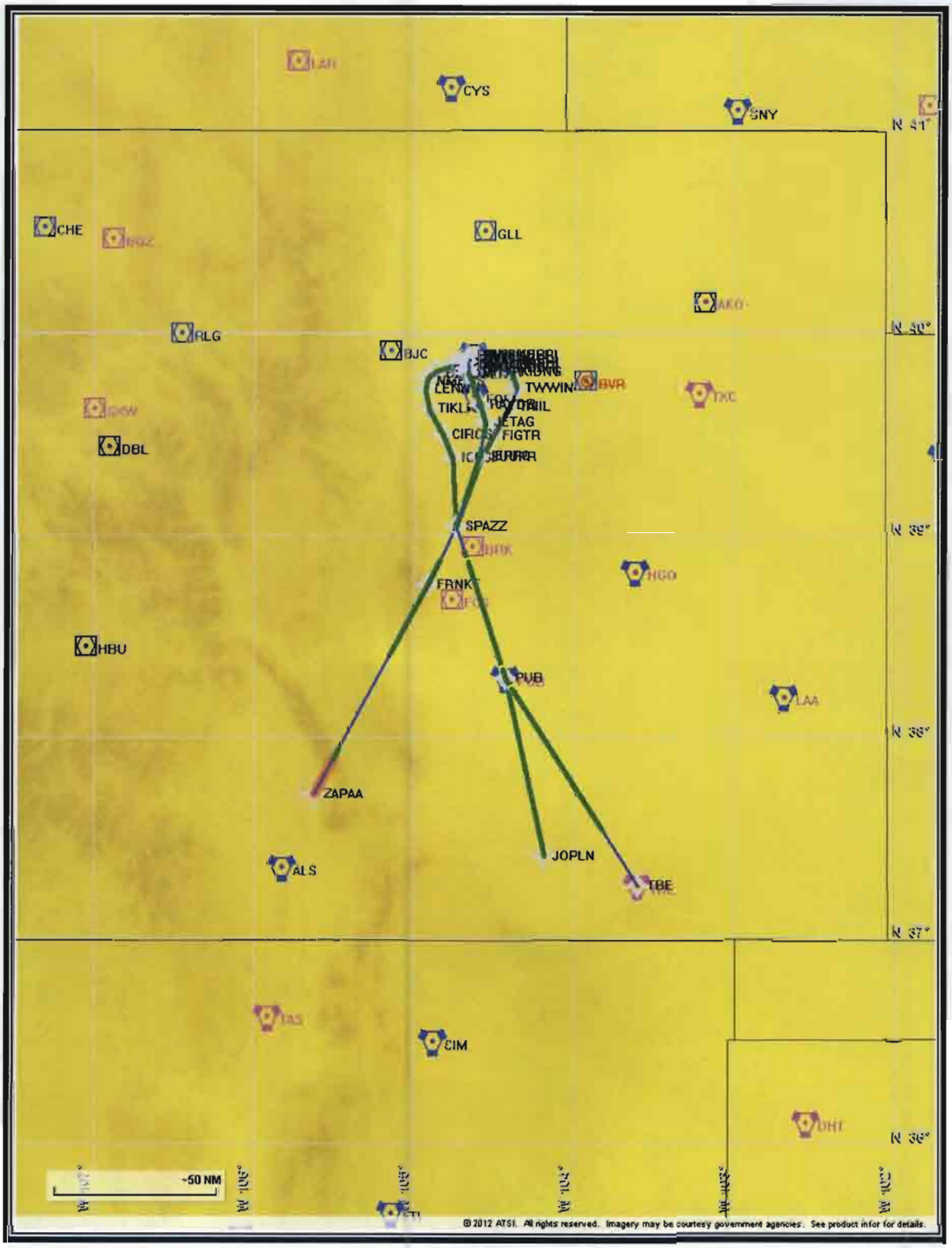
CYS
SNY
CHE
GLL
RLG
BJC
TWWIN
BVR
TXC
DBL
SPAZZ
FRNKT
HBU
PUB
LAA
ZAPAA
JOPLN
ALS
TBE
CIM
DHT
~50 NM
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Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
RW25(A...	WP	N 39° 50' 26.36" W 104° 41' 2.17"	5355.0	VNAV	0.0	Fly By	TF
RW07(D...	WP	N 39° 50' 27.40" W 104° 43' 35.96"	5385.2	VNAV	130.0	Fly Over	VI
GH25:	WP	N 39° 50' 28.04" W 104° 45' 13.06"	5934.0	VNAV	145.0	Fly By	CF - 252.3°
BRKEM	WP	N 39° 48' 50.92" W 104° 51' 47.63"	8128.0	VNAV	180.0	Fly By	TF
NMBSS	WP	N 39° 46' 42.49" W 104° 54' 59.23"	9237.0	VNAV	180.0	Fly By	TF
LENNN	WP	N 39° 43' 15.02" W 104° 55' 43.70"	10000.0	VNAV	280.0	Fly By	TF
TIKLR	WP	N 39° 37' 34.30" W 104° 54' 21.73"	11879.0	VNAV	210.0	Fly By	TF
CIROS	WP	N 39° 29' 59.92" W 104° 49' 5.10"	14000.0	VNAV	210.0	Fly By	TF
ICECI	WP	N 39° 22' 56.00" W 104° 45' 27.99"	16000.0	VNAV	210.0	Fly By	TF
SPAZZ	WP	N 39° 2' 39.07" W 104° 44' 12.98"	17000.0	VNAV	240.0	Fly By	TF
PUB	WP	N 38° 17' 39.32" W 104° 25' 46.01"	17000.0	VNAV	240.0	Fly By	TF
JOPLN	WP	N 37° 24' 37.63" W 104° 11' 3.71"	17000.0	VNAV	240.0	Fly Over	TF

Climb Gradient:

Table:

410.0 Ft/NM up to **9000.0 Ft MSL**

285.0 Ft/NM up to **15000.0 Ft MSL**

Flyability

Return To Summary

Settings:

Flight Type: Runway Departure
Selected Airport: KDEN
Aircraft Category: Cat D
Climb Gradient:

Table:
410.0 Ft/NM up to **9000.0 Ft MSL**
285.0 Ft/NM up to **15000.0 Ft MSL**

Ground Speeds:

Departure: **120.0 Kts** out to **10.0 NM**
Table:
200.0 Kts up to **11000.0 Ft.**
240.0 Kts up to **18000.0 Ft.**
260.0 Kts up to **24000.0 Ft.**
340.0 Kts up to **99900.0 Ft.**

Wind Settings: *None assigned*
Descent During a Turn: Allowed
VNAV Mode: Flight Plan

Aircraft ALTITUDE at Fly-By WP CIROS too high.

Flight Track comes into contact with terrain. Minimum AGL along route was -34.19 Ft.
Flight Track contacted terrain (DTED lvl 0 max) between AER and DER or within 2/3 NM of DER.

DME/DME

Return To Summary

Settings:

RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.165 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: VOR/DME , VORTAC , TACAN , and User
DME Include Angles: 30 to 150
Critical DMEs: Allowed
DoD Facilities: Not included
Foreign Facilities: Not included
Low & Terminal DMEs: Included
Flight Check DMEs: Selected
Higher Altitudes: Evaluated
Near Maximum Altitude: Evaluated
Minimum MSL DMEs Avail: 5994 Ft.

Total Number of DMEs Used: 10

Maximum DME Error: 0.630 NM.

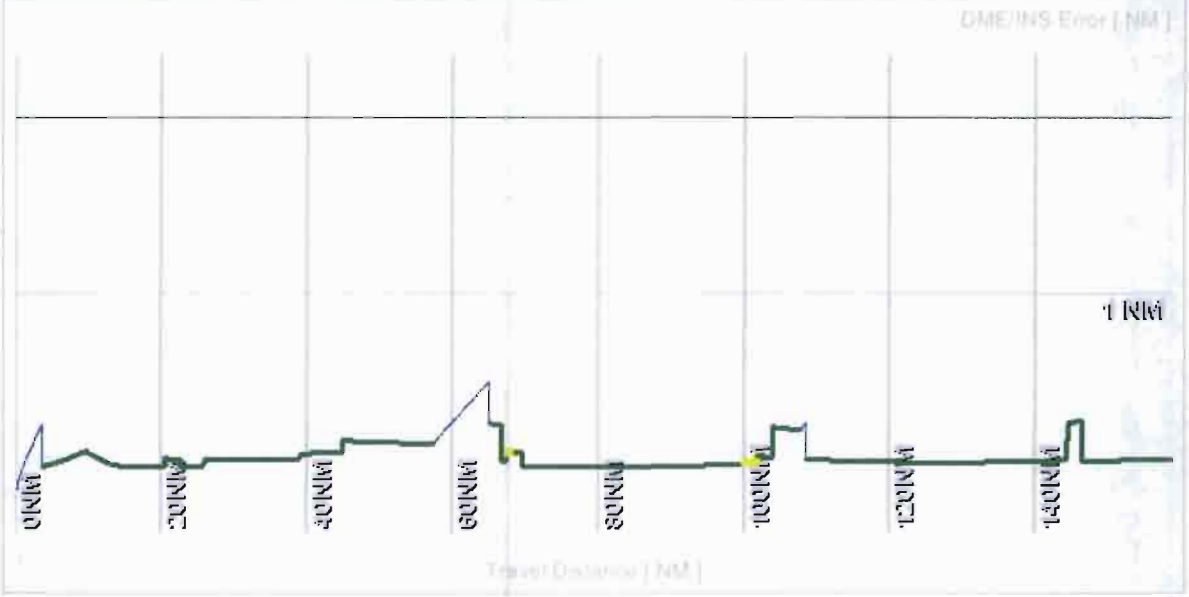
No Critical DMEs were found.

Available DMEs: DEN, FQF, BJC, DVV, AKO, BRK, LAA, PUB, HGO, TBE

Disabled DMEs: BVR

DME/DME (Continued.)

Return To Summary



DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon/MAGVAR	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	DVV	N 39° 53' 40.88" W 104° 37' 27.61" E 11	H	Database	NO	0.892	Enabled	13.7 %	8.6 %
2	FQF	N 39° 41' 24.50" W 104° 37' 15.50" E 11	H	Database	NO	0.876	Enabled	15.9 %	13.6 %
3	BJC	N 39° 54' 46.87" W 105° 8' 20.47" E 11	H	Database	NO	0.630	Enabled	19.5 %	18.6 %
4	DEN	N 39° 48' 45.05" W 104° 39' 38.66" E 11	H	Database	NO	0.630	Enabled	2.1 %	2.1 %
5	AKO	N 40° 9' 19.99" W 103° 10' 46.96" E 13	H + ESV	User	NO	0.630	Enabled	12.1 %	13.3 %
6	BRK	N 38° 56' 40.22" W 104° 38' 0.48" E 0	L	Database	NO	0.630	Enabled	13.4 %	14.8 %
7	LAA	N 38° 11' 49.53" W 102° 41' 15.12" E 12	H + ESV	User	NO	1.056	Enabled	34.3 %	37.8 %
8	PUB	N 38° 17' 39.32" W 104° 25' 46.01" E 13	H + ESV	User	NO	0.748	Enabled	32.8 %	36.1 %
9	HGO	N 38° 49' 3.00" W 103° 37' 17.00" E 12	H + ESV	User	NO	0.630	Enabled	29.3 %	32.2 %
10	TBE	N 37° 15' 31.17" W 103° 36' 0.20" E 12	L	Database	NO	0.630	Enabled	7.1 %	7.8 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0						
2.0						
3.1	DEN	FQF	BJC	DVV		
8.3	DEN	FQF	BJC	DVV		
11.2	DEN	FQF	BJC	DVV		
14.7	DEN	FQF	BJC	DVV		
20.3	DEN	FQF	BJC	DVV	AKO	
29.2	DEN	FQF	BJC	DVV	AKO	BRK
36.5	LAA	FQF	BJC	BRK	AKO	DEN
46.6	LAA	FQF	DEN	BRK		
56.9	LAA	FQF	PUB	BRK	HGO	
104.3	LAA	HGO	PUB	TBE		

DME/DME (Continued.)

Return To Summary

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 39° 50' 26.36" W 104° 41' 2.17"	N 39° 50' 24.63" W 104° 45' 30.96"	3.5
	VOR: BJC	Available from N 39° 50' 26.36" W 104° 41' 2.17" to N 39° 50' 24.63" W 104° 45' 30.96"	
	VOR: BVR	Available from N 39° 50' 26.36" W 104° 41' 2.17" to N 39° 50' 24.63" W 104° 45' 30.96"	
	VOR: DEN	Available from N 39° 50' 26.36" W 104° 41' 2.17" to N 39° 50' 24.63" W 104° 45' 30.96"	
	VOR: DVV	Available from N 39° 50' 26.36" W 104° 41' 2.17" to N 39° 50' 24.63" W 104° 45' 30.96"	
	VOR: FQF	Available from N 39° 50' 26.36" W 104° 41' 2.17" to N 39° 50' 24.63" W 104° 45' 30.96"	
2	N 39° 2' 55.22" W 104° 44' 13.19"	N 38° 55' 35.88" W 104° 41' 18.37"	7.7
	VOR: BRK	Available from N 39° 2' 55.22" W 104° 44' 13.19" to N 38° 55' 35.88" W 104° 41' 18.37"	
	VOR: FCS	Available from N 39° 2' 55.22" W 104° 44' 13.19" to N 38° 55' 35.88" W 104° 41' 18.37"	
	VOR: FQF	Available from N 39° 2' 55.22" W 104° 44' 13.19" to N 39° 1' 45.31" W 104° 43' 51.43"	
	VOR: PUB	Available from N 38° 55' 43.50" W 104° 41' 21.52" to N 38° 55' 35.88" W 104° 41' 18.37"	
3	N 38° 14' 40.39" W 104° 24' 54.92"	N 38° 13' 53.46" W 104° 24' 41.81"	0.8
	VOR: FCS	Available from N 38° 14' 40.39" W 104° 24' 54.92" to N 38° 13' 53.46" W 104° 24' 41.81"	
	VOR: PUB	Available from N 38° 14' 40.39" W 104° 24' 54.92" to N 38° 13' 53.46" W 104° 24' 41.81"	

DME/DME (Continued.)

Return To Summary

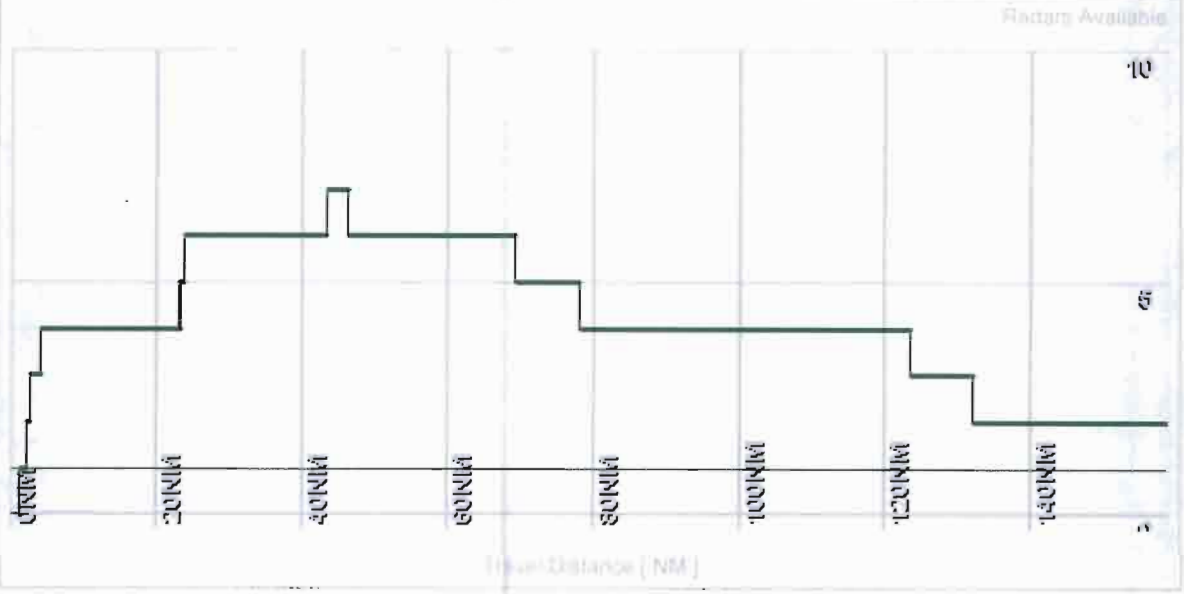
User DMEs

#	Name	Lat/Lon/MAGVAR	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	AKO	N 40° 9' 19.99" W 103° 10' 46.96" E 13	H	4622.8	114.40	AKO	Used
		ESV: Bearing [True]: 226.0° to 255.0° Bearing [Mag]: 213.0° to 242.0°		Arc Distance: Out to 94.0 NM Altitude: 11700.0 to 20000.0 Ft.			
2	LAA	N 38° 11' 49.53" W 102° 41' 15.12" E 12	H	3944.0	116.90	LAA	Used
		ESV: Bearing [True]: 234.0° to 306.0° Bearing [Mag]: 222.0° to 294.0°		Arc Distance: Out to 119.0 NM Altitude: 16300.0 to 22000.0 Ft.			
3	HGO	N 38° 49' 3.00" W 103° 37' 17.00" E 12	H	5233.0	112.10	HGO	Used
		ESV: Bearing [True]: 194.0° to 278.0° Bearing [Mag]: 182.0° to 266.0°		Arc Distance: Out to 91.0 NM Altitude: 16900.0 to 20000.0 Ft.			
4	PUB	N 38° 17' 39.32" W 104° 25' 46.01" E 13	H	4759.4	116.70	PUB	Used
		ESV: Bearing [True]: 239.0° to 285.0° Bearing [Mag]: 226.0° to 272.0°		Arc Distance: Out to 61.0 NM Altitude: 17000.0 to 20000.0 Ft.			

Radar Analysis

Return To Summary

Settings: **Radar Types:** ARSR and ASR



Name:	Martha Dunn
Project Name:	KDEN SPAZZ1
Output File:	KDEN SPAZZ1 SID RW34R LENNN 20120829_1154
Procedure Name:	SPAZZ1
Software:	RNAV-Pro™
Version:	2.36v
Date/Time:	8/29/2012 11:54:51 AM
Input File:	KDEN SPAZZ SID RW34R LENNN_2012-0829.txt
Databases:	AVNIS Date: 02/07/2012
	Obstacle Date: 08/26/2011
	NFD Date: 09/30/2010
	DTED® (MAX) Date: 2002

Results Summary:

Flyability	✓	**Please Check Flyability Results**
DME/DME	✓	
Radars	✓	
Comms	?	
TERPS	?	

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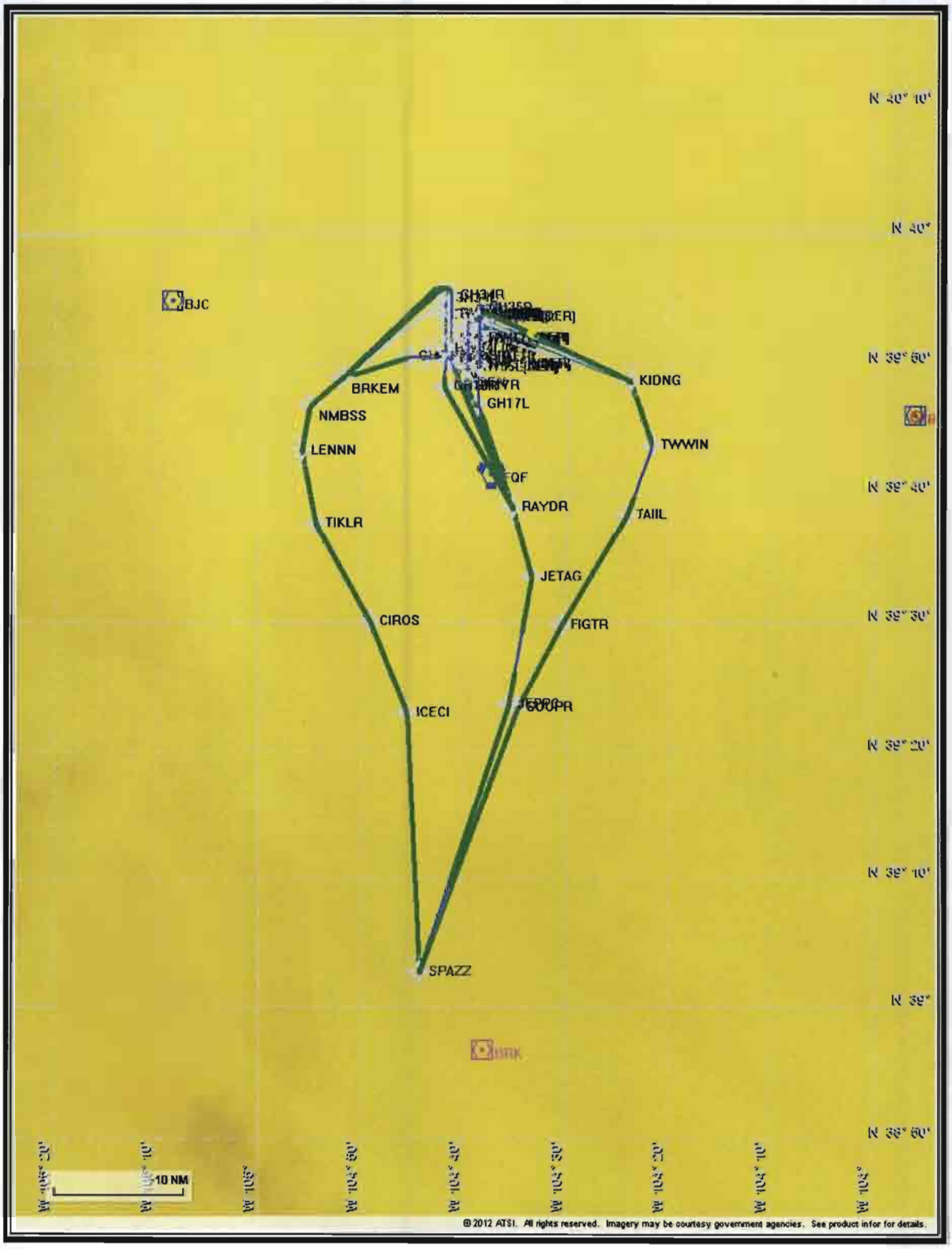
BJC
BRKEM
NMBSS
LENNN
TIKLR
CIROS
ICECI
SPAZZ
GH17L
KIDNG
TWWIN
RAYDR
TAIIL
JETAG
FIGTR
10 NM
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Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
RW34R(...	WP	N 39° 51' 50.77" W 104° 41' 13.88"	5353.7	VNAV	0.0	Fly Over	TF
RW16L(...	WP	N 39° 53' 49.33" W 104° 41' 12.50"	5384.9	VNAV	120.0	Fly Over	VA
GH34R	WP	N 39° 55' 14.87" W 104° 41' 11.51"	5934.0	VNAV	120.0	Fly Over	DF
BRKEM	WP	N 39° 48' 50.92" W 104° 51' 47.63"	8889.0	VNAV	200.0	Fly By	TF
NMBSS	WP	N 39° 46' 42.49" W 104° 54' 59.23"	9819.0	VNAV	200.0	Fly By	TF
LENNN	WP	N 39° 43' 15.02" W 104° 55' 43.70"	10000.0	VNAV	240.0	Fly Over	TF

Climb Gradient:

Table:

410.0 Ft/NM up to **5934.0 Ft MSL**

285.0 Ft/NM up to **15000.0 Ft MSL**

Flyability

Return To Summary

Settings:

Flight Type: Runway Departure
Selected Airport: KDEN
Aircraft Category: Cat D
Climb Gradient:

Table:
410.0 Ft/NM up to **5934.0 Ft MSL**
285.0 Ft/NM up to **15000.0 Ft MSL**

Ground Speeds:

Departure: **120.0 Kts** out to **10.0 NM**
Table:
200.0 Kts up to **11000.0 Ft.**
240.0 Kts up to **18000.0 Ft.**
260.0 Kts up to **24000.0 Ft.**
340.0 Kts up to **99900.0 Ft.**

Wind Settings: *None assigned*
Descent During a Turn: Allowed
VNAV Mode: Flight Plan

Aircraft ALTITUDE at Fly-By WP BRKEM too high.

Aircraft ALTITUDE at Fly-By WP NMBSS too high.

Aircraft ALTITUDE at Fly-Over WP LENNN too high.

Flight Track comes into contact with terrain. Minimum AGL along route was -40.00 Ft.
Flight Track contacted terrain (DTED lvl 0 max) between AER and DER or within 2/3 NM of DER.

DME/DME

Return To Summary

Settings:

RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.165 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: VOR/DME , VORTAC , TACAN , and User
DME Include Angles: 30 to 150
Critical DMEs: Allowed
DoD Facilities: Not included
Foreign Facilities: Not included
Low & Terminal DMEs: Included
Flight Check DMEs: Selected
Higher Altitudes: Evaluated
Near Maximum Altitude: Evaluated
Minimum MSL DMEs Avail: 6052 Ft.

Total Number of DMEs Used: 5

Maximum DME Error: 0.472 NM.

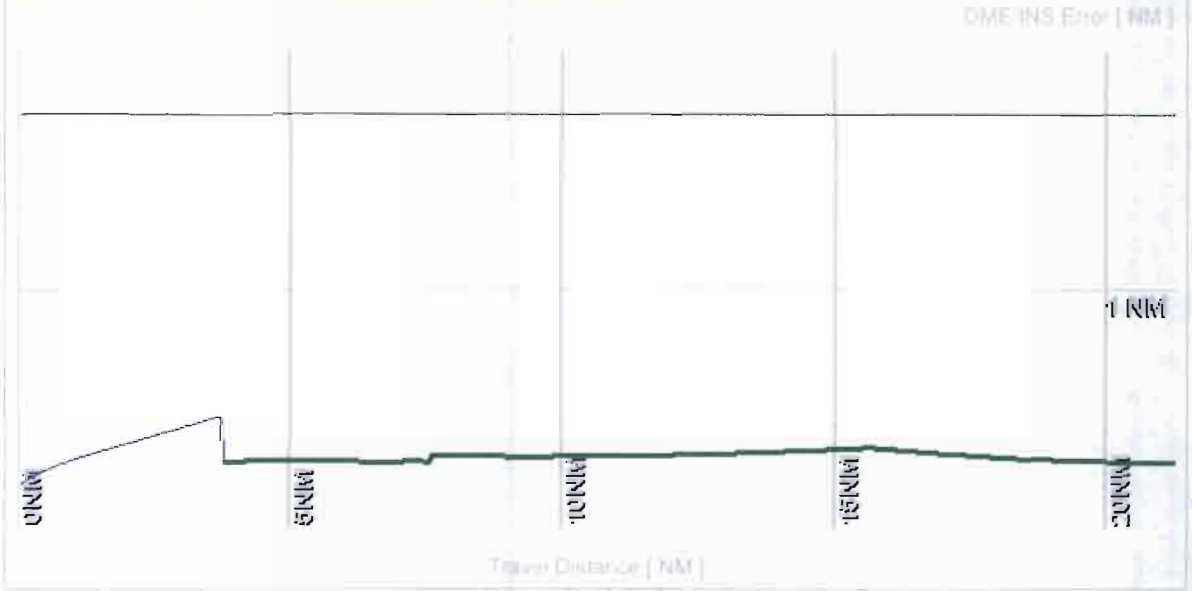
No Critical DMEs were found.

Available DMEs: DEN, GLL, FQF, DVV, BJC

Disabled DMEs: BVR

DME/DME (Continued.)

Return To Summary



DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon/MAGVAR	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	BJC	N 39° 54' 46.87" W 105° 8' 20.47" E 11	H	Database	NO	0.496	Enabled	33.4 %	40.2 %
2	DEN	N 39° 48' 45.05" W 104° 39' 38.66" E 11	H	Database	NO	0.472	Enabled	3.0 %	2.7 %
3	FQF	N 39° 41' 24.50" W 104° 37' 15.50" E 11	H	Database	NO	0.707	Enabled	39.8 %	40.3 %
4	GLL	N 40° 30' 13.93" W 104° 33' 10.86" E 13	H	Database	NO	0.472	Enabled	14.8 %	13.2 %
5	DVV	N 39° 53' 40.88" W 104° 37' 27.61" E 11	H	Database	NO	0.782	Enabled	59.9 %	68.7 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0						
2.0	DEN	GLL	FQF			
3.4	DEN	GLL	FQF	DVV	BJC	
14.5	DEN	BJC	FQF	DVV		
17.2	DEN	BJC	FQF	DVV		

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 39° 51' 50.77" W 104° 41' 13.88"	N 39° 55' 33.50" W 104° 41' 17.52"	3.7

VOR: BJC	Available from N 39° 51' 50.77" W 104° 41' 13.88" to N 39° 55' 33.50" W 104° 41' 17.52"
VOR: BVR	Available from N 39° 51' 50.77" W 104° 41' 13.88" to N 39° 55' 33.50" W 104° 41' 17.52"
VOR: DEN	Available from N 39° 51' 50.77" W 104° 41' 13.88" to N 39° 55' 33.50" W 104° 41' 17.52"
VOR: DVV	Available from N 39° 51' 50.77" W 104° 41' 13.88" to N 39° 55' 33.50" W 104° 41' 17.52"
VOR: FQF	Available from N 39° 51' 50.77" W 104° 41' 13.88" to N 39° 55' 33.50" W 104° 41' 17.52"
VOR: GLL	Available from N 39° 51' 50.77" W 104° 41' 13.88" to N 39° 55' 33.50" W 104° 41' 17.52"

DME/DME (Continued.)

Return To Summary

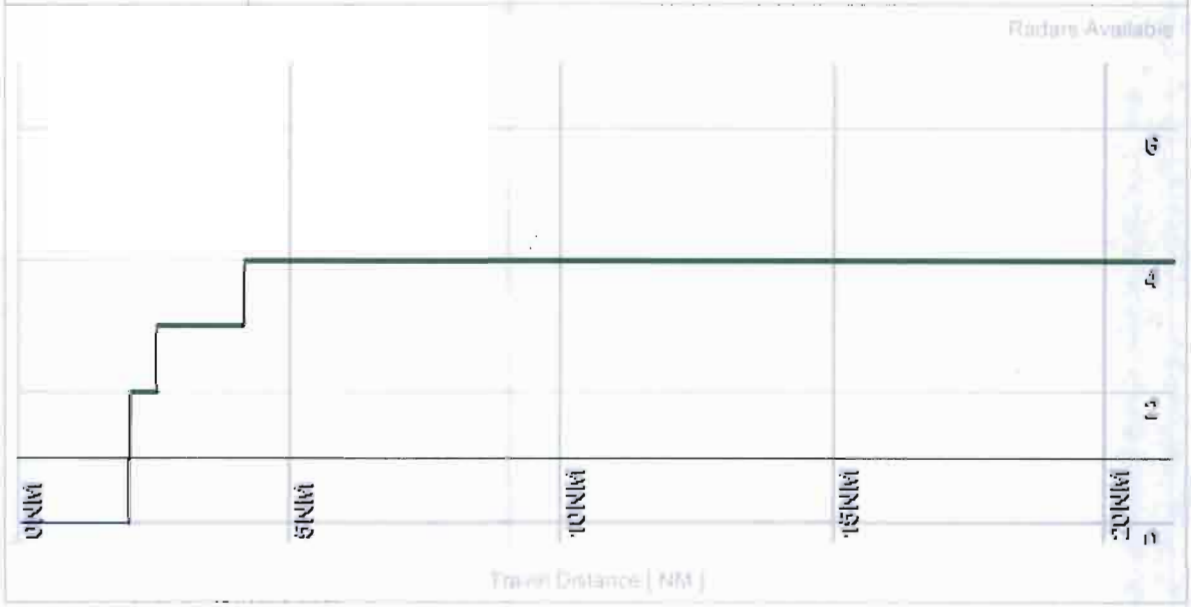
User DMEs

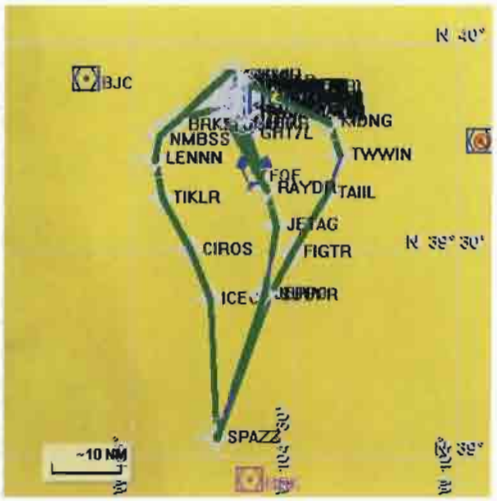
#	Name	Lat/Lon/MAGVAR	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	AKO	N 40° 9' 19.99" W 103° 10' 46.96" E 13	H	4622.8	114.40	AKO	Not Used
		ESV: Bearing [True]: 226.0° to 255.0° Bearing [Mag]: 213.0° to 242.0°			Arc Distance: Out to 94.0 NM Altitude: 11700.0 to 20000.0 Ft.		
2	LAA	N 38° 11' 49.53" W 102° 41' 15.12" E 12	H	3944.0	116.90	LAA	Not Used
		ESV: Bearing [True]: 234.0° to 306.0° Bearing [Mag]: 222.0° to 294.0°			Arc Distance: Out to 119.0 NM Altitude: 16300.0 to 22000.0 Ft.		
3	HGO	N 38° 49' 3.00" W 103° 37' 17.00" E 12	H	5233.0	112.10	HGO	Not Used
		ESV: Bearing [True]: 194.0° to 278.0° Bearing [Mag]: 182.0° to 266.0°			Arc Distance: Out to 91.0 NM Altitude: 16900.0 to 20000.0 Ft.		
4	PUB	N 38° 17' 39.32" W 104° 25' 46.01" E 13	H	4759.4	116.70	PUB	Not Used
		ESV: Bearing [True]: 239.0° to 285.0° Bearing [Mag]: 226.0° to 272.0°			Arc Distance: Out to 61.0 NM Altitude: 17000.0 to 20000.0 Ft.		

Radar Analysis

Return To Summary

Settings: **Radar Types:** ARSR and ASR





Name:	Martha Dunn
Project Name:	KDEN SPAZZ1
Output File:	KDEN SPAZZ1 SID RW34L LENNN 20120829_1153
Procedure Name:	SPAZZ1
Software:	RNAV-Pro™
Version:	2.36v
Date/Time:	8/29/2012 11:53:56 AM
Input File:	KDEN SPAZZ SID RW34L LENNN_2012-0829.txt
Databases:	AVNIS Date: 02/07/2012
	Obstacle Date: 08/26/2011
	NFD Date: 09/30/2010
	DTED® (MAX) Date: 2002

Results Summary:

Flyability	✓ **Please Check Flyability Results**
DME/DME	✓
Radars	✓
Comms	?
TERPS	?

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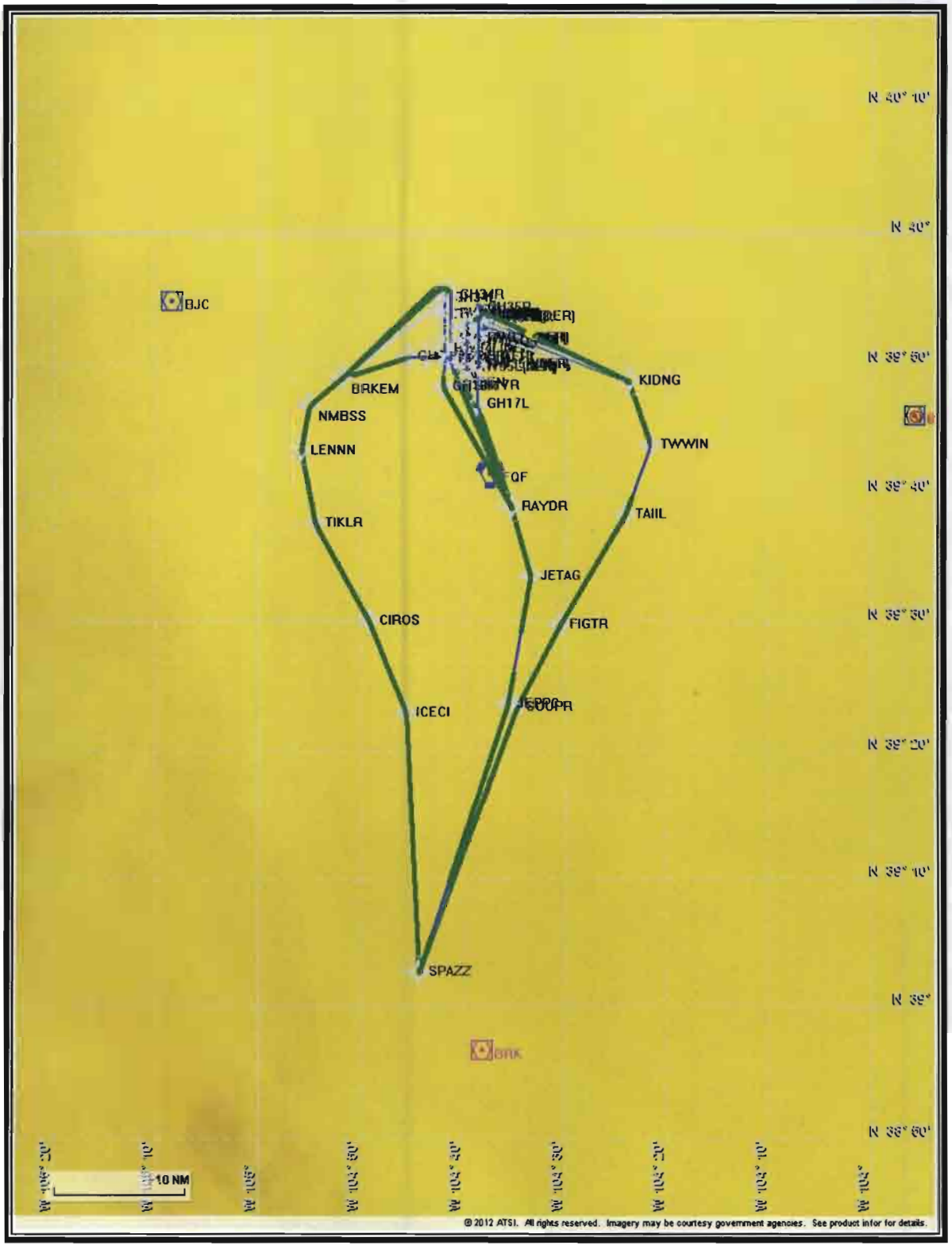
N 40° 10'
N 40°
BJC
N 39° 50'
BRKEM
NMBSS
LENNN
GH17L
KIDNG
TWWIN
QF
RAYDR
TAIIL
TIKLR
JETAG
CIROS
FIGTR
ICECI
SPAZZ
BRK
N 39° 40'
N 39° 30'
N 39° 20'
N 39° 10'
N 39°
N 38° 50'
10 NM
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Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
RW34L(...	WP	N 39° 51' 6.79" W 104° 41' 47.72"	5327.0	VNAV	0.0	Fly Over	TF
RW16R(...	WP	N 39° 53' 44.87" W 104° 41' 45.90"	5356.8	VNAV	120.0	Fly Over	VA
GH34L	WP	N 39° 54' 58.40" W 104° 41' 45.05"	5934.0	VNAV	120.0	Fly Over	DF
BRKEM	WP	N 39° 48' 50.92" W 104° 51' 47.63"	9500.0	VNAV	200.0	Fly By	TF
NMBSS	WP	N 39° 46' 42.49" W 104° 54' 59.23"	10000.0	VNAV	200.0	Fly By	TF
LENNN	WP	N 39° 43' 15.02" W 104° 55' 43.70"	10000.0	VNAV	200.0	Fly Over	TF

Climb Gradient:

Table:

410.0 Ft/NM up to **8000.0 Ft MSL**

285.0 Ft/NM up to **15000.0 Ft MSL**

Flyability

Return To Summary

Settings:

Flight Type: Runway Departure
Selected Airport: KDEN
Aircraft Category: Cat D
Climb Gradient:

Table:
410.0 Ft/NM up to **8000.0 Ft MSL**
285.0 Ft/NM up to **15000.0 Ft MSL**

Ground Speeds:

Departure: **120.0 Kts** out to **10.0 NM**
Table:
200.0 Kts up to **11000.0 Ft.**
240.0 Kts up to **18000.0 Ft.**
260.0 Kts up to **24000.0 Ft.**
340.0 Kts up to **99900.0 Ft.**

Wind Settings: *None assigned*
Descent During a Turn: Allowed
VNAV Mode: Flight Plan

Required IAS at Fly-By WP BRKEM could not be reached with given A/C acceleration performance.

Aircraft ALTITUDE at Fly-By WP NMBSS too high.

Aircraft ALTITUDE at Fly-Over WP LENNN too high.

Flight Track comes into contact with terrain. Minimum AGL along route was -56.00 Ft.
Flight Track contacted terrain (DTED lvl 0 max) between AER and DER or within 2/3 NM of DER.

DME/DME

Return To Summary

Settings:

RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.165 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: VOR/DME , VORTAC , TACAN , and User
DME Include Angles: 30 to 150
Critical DMEs: Allowed
DoD Facilities: Not included
Foreign Facilities: Not included
Low & Terminal DMEs: Included
Flight Check DMEs: Selected
Higher Altitudes: Evaluated
Near Maximum Altitude: Evaluated
Minimum MSL DMEs Avail: 6051 Ft.

Total Number of DMEs Used: 5

Maximum DME Error: 0.512 NM.

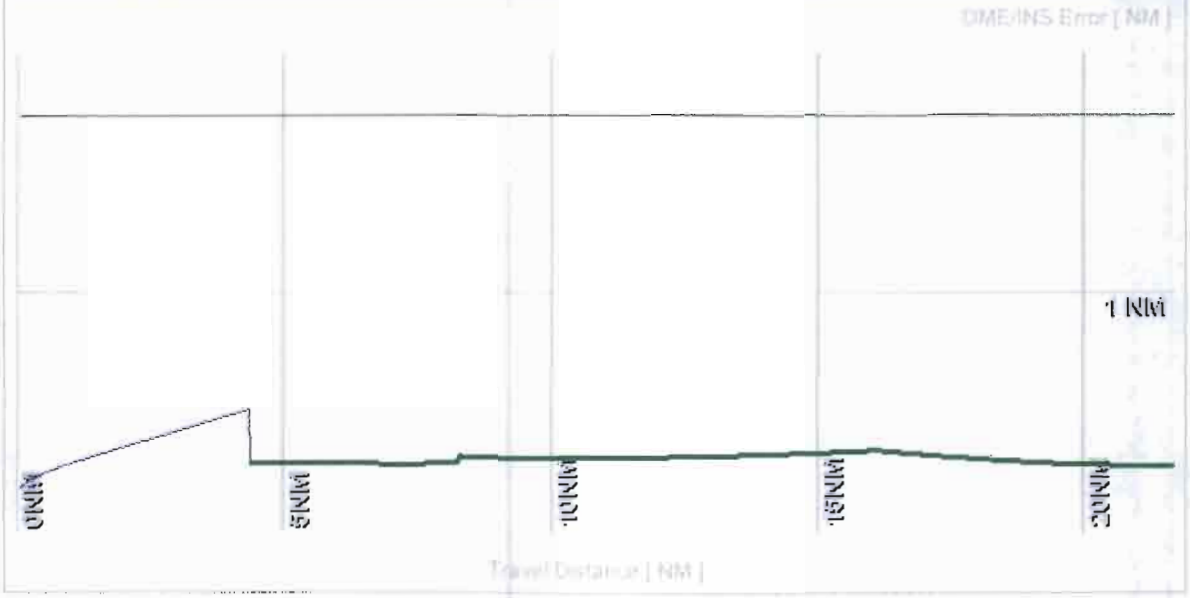
No Critical DMEs were found.

Available DMEs: DEN, GLL, FQF, BJC, DVV

Disabled DMEs: BVR

DME/DME (Continued.)

Return To Summary



DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon/MAGVAR	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	BJC	N 39° 54' 46.87" W 105° 8' 20.47" E 11	H	Database	NO	0.541	Enabled	32.1 %	39.5 %
2	DEN	N 39° 48' 45.05" W 104° 39' 38.66" E 11	H	Database	NO	0.512	Enabled	0.7 %	0.6 %
3	FQF	N 39° 41' 24.50" W 104° 37' 15.50" E 11	H	Database	NO	0.718	Enabled	40.0 %	40.0 %
4	GLL	N 40° 30' 13.93" W 104° 33' 10.86" E 13	H	Database	NO	0.512	Enabled	15.3 %	13.5 %
5	DVV	N 39° 53' 40.88" W 104° 37' 27.61" E 11	H	Database	NO	0.791	Enabled	57.5 %	66.6 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0						
2.7	DEN	GLL	FQF			
4.1	DEN	GLL	FQF	DVV	BJC	
14.9	DEN	BJC	FQF	DVV		
17.6	DEN	BJC	FQF	DVV		

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 39° 51' 6.79" W 104° 41' 47.72"	N 39° 55' 26.21" W 104° 41' 46.79"	4.3
	VOR: BJC	Available from N 39° 51' 6.79" W 104° 41' 47.72" to N 39° 55' 26.21" W 104° 41' 46.79"	
	VOR: BVR	Available from N 39° 51' 6.79" W 104° 41' 47.72" to N 39° 55' 26.21" W 104° 41' 46.79"	
	VOR: DEN	Available from N 39° 51' 6.79" W 104° 41' 47.72" to N 39° 55' 26.21" W 104° 41' 46.79"	
	VOR: DVV	Available from N 39° 51' 6.79" W 104° 41' 47.72" to N 39° 55' 26.21" W 104° 41' 46.79"	
	VOR: FQF	Available from N 39° 51' 6.79" W 104° 41' 47.72" to N 39° 55' 26.21" W 104° 41' 46.79"	
	VOR: GLL	Available from N 39° 51' 6.79" W 104° 41' 47.72" to N 39° 55' 26.21" W 104° 41' 46.79"	

DME/DME (Continued.)

Return To Summary

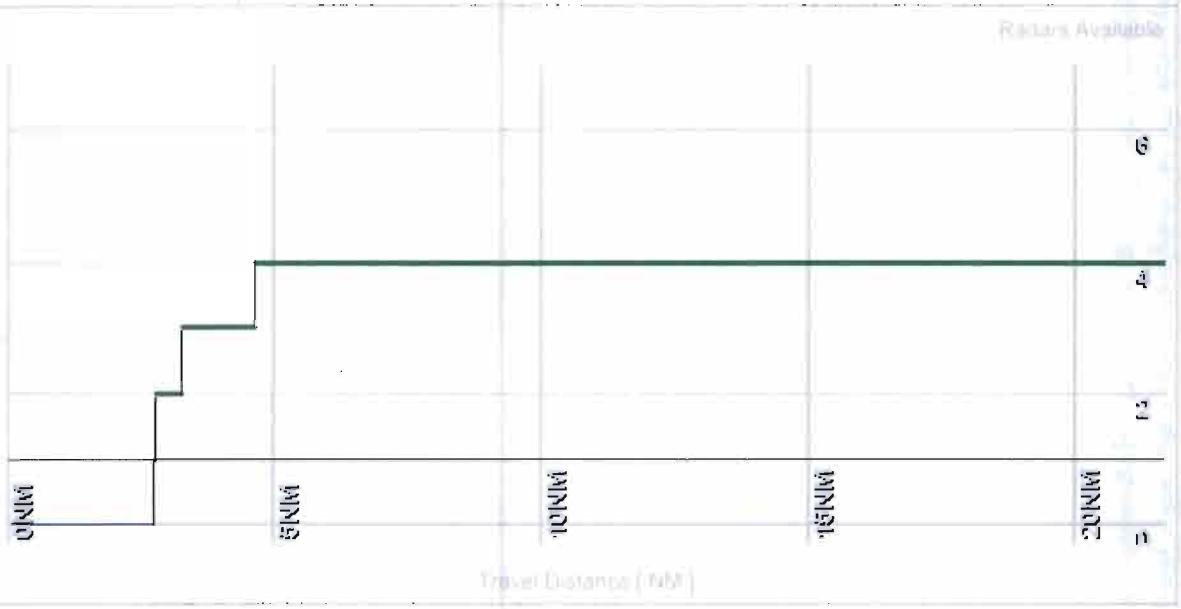
User DMEs

#	Name	Lat/Lon/MAGVAR	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	AKO	N 40° 9' 19.99" W 103° 10' 46.96" E 13	H	4622.8	114.40	AKO	Not Used
		ESV:	Bearing [True]: 226.0° to 255.0° Bearing [Mag]: 213.0° to 242.0°		Arc Distance: Out to 94.0 NM Altitude: 11700.0 to 20000.0 Ft.		
2	LAA	N 38° 11' 49.53" W 102° 41' 15.12" E 12	H	3944.0	116.90	LAA	Not Used
		ESV:	Bearing [True]: 234.0° to 306.0° Bearing [Mag]: 222.0° to 294.0°		Arc Distance: Out to 119.0 NM Altitude: 16300.0 to 22000.0 Ft.		
3	HGO	N 38° 49' 3.00" W 103° 37' 17.00" E 12	H	5233.0	112.10	HGO	Not Used
		ESV:	Bearing [True]: 194.0° to 278.0° Bearing [Mag]: 182.0° to 266.0°		Arc Distance: Out to 91.0 NM Altitude: 16900.0 to 20000.0 Ft.		
4	PUB	N 38° 17' 39.32" W 104° 25' 46.01" E 13	H	4759.4	116.70	PUB	Not Used
		ESV:	Bearing [True]: 239.0° to 285.0° Bearing [Mag]: 226.0° to 272.0°		Arc Distance: Out to 61.0 NM Altitude: 17000.0 to 20000.0 Ft.		

Radar Analysis

Return To Summary

Settings: **Radar Types:** ARSR and ASR



Name:	Martha Dunn
Project Name:	KDEN SPAZZ1
Output File:	KDEN SPAZZ1 SID RW35R KIDNG 20120829_1156
Procedure Name:	SPAZZ1
Software:	RNAV-Pro™
Version:	2.36v
Date/Time:	8/29/2012 11:56:25 AM
Input File:	KDEN SPAZZ SID RW35R KIDNG_2012-0829.txt
Databases:	AVNIS Date: 02/07/2012
	Obstacle Date: 08/26/2011
	NFD Date: 09/30/2010
	DTED® (MAX) Date: 2002

Results Summary:

Flyability	✓ **Please Check Flyability Results**
DME/DME	✓
Radars	✓
Comms	?
TERPS	?

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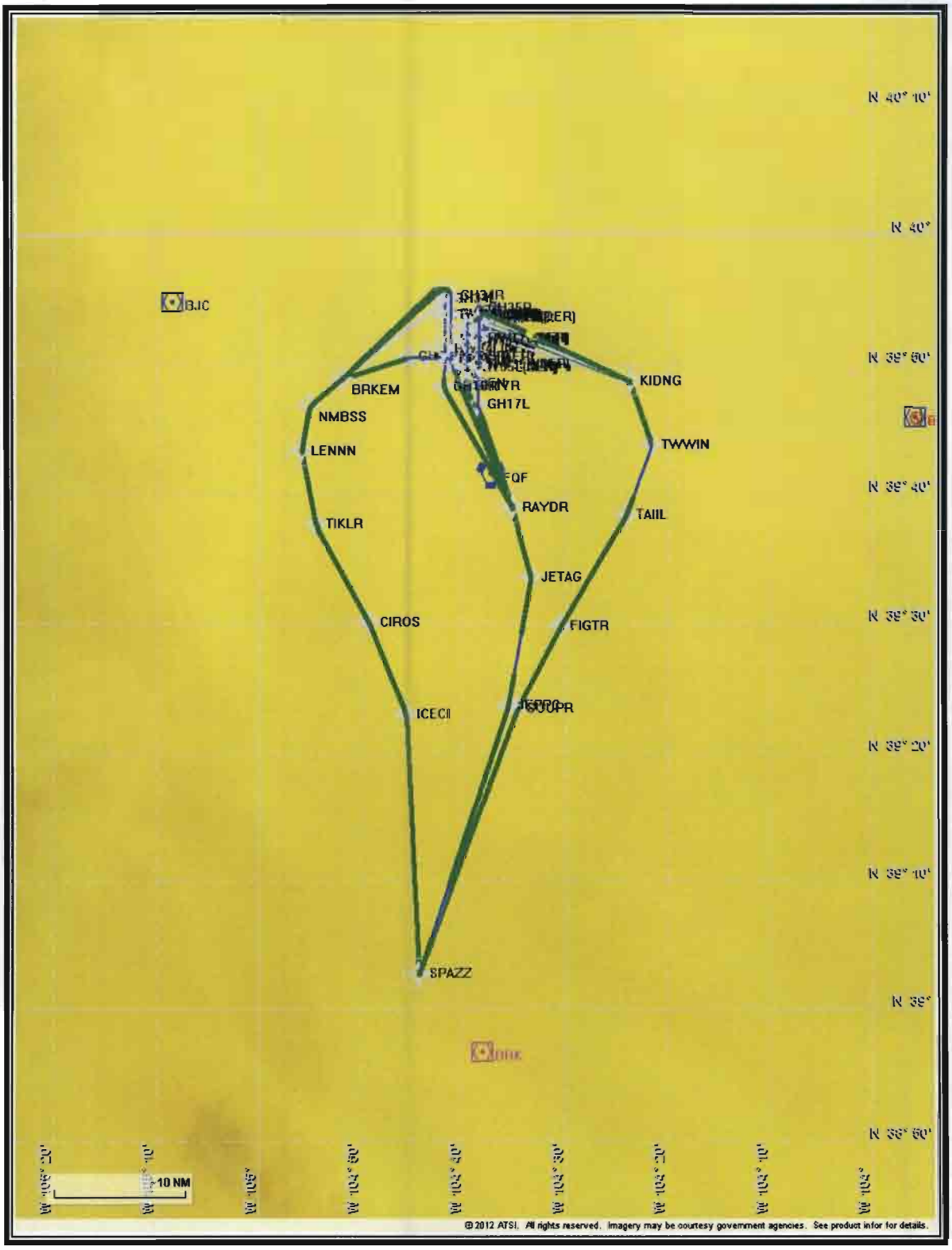
BJC
BRKEM
NMBSS
LENNN
TIKLR
CIROS
ICECI
SPAZZ
GH17L
KIDNG
TWWIN
RAYDR
TAIIL
JETAG
FIGTR
N 40° 10'
N 40°
N 39° 50'
N 39° 40'
N 39° 30'
N 39° 20'
N 39° 10'
N 39°
N 38° 50'
10 NM
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Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
RW35R(...	WP	N 39° 49' 55.27" W 104° 38' 30.16"	5370.0	VNAV	0.0	Fly Over	TF
RW17L(...	WP	N 39° 51' 53.83" W 104° 38' 28.70"	5363.1	VNAV	130.0	Fly Over	VA
GH35R	WP	N 39° 53' 22.56" W 104° 38' 27.61"	5934.0	VNAV	145.0	Fly Over	DF
KIDNG	WP	N 39° 48' 37.67" W 104° 23' 39.58"	9119.0	VNAV	180.0	Fly Over	TF

Climb Gradient:

Table:

410.0 Ft/NM up to **5934.0 Ft MSL**

260.0 Ft/NM up to **16000.0 Ft MSL**

Flyability

Return To Summary

Settings:

Flight Type: Runway Departure
Selected Airport: KDEN
Aircraft Category: Cat D
Climb Gradient:

Table:
410.0 Ft/NM up to **5934.0 Ft MSL**
260.0 Ft/NM up to **16000.0 Ft MSL**

Ground Speeds:

Departure: **120.0 Kts** out to **10.0 NM**
Table:
200.0 Kts up to **11000.0 Ft.**
240.0 Kts up to **18000.0 Ft.**
260.0 Kts up to **24000.0 Ft.**
340.0 Kts up to **99900.0 Ft.**

Wind Settings: *None assigned*
Descent During a Turn: Allowed
VNAV Mode: Flight Plan

Flight Track comes into contact with terrain. Minimum AGL along route was -17.14 Ft.
Flight Track contacted terrain (DTED lvl 0 max) between AER and DER or within 2/3 NM of DER.

DME/DME

Return To Summary

Settings:

RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.165 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: VOR/DME , VORTAC , TACAN , and User
DME Include Angles: 30 to 150
Critical DMEs: Allowed
DoD Facilities: Not included
Foreign Facilities: Not included
Low & Terminal DMEs: Included
Flight Check DMEs: Selected
Higher Altitudes: Evaluated
Near Maximum Altitude: Evaluated
Minimum MSL DMEs Avail: 6091 Ft.

Total Number of DMEs Used: 5

Maximum DME Error: 0.485 NM.

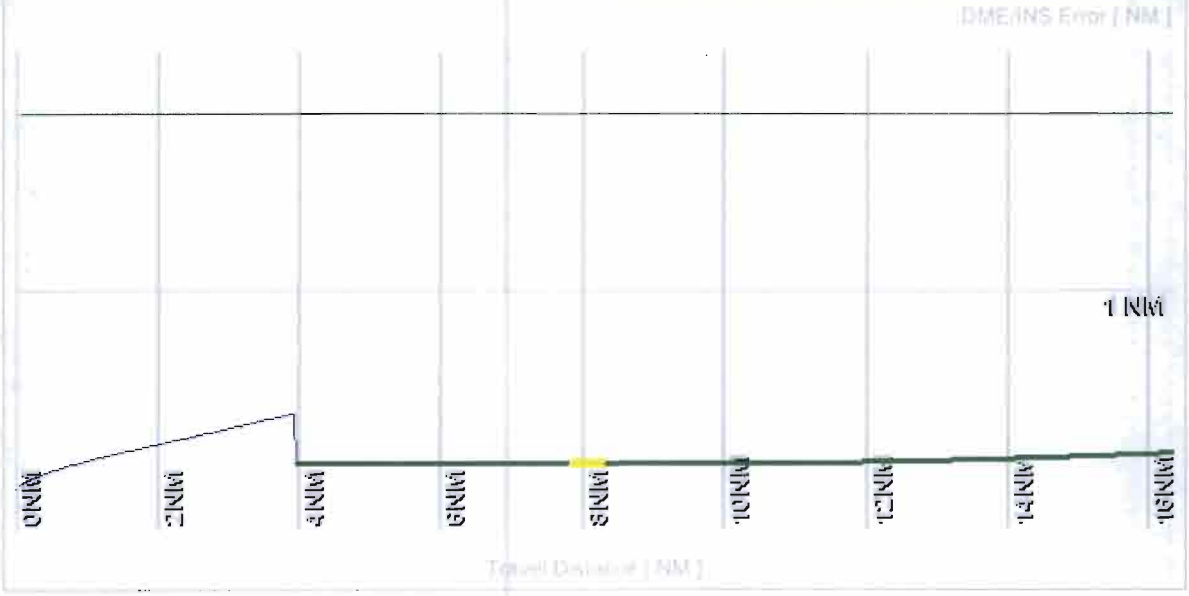
No Critical DMEs were found.

Available DMEs: DEN, GLL, FQF, BJC, DVV

Disabled DMEs: BVR

DME/DME (Continued.)

Return To Summary



DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon/MAGVAR	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	BJC	N 39° 54' 46.87" W 105° 8' 20.47" E 11	H	Database	NO	0.749	Enabled	24.5 %	23.9 %
2	GLL	N 40° 30' 13.93" W 104° 33' 10.86" E 13	H	Database	NO	0.485	Enabled	0.4 %	0.4 %
3	FQF	N 39° 41' 24.50" W 104° 37' 15.50" E 11	H	Database	NO	0.670	Enabled	69.2 %	75.6 %
4	DVV	N 39° 53' 40.88" W 104° 37' 27.61" E 11	H	Database	NO	0.485	Enabled	45.1 %	52.1 %
5	DEN	N 39° 48' 45.05" W 104° 39' 38.66" E 11	H	Database	NO	0.485	Enabled	0.0 %	0.0 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0						
2.0	DEN	GLL	FQF			
3.4	DEN	GLL	FQF	BJC	DVV	

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 39° 49' 55.27" W 104° 38' 30.16"	N 39° 53' 46.83" W 104° 38' 11.19"	3.9

VOR: BJC	Available from N 39° 49' 55.27" W 104° 38' 30.16" to N 39° 53' 46.83" W 104° 38' 11.19"
VOR: BVR	Available from N 39° 49' 55.27" W 104° 38' 30.16" to N 39° 53' 46.83" W 104° 38' 11.19"
VOR: DEN	Available from N 39° 49' 55.27" W 104° 38' 30.16" to N 39° 53' 46.83" W 104° 38' 11.19"
VOR: DVV	Available from N 39° 49' 55.27" W 104° 38' 30.16" to N 39° 53' 46.83" W 104° 38' 11.19"
VOR: FQF	Available from N 39° 49' 55.27" W 104° 38' 30.16" to N 39° 53' 46.83" W 104° 38' 11.19"
VOR: GLL	Available from N 39° 50' 24.99" W 104° 38' 29.79" to N 39° 53' 46.83" W 104° 38' 11.19"

DME/DME (Continued.)

Return To Summary

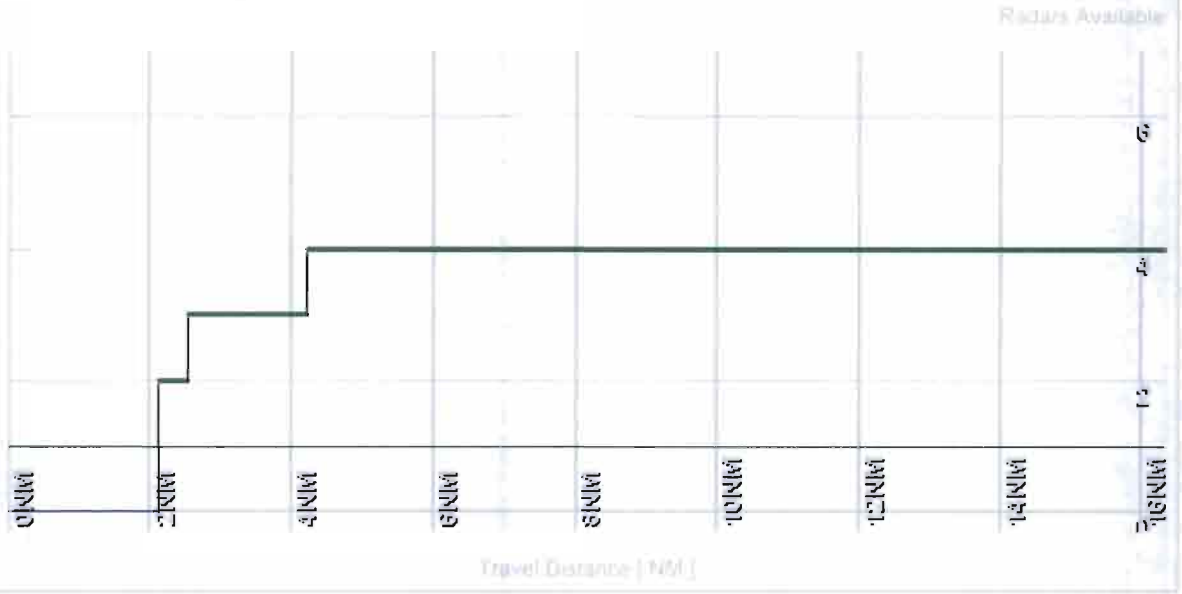
User DMEs

#	Name	Lat/Lon/MAGVAR	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	AKO	N 40° 9' 19.99" W 103° 10' 46.96" E 13	H	4622.8	114.40	AKO	Not Used
		ESV: Bearing [True]: 226.0° to 255.0° Bearing [Mag]: 213.0° to 242.0°		Arc Distance: Out to 94.0 NM Altitude: 11700.0 to 20000.0 Ft.			
2	LAA	N 38° 11' 49.53" W 102° 41' 15.12" E 12	H	3944.0	116.90	LAA	Not Used
		ESV: Bearing [True]: 234.0° to 306.0° Bearing [Mag]: 222.0° to 294.0°		Arc Distance: Out to 119.0 NM Altitude: 16300.0 to 22000.0 Ft.			
3	HGO	N 38° 49' 3.00" W 103° 37' 17.00" E 12	H	5233.0	112.10	HGO	Not Used
		ESV: Bearing [True]: 194.0° to 278.0° Bearing [Mag]: 182.0° to 266.0°		Arc Distance: Out to 91.0 NM Altitude: 16900.0 to 20000.0 Ft.			
4	PUB	N 38° 17' 39.32" W 104° 25' 46.01" E 13	H	4759.4	116.70	PUB	Not Used
		ESV: Bearing [True]: 239.0° to 285.0° Bearing [Mag]: 226.0° to 272.0°		Arc Distance: Out to 61.0 NM Altitude: 17000.0 to 20000.0 Ft.			

Radar Analysis

Return To Summary

Settings: **Radar Types:** ARSR and ASR



Name:	Martha Dunn
Project Name:	KDEN SPAZZ1
Output File:	KDEN SPAZZ1 SID RW35L KIDNG 20120829_1155
Procedure Name:	SPAZZ1
Software:	RNAV-Pro™
Version:	2.36v
Date/Time:	8/29/2012 11:55:37 AM
Input File:	KDEN SPAZZ SID RW35L KIDNG_2012-0829.txt
Databases:	AVNIS Date: 02/07/2012
	Obstacle Date: 08/26/2011
	NFD Date: 09/30/2010
	DTED® (MAX) Date: 2002

Results Summary:

Flyability	✓	**Please Check Flyability Results**
DME/DME	✓	
Radars	✓	
Comms	?	
TERPS	?	

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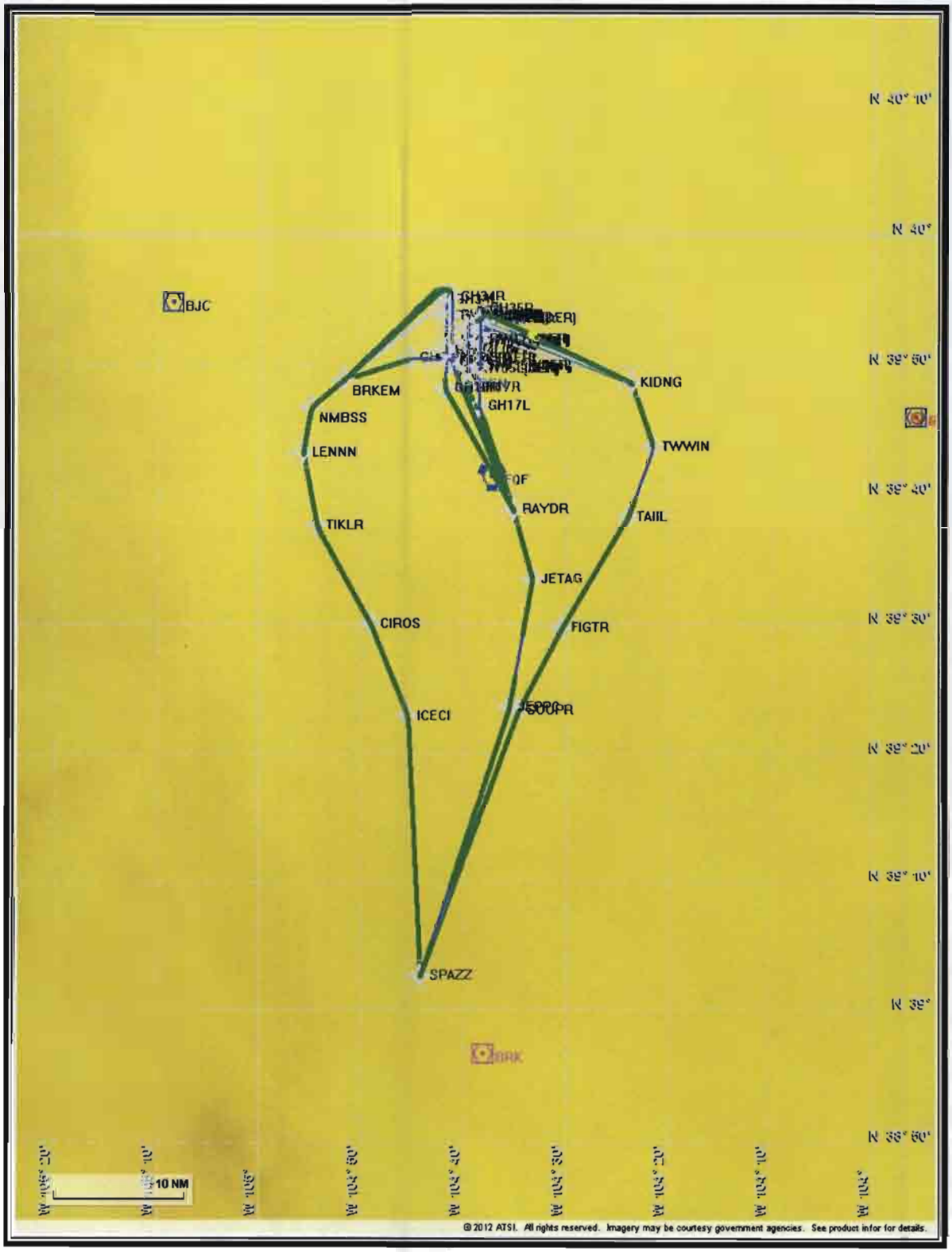
BJC
BRKEM
NMBSS
LENNN
TIKLR
CIROS
ICECI
SPAZZ
GH17L
KIDNG
TWWIN
TAIIL
RAYDR
JETAG
FIGTR
10 NM
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Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
RW35L(...	WP	N 39° 49' 41.93" W 104° 39' 37.99"	5433.8	VNAV	0.0	Fly Over	TF
RW17R(...	WP	N 39° 51' 40.48" W 104° 39' 36.56"	5412.9	VNAV	130.0	Fly Over	VA
GH35L	WP	N 39° 52' 47.69" W 104° 39' 35.75"	5934.0	VNAV	145.0	Fly Over	DF
KIDNG	WP	N 39° 48' 37.67" W 104° 23' 39.58"	9563.0	VNAV	180.0	Fly Over	TF

Climb Gradient:

Table:

450.0 Ft/NM up to **5934.0 Ft MSL**

280.0 Ft/NM up to **15000.0 Ft MSL**

Flyability

Return To Summary

Settings:

Flight Type: Runway Departure
Selected Airport: KDEN
Aircraft Category: Cat D
Climb Gradient:

Table:
450.0 Ft/NM up to **5934.0 Ft MSL**
280.0 Ft/NM up to **15000.0 Ft MSL**

Ground Speeds:

Departure: **120.0 Kts** out to **10.0 NM**
Table:
200.0 Kts up to **11000.0 Ft.**
240.0 Kts up to **18000.0 Ft.**
260.0 Kts up to **24000.0 Ft.**
340.0 Kts up to **99900.0 Ft.**

Wind Settings: *None assigned*
Descent During a Turn: Allowed
VNAV Mode: Flight Plan

Flight Track comes into contact with terrain. Minimum AGL along route was 5.21 Ft.
Flight Track contacted terrain (DTED lvl 0 max) between AER and DER or within 2/3 NM of DER.

DME/DME

Return To Summary

Settings:

RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.165 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: VOR/DME , VORTAC , TACAN , and User
DME Include Angles: 30 to 150
Critical DMEs: Allowed
DoD Facilities: Not included
Foreign Facilities: Not included
Low & Terminal DMEs: Included
Flight Check DMEs: Selected
Higher Altitudes: Evaluated
Near Maximum Altitude: Evaluated
Minimum MSL DMEs Avail: 6080 Ft.

Total Number of DMEs Used: 4

Maximum DME Error: 0.463 NM.

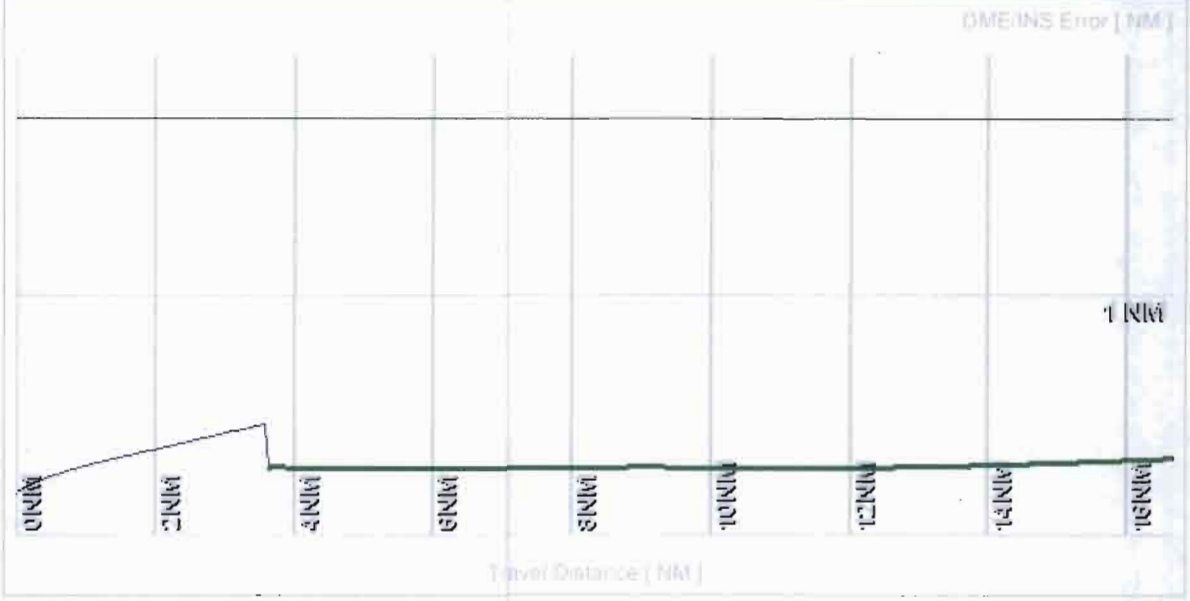
No Critical DMEs were found.

Available DMEs: FQF, DEN, GLL, BJC, DVV

Disabled DMEs: BVR

DME/DME (Continued.)

Return To Summary



DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon/MAGVAR	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	BJC	N 39° 54' 46.87" W 105° 8' 20.47" E 11	H	Database	NO	0.769	Enabled	34.2 %	33.0 %
2	DEN	N 39° 48' 45.05" W 104° 39' 38.66" E 11	H	Database	NO	0.463	Enabled	0.4 %	0.4 %
3	FQF	N 39° 41' 24.50" W 104° 37' 15.50" E 11	H	Database	NO	0.650	Enabled	71.6 %	78.1 %
4	DVV	N 39° 53' 40.88" W 104° 37' 27.61" E 11	H	Database	NO	0.463	Enabled	37.9 %	45.5 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0						
2.0	FQF	DEN				
3.1	FQF	DEN	GLL	BJC	DVV	

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 39° 49' 41.93" W 104° 39' 37.99"	N 39° 53' 15.26" W 104° 39' 24.07"	3.6

VOR: BJC	Available from N 39° 49' 41.93" W 104° 39' 37.99" to N 39° 53' 15.26" W 104° 39' 24.07"
VOR: BVR	Available from N 39° 49' 41.93" W 104° 39' 37.99" to N 39° 53' 15.26" W 104° 39' 24.07"
VOR: DEN	Available from N 39° 49' 41.93" W 104° 39' 37.99" to N 39° 53' 15.26" W 104° 39' 24.07"
VOR: DVV	Available from N 39° 49' 41.93" W 104° 39' 37.99" to N 39° 53' 15.26" W 104° 39' 24.07"
VOR: FQF	Available from N 39° 49' 41.93" W 104° 39' 37.99" to N 39° 53' 15.26" W 104° 39' 24.07"
VOR: GLL	Available from N 39° 50' 31.00" W 104° 39' 37.40" to N 39° 53' 15.26" W 104° 39' 24.07"

DME/DME (Continued.)

Return To Summary

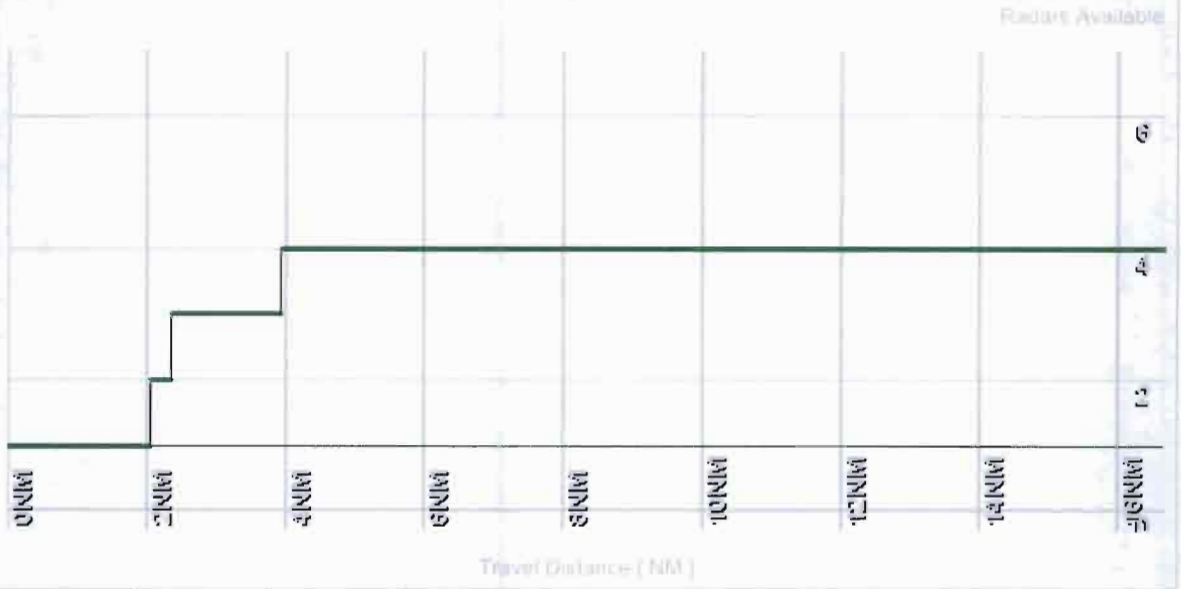
User DMEs

#	Name	Lat/Lon/MAGVAR	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	AKO	N 40° 9' 19.99" W 103° 10' 46.96" E 13	H	4622.8	114.40	AKO	Not Used
		ESV:	Bearing [True]: 226.0° to 255.0° Bearing [Mag]: 213.0° to 242.0°		Arc Distance: Out to 94.0 NM Altitude: 11700.0 to 20000.0 Ft.		
2	LAA	N 38° 11' 49.53" W 102° 41' 15.12" E 12	H	3944.0	116.90	LAA	Not Used
		ESV:	Bearing [True]: 234.0° to 306.0° Bearing [Mag]: 222.0° to 294.0°		Arc Distance: Out to 119.0 NM Altitude: 16300.0 to 22000.0 Ft.		
3	HGO	N 38° 49' 3.00" W 103° 37' 17.00" E 12	H	5233.0	112.10	HGO	Not Used
		ESV:	Bearing [True]: 194.0° to 278.0° Bearing [Mag]: 182.0° to 266.0°		Arc Distance: Out to 91.0 NM Altitude: 16900.0 to 20000.0 Ft.		
4	PUB	N 38° 17' 39.32" W 104° 25' 46.01" E 13	H	4759.4	116.70	PUB	Not Used
		ESV:	Bearing [True]: 239.0° to 285.0° Bearing [Mag]: 226.0° to 272.0°		Arc Distance: Out to 61.0 NM Altitude: 17000.0 to 20000.0 Ft.		

Radar Analysis

Return To Summary

Settings: **Radar Types:** ARSR and ASR



Name:	Martha Dunn
Project Name:	KDEN SPAZZ1
Software:	RNAV-Pro™
Version:	2.36v
Date/Time:	8/31/2012 8:34:14 AM
Input File:	Grid Area Assessment
Databases:	AVNIS Date: 02/07/2012
	Obstacle Date: 08/26/2011
	NFD Date: 09/30/2010
	DTED® (MAX) Date: 2002

Results Summary:

Grid ✓ DME/DME Grid Analysis

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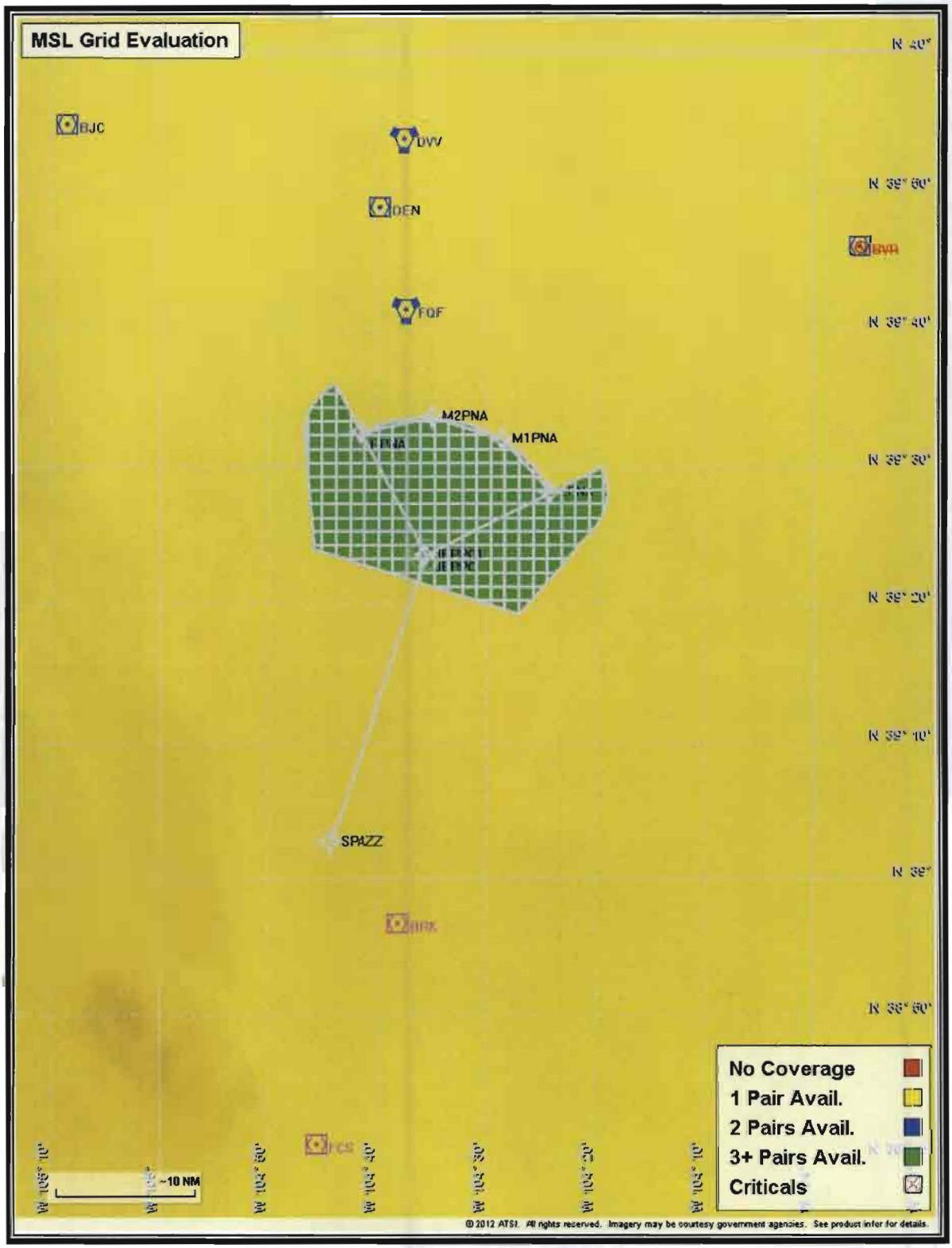
MSL Grid Evaluation
BJC
DVV
DEN
FQF
M2PNA
M1PNA
SPAZZ
~10 NM
No Coverage
1 Pair Avail.
2 Pairs Avail.
3+ Pairs Avail.
Criticals
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DME/DME Grid Analysis

Return To Summary

Coverage Exists

Settings:

Polygon Grid Definition:

1	Lat: N 39° 28' 7.69" Lon: W 104° 24' 3.64"	21	Lat: N 39° 34' 53.50" Lon: W 104° 45' 34.04"
2	Lat: N 39° 29' 57.34" Lon: W 104° 19' 27.83"	22	Lat: N 39° 35' 15.71" Lon: W 104° 45' 9.29"
3	Lat: N 39° 29' 30.47" Lon: W 104° 19' 12.66"	23	Lat: N 39° 35' 35.42" Lon: W 104° 44' 41.22"
4	Lat: N 39° 29' 2.37" Lon: W 104° 19' 1.82"	24	Lat: N 39° 35' 52.33" Lon: W 104° 44' 10.24"
5	Lat: N 39° 28' 33.45" Lon: W 104° 18' 55.49"	25	Lat: N 39° 36' 1.61" Lon: W 104° 43' 49.02"
6	Lat: N 39° 28' 4.15" Lon: W 104° 18' 53.76"	26	Lat: N 39° 32' 27.96" Lon: W 104° 41' 27.17"
7	Lat: N 39° 27' 34.91" Lon: W 104° 18' 56.64"	27	Lat: N 39° 32' 27.96" Lon: W 104° 41' 27.17"
8	Lat: N 39° 27' 6.16" Lon: W 104° 19' 4.10"	28	Lat: N 39° 32' 57.47" Lon: W 104° 40' 0.48"
9	Lat: N 39° 26' 38.32" Lon: W 104° 19' 16.02"	29	Lat: N 39° 33' 18.57" Lon: W 104° 38' 29.77"
10	Lat: N 39° 26' 11.82" Lon: W 104° 19' 32.22"	30	Lat: N 39° 33' 30.93" Lon: W 104° 36' 56.41"
11	Lat: N 39° 25' 47.05" Lon: W 104° 19' 52.47"	31	Lat: N 39° 33' 34.37" Lon: W 104° 35' 21.79"
12	Lat: N 39° 25' 32.21" Lon: W 104° 20' 7.48"	32	Lat: N 39° 33' 28.84" Lon: W 104° 33' 47.34"
13	Lat: N 39° 19' 17.92" Lon: W 104° 26' 57.62"	33	Lat: N 39° 33' 14.42" Lon: W 104° 32' 14.47"
14	Lat: N 39° 24' 1.11" Lon: W 104° 45' 46.01"	34	Lat: N 39° 32' 51.32" Lon: W 104° 30' 44.58"
15	Lat: N 39° 32' 8.23" Lon: W 104° 46' 36.34"	35	Lat: N 39° 32' 19.90" Lon: W 104° 29' 19.02"
16	Lat: N 39° 32' 37.56" Lon: W 104° 46' 37.16"	36	Lat: N 39° 31' 40.63" Lon: W 104° 27' 59.06"
17	Lat: N 39° 33' 6.73" Lon: W 104° 46' 33.36"	37	Lat: N 39° 30' 54.09" Lon: W 104° 26' 45.91"

DME/DME Grid Analysis (Continued.)

Return To Summary

Coverage Exists

Settings:

Polygon Grid Definition:

18	Lat: N 39° 33' 35.34" Lon: W 104° 46' 24.99"	**38**	Lat: N 39° 30' 0.98" Lon: W 104° 25' 40.66"
19	Lat: N 39° 34' 2.94" Lon: W 104° 46' 12.18"	**39**	Lat: N 39° 29' 2.09" Lon: W 104° 24' 44.27"
20	Lat: N 39° 34' 29.12" Lon: W 104° 45' 55.11"	**40**	Lat: N 39° 28' 7.69" Lon: W 104° 24' 3.64"

Lat Step: 1 NM
Lon Step: 1 NM
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Co-Frequencies: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: VOR/DME , VORTAC , and User
DME Include Angles: 30 to 150
DoD Facilities: Not included
Foreign Facilities: Not included
Low & Terminal DMEs: Included
Maximum Possible ESVs Used
Altitude: 10000.0 Ft. MSL

DME/DME Grid Analysis (Continued.)

Return To Summary

Maximum Gap: 0.0 NM

Maximum Critical Gap: 0.0 NM

AGL Altitudes	
Min Cell Altitude	3,215.2 Ft.
Max Cell Altitude	4,291.3 Ft.
Mean Cell Altitude	3,670.7 Ft.
Std. Dev. Cell Altitude	215.5 Ft.

Statistics based only on passing cells

Most Used DMEs: TXC (258), GLL (258), FQF (258), DVV (258), DEN (258), BJC (258), AKO (248), HGO (220), PUB (18), and BRK (1).