Flight Procedure Tracking Form	Action: FLIGHT CHECK	Task Type: STAR	Date Open: 05/16/2011	Task #: 2011031632268101002	Request #: 20110316322681
Procedure: STAR SUNST (RNAV) THREE LAS VEGAS AR KLAS		Airport ID: KLAS	Airport: MC CARRAN INTL		Reimbursable #:
City: LAS VEGAS	ST: NV	GPS #:		Estimated Chart Date: 05/31/2012	FICO #: 1082251
Fac ID:	Fac. Type: Proc D	Specialist: AISHAT NAUZO			

Procedure Review

	Rec'd	Rel'd	Full Name	Comments
Lead:	10/26/2011	03/29/2012	ADOLFO URRUTIA	
QA:	02/22/2012	02/22/2012	STEVEN SZUKALA	
Liaison:	02/22/2012		Terrell	RESUBMIT ENTIRE PKG 3/29/12 - DME/DME

P3

DME / DME

ESV REQUEST INCLUDED

pkg 2 of 2

Procedure Comments:

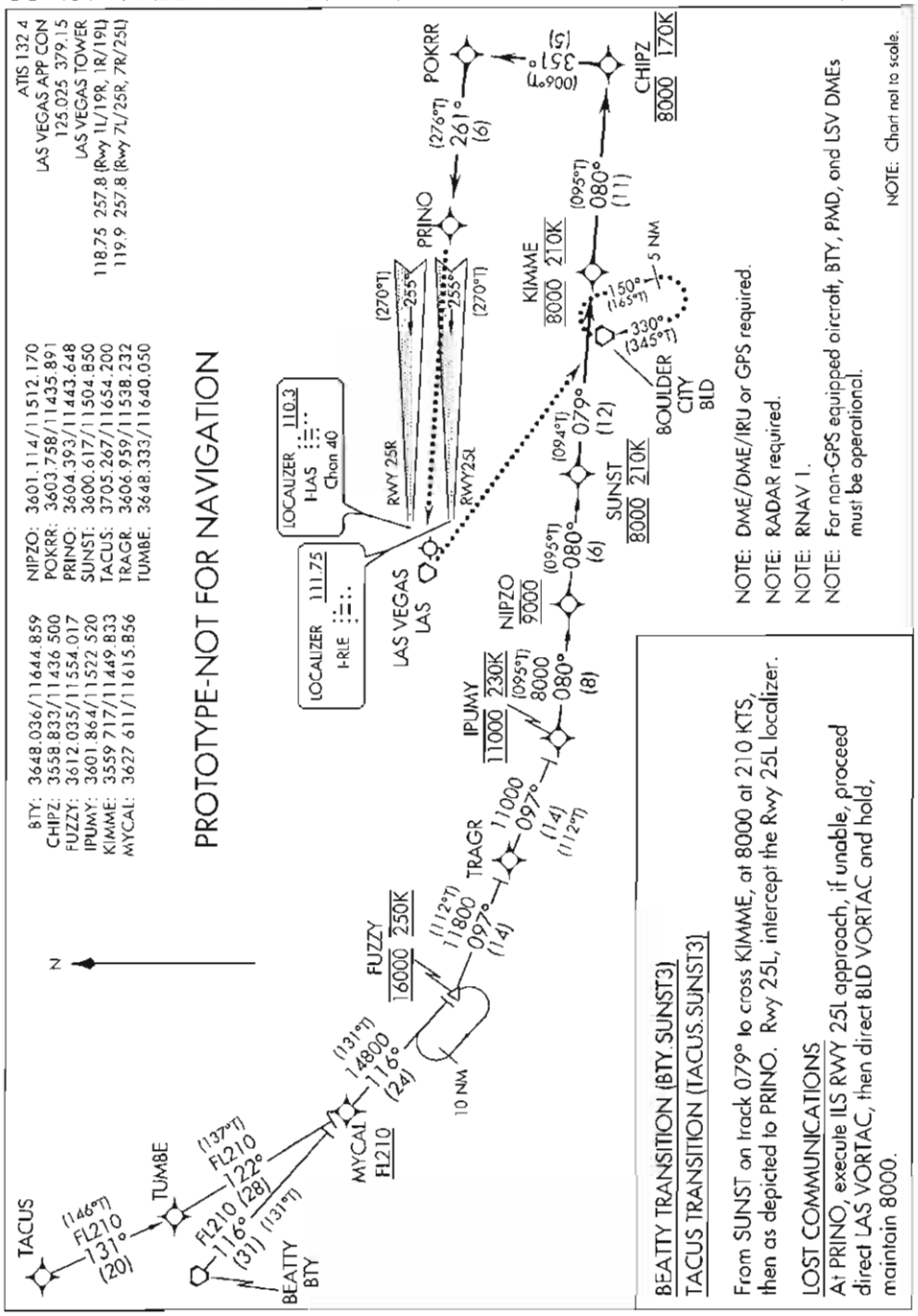
Remark Type: INFORMATION

LAS VEGAS, NV MC CARRAN INTL (KLAS) SUNST THREE (RNAV) (STAR) ENROUTE-YES FC: 4.3.12 PUB: 5.31.12

ATTACHED FORMS: ESV REPORTS; 7100-4; 7100-3; 8260-2(S): BOULDER CITY (BLD) VTAC, REV 12; CHIPZ, REV 3; FUZZY-INT, REV 8; KIMME, REV 2; NIPZO, REV 4; POKRR, REV 2; PRINO-INT, REV 5; SUNST, REV 2; TACUS, REV 2; TRAGR, REV 2; (INFO ONLY) IPUMY-INT, REV 3; MYCAL-INT, REV 1; TUMBE, REV 2.

CONTACT: ADOLFO URRUTIA, AJV-354 LEAD, 405.954.2079:

SUNST THREE ARRIVAL (RNAV)



ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : BOULDER CITY	City : BOULDER CITY	Ident : BLD	State : NV
Type/Class : TACR	Frequency : M1201	Reference No.: 11096505	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 702031-016	202	212	62	120	182

Requirement: KLAS KEPEC STAR, DME/DME/IRU RNAV PRO ASSESSMENT

Signature: Bachman William	Routing Symbol: AJV-W2	Date: 09/16/2011

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 702031-016	202	212	62	120	182	APPROVE

Requirement/Remarks: KLAS KEPEC STAR, DME/DME/IRU RNAV PRO ASSESSMENTApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.

Signature: HEPSEN JOHN	Routing Symbol:	Date: 09/19/2011

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 702031-016	202	212	62	120	182	APPROVE

Requirement/Remarks: KLAS KEPEC STAR, DME/DME/IRU RNAV PRO ASSESSMENTApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.

Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 09/20/2011

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 702031-016	202	212				

Requirement/Remarks:

Signature:	Routing Symbol:	Date:

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : BEATTY	City : BEATTY	Ident : BTY	State : NV
Type/Class : TACR	Frequency : M1181	Reference No.: 11106663	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 704180-020	122	137	92	120	175

Requirement: KLAS KEPEC STAR, D/D/I RNAV PRO ASSESSMENT

Signature: Bachman William	Routing Symbol: AJV-W2	Date: 10/03/2011

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 704180-020	122	137	92	120	175	APPROVE

Requirement/Remarks: KLAS KEPEC STAR, D/D/I RNAV PRO ASSESSMENTApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.

Signature: HEPSEN JOHN	Routing Symbol:	Date: 10/04/2011

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 704180-020	122	137	92	120	175	APPROVE

Requirement/Remarks: KLAS KEPEC STAR, D/D/I RNAV PRO ASSESSMENTApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.

Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 10/05/2011

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 704180-020	122	137				

Requirement/Remarks:

Signature:	Routing Symbol:	Date:

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : DAGGETT	City : DAGGETT	Ident : DAG	State : CA
Type/Class : TACR	Frequency : M1166	Reference No.: 11096506	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 704130-015	25	38	59	120	450

Requirement: KLAS KEPEC STAR, DME/DME/IRU RNAV PRO ASSESSMENT

Signature: Bachman William	Routing Symbol: AJV-W2	Date: 09/16/2011

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 704130-015	25	38	59	120	450	APPROVE

Requirement/Remarks: KLAS KEPEC STAR, DME/DME/IRU RNAV PRO ASSESSMENTApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.

Signature: HEPSEN JOHN	Routing Symbol:	Date: 09/19/2011

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 704130-015	25	38	59	120	450	APPROVE

Requirement/Remarks: KLAS KEPEC STAR, DME/DME/IRU RNAV PRO ASSESSMENTApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.

Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 09/20/2011

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 704130-015	25	38				

Requirement/Remarks:

Signature:	Routing Symbol:	Date:

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : NEEDLES	City : NEEDLES	Ident : EED	State : AZ
Type/Class : TACR	Frequency : M1186	Reference No.: 11096504	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 870584-029	279	296	70	120	152

Requirement: KLAS KEPEC STAR, DME/DME/IRU RNAV PRO ASSESSMENT

Signature: Bachman William	Routing Symbol: AJV-W2	Date: 09/16/2011

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 870584-029	279	296	70	120	152	APPROVE

Requirement/Remarks: KLAS KEPEC STAR, DME/DME/IRU RNAV PRO ASSESSMENTApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.

Signature: HEPSEN JOHN	Routing Symbol:	Date: 09/19/2011

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 870584-029	279	296	70	120	152	APPROVE

Requirement/Remarks: KLAS KEPEC STAR, DME/DME/IRU RNAV PRO ASSESSMENTApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.

Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 09/20/2011

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 870584-029	279	296				

Requirement/Remarks:

Signature:	Routing Symbol:	Date:

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : PALMDALE	City : PALMDALE	Ident : PMD	State : CA
Type/Class : TACR	Frequency : M1179	Reference No.: 11106665	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 698165-016	19	26	145	200	440

Requirement: KLAS KEPEC STAR, D/D/I RNAV PRO ASSESSMENT

Signature: Bachman William	Routing Symbol: AJV-W2	Date: 10/03/2011

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 698165-016	19	26	145	200	440	APPROVE

Requirement/Remarks: KLAS KEPEC STAR, D/D/I RNAV PRO ASSESSMENTApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.

Signature: HEPSEN JOHN	Routing Symbol:	Date: 10/04/2011

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 698165-016	19	26	145	200	440	APPROVE

Requirement/Remarks: KLAS KEPEC STAR, D/D/I RNAV PRO ASSESSMENTApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.

Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 10/05/2011

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 698165-016	19	26				

Requirement/Remarks:

Signature:	Routing Symbol:	Date:

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : NELLIS	City : NELLIS	Ident : LSV	State : NV
Type/Class : NONE	Frequency : M973	Reference No.: 11106660	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
AF 962918-004	274	284	93	200	450

Requirement: KLAS SUNST STAR, D/D/I RNAV PRO ASSESSMENT

Signature: Bachman William	Routing Symbol: AJV-W2	Date: 10/03/2011

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
AF 962918-004	274	284	93	200	450	APPROVE

Requirement/Remarks: KLAS SUNST STAR, D/D/I RNAV PRO ASSESSMENTApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.

Signature: HEPSEN JOHN	Routing Symbol:	Date: 10/04/2011

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
AF 962918-004	274	284	93	200	450	APPROVE

Requirement/Remarks: KLAS SUNST STAR, D/D/I RNAV PRO ASSESSMENTApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.

Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 10/05/2011

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
AF 962918-004	274	284				

Requirement/Remarks:

Signature:	Routing Symbol:	Date:

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : BEATTY	City : BEATTY	Ident : BTY	State : NV
Type/Class : TACR	Frequency : M1181	Reference No.: 11106662	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 704180-019	104	122	65	117	175

Requirement: KLAS SUNST STAR, D/D/I RNAV PRO ASSESSMENT

Signature: Bachman William	Routing Symbol: AJV-W2	Date: 10/03/2011

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 704180-019	104	122	65	117	175	APPROVE

Requirement/Remarks: KLAS SUNST STAR, D/D/I RNAV PRO ASSESSMENTApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.

Signature: HEPSEN JOHN	Routing Symbol:	Date: 10/04/2011

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 704180-019	104	122	65	117	175	APPROVE

Requirement/Remarks: KLAS SUNST STAR, D/D/I RNAV PRO ASSESSMENTApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.

Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 10/05/2011

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 704180-019	104	122				

Requirement/Remarks:

Signature:	Routing Symbol:	Date:

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : BOULDER CITY	City : BOULDER CITY	Ident : BLD	State : NV
Type/Class : TACR	Frequency : M1201	Reference No.: 11106664	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 702031-017	269	285	50	117	182

Requirement: KLAS SUNST STAR, D/D/I RNAV PRO ASSESSMENT

Signature: Bachman William	Routing Symbol: AJV-W2	Date: 10/03/2011

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 702031-017	269	285	50	117	182	APPROVE

Requirement/Remarks: KLAS SUNST STAR, D/D/I RNAV PRO ASSESSMENTApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.

Signature: HEPSEN JOHN	Routing Symbol:	Date: 10/04/2011

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 702031-017	269	285	50	117	182	APPROVE

Requirement/Remarks: KLAS SUNST STAR, D/D/I RNAV PRO ASSESSMENTApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.

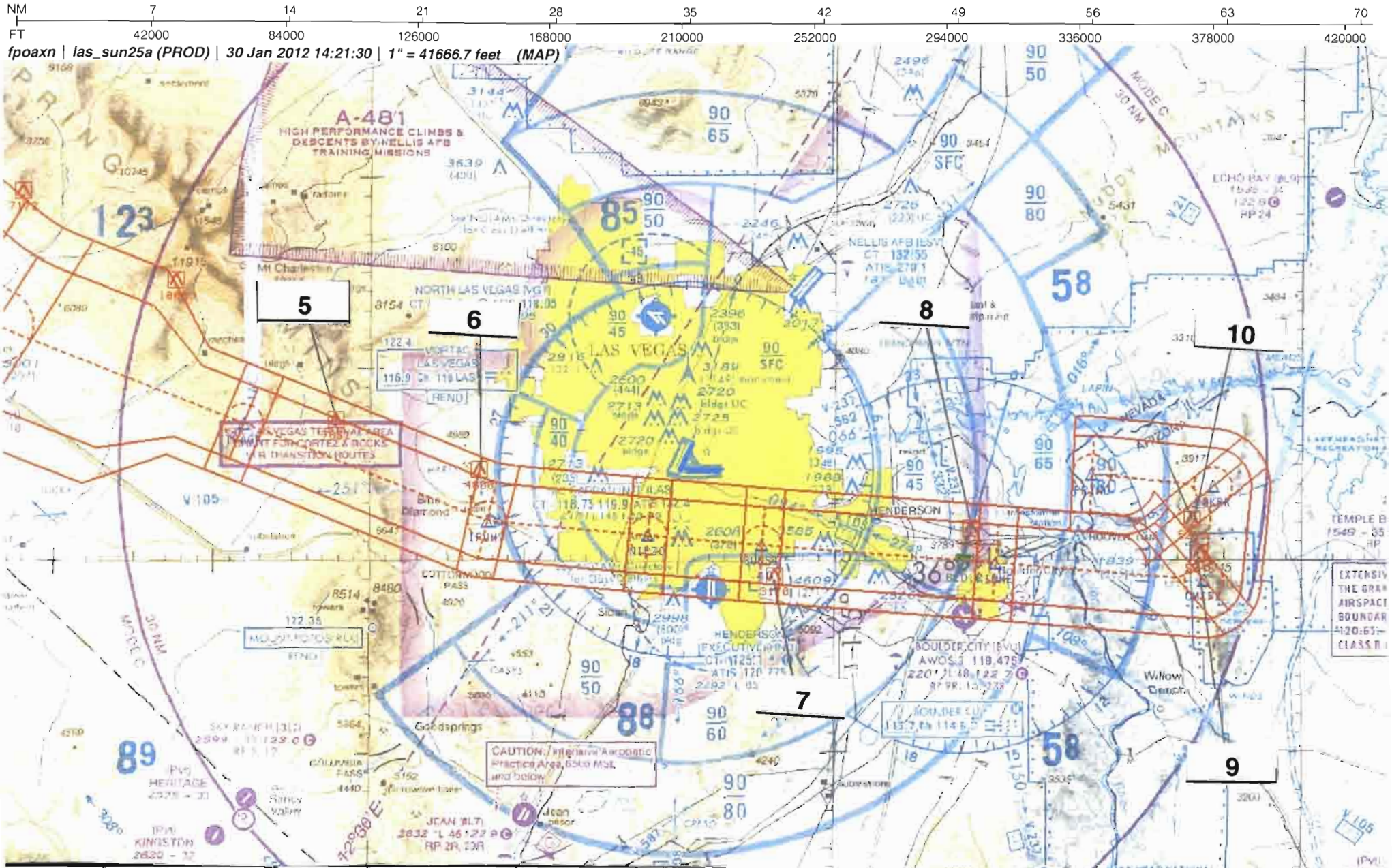
Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 10/05/2011

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 702031-017	269	285				

Requirement/Remarks:

Signature:	Routing Symbol:	Date:



Airport ID:	KLAS	ID	SEGMENT	OBSTRUCTION	ELEV
Apt Name:	MC CARRAN INTL	5	TRAGR-IPUMY	AAO	7651
City:	LAS VEGAS	6	IPUMY-NIPZO	AAO	4600
State:	NEVADA	7	NIPZO-SUNST	AAO	3170
Proc ID:	SUNST THREE RNAV	8	SUNST-KIMME	AAO	3989
Number:	3	9	KIMME-CHIPZ	AAO	5645
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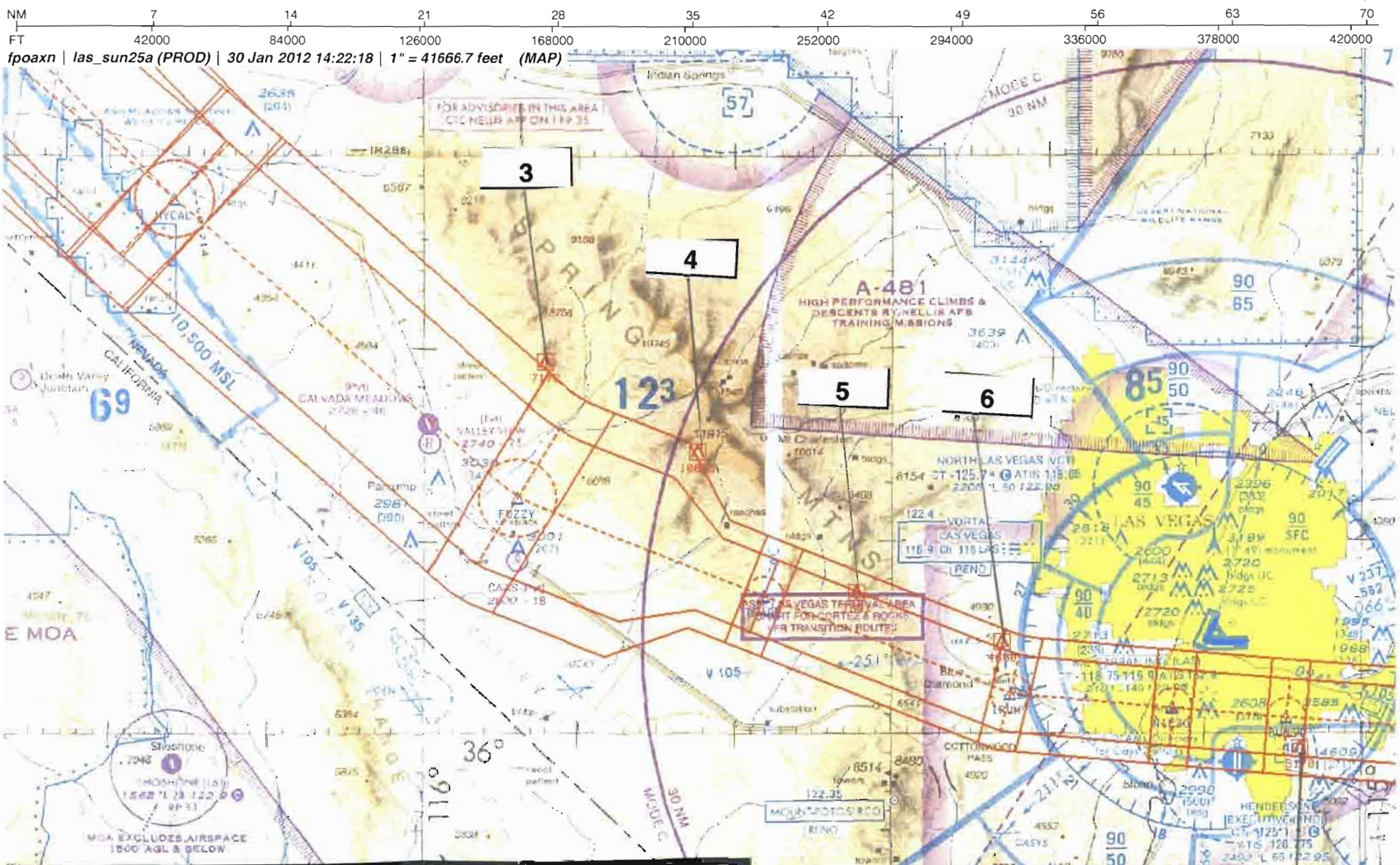

Airport ID:	KLAS
Apt Name:	MC CARRAN INTL
City:	LAS VEGAS
State:	NEVADA
Proc ID:	SUNST THREE RNAV
Number:	3
Scale:	1:500,000
	PG 2 OF 5

ID	SEGMENT	OBSTRUCTION	ELEV
3	MYCAL-FUZZY	AAO	7172
4	FUZZY-TRAGR	AAO	10063
5	TRAGR-IPUMY	AAO	7651
6	IPUMY-NIPZO	AAO	4600
7	NIPZO-SUNST	AAO	3170

NM 7 14 21 28 35 42 49

FT 42000 84000 126000 168000 210000 252000 294000

fpoaxn | las_sun25a (PROD) | 30 Jan 2012 14:23:22 | 1" = 41666.7 feet (MAP)

Airport ID:	KLAS	ID	SEGMENT	OBSTRUCTION	ELEV
Apt Name:	MC CARRAN INTL	2	BTY VTAC-MYCAL	AAO	6070
City:	LAS VEGAS	1	TACUS-TUMBE	AAO	6517
State:	NEVADA	1	TUMBE-MYCAL	AAO	6517
Proc ID:	SUNST THREE RNAV				
Number:	3				
Scale:	1:500,000				
	PG 3 OF 5				

NM 7 14 21 28 35 42 49

FT 42000 84000 126000 168000 210000 252000 294000

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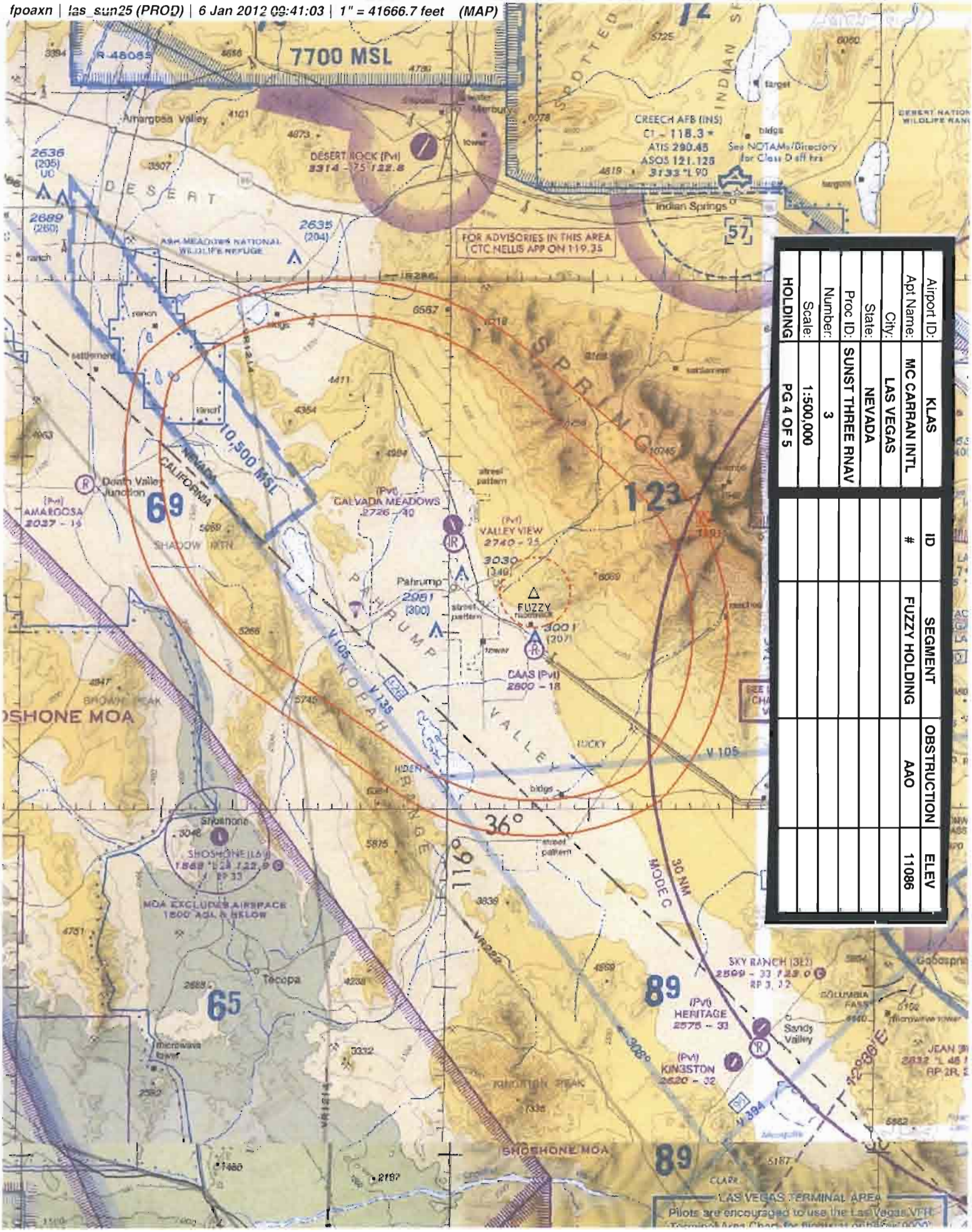

Airport ID:	KLAS	ID	SEGMENT	OBSTRUCTION	ELEV
Apt Name:	MC CARRAN INTL	#	FUZZY HOLDING	AAO	11086
City:	LAS VEGAS				
State:	NEVADA				
Proc ID:	SUNST THREE RNAV				
Number:	3				
Scale:	1:500,000				
HOLDING	PG 4 OF 5				

NM 7 14 21 28 35 42 49

FT 42000 84000 126000 168000 210000 252000 294000

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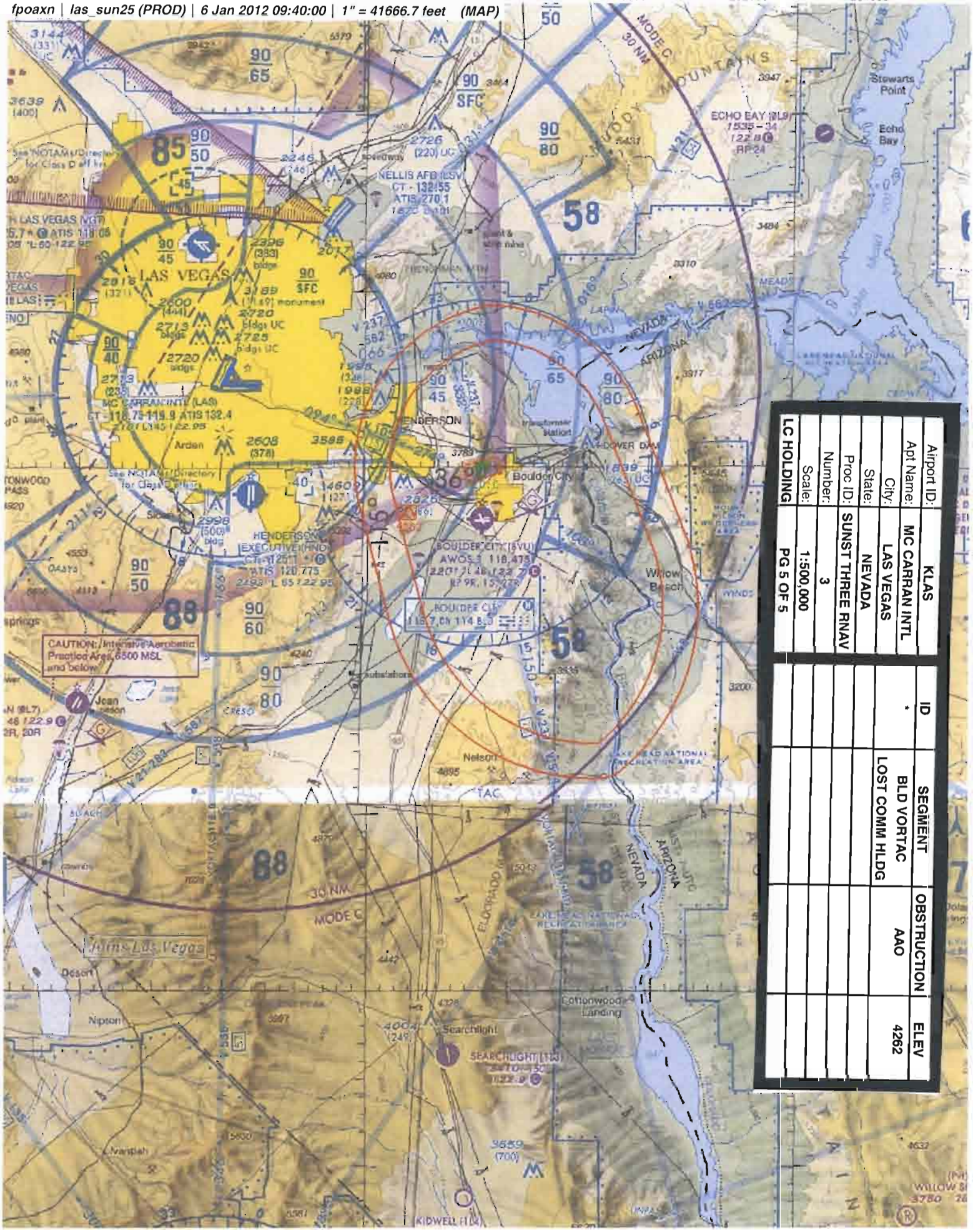


Airport ID:	KLAS
Apt Name:	MC CARRAN INTL
City:	LAS VEGAS
State:	NEVADA
Proc ID:	SUNST THREE RNAV
Number:	3
Scale:	1:500,000
LC HOLDING	PG 5 OF 5

ID	SEGMENT	OBSTRUCTION	ELEV
*	BLD VORTAC	AAO	4262
	LOST COMM HLDG		

US Department of Transportation
Federal Aviation Administration

STAR - Standard Terminal Arrival

1. Bearings, headings, courses and radials are listed to the nearest hundredth (e.g. 360.00)
2. Distances are in nautical miles to nearest hundredth (e.g. 00.00)
3. Altitudes are minimum altitudes unless otherwise indicated

(1) Transition Routes

(a) Transition Name	(b) Transition Computer Codes	(c) From RNAV WP / FIX / NAVAID	(d) To RNAV WP / FIX / NAVAID	(e) Mag Course / Distance	(f) MEA	(g) MOCA	(h) MAA	(i) Crossing Altitudes / Fixes
BEATTY	BTY.SUNST3	BTY VORTAC	BTY VORTAC					
			MYCAL WP	116.00/31.00	21000			AT/ABOVE FL210
			FUZZY WP	116.29/23.52	14800			AT 16000
			TRAGR WP	96.55/13.75	11800			
			IPUMY WP	96.70/13.72	11000			AT 11000
			NIPZO WP	80.04/08.43	8000			AT 9000
			SUNST WP	79.74/05.96	8000			AT 8000
TACUS	TACUS.SUNST3	TACUS WP	TACUS WP					
			TUMBE WP	131.08/20.36	21000			
			MYCAL WP	121.62/28.42	21000			AT/ABOVE FL210
			FUZZY WP	116.29/23.52	14800			AT 16000
			TRAGR WP	96.55/13.75	11800			
			IPUMY WP	96.70/13.72	11000			AT 11000
			NIPZO WP	80.04/08.43	8000			AT 9000

(2) Arrival Route Description: FROM SUNST ON TRACK 079.14/12.22 TO CROSS KIMME AT 8000 AT 210 KTS, THEN AS DEPICTED TO PRINO (MEA 8000). RWY 25L, INTERCEPT THE RWY 25L LOCALIZER.

(3) Procedural Data Notes: NOTE: DME/DME/IRU OR GPS REQUIRED.
NOTE: RADAR REQUIRED.
NOTE: RNAV 1.
NOTE: FOR NON-GPS EQUIPPED AIRCRAFT, BTY, PMD, and LSV DME's MUST BE OPERATIONAL.

(4) Fixes and/or Holding Patterns: CHART HOLDING AT FUZZY (HOLD NW, RT, 116.00 INBOUND).
CHART HOLDING AT BLD VORTAC (HOLD SE, RT, 330.00 INBOUND).
CHART LAS VORTAC.

(5) Communications: ATIS, LAS VEGAS APP CON, LAS VEGAS TOWER (RWY 1L/19R, 1R/19L), (RWY 7L/25R, 7R/25L).

QUALITY CHECKED

(6) Arrival Name	(7) Number	(8) STAR Computer Code	(9) Superseded Nr.	(10) Dated	(11) Effective Date
SUNST RNAV	THREE	SUNST.SUNST3	TWO	23 NOV 06	

(12) Airports Served	
Airport Name McCARRAN INTERNATIONAL	City/State LAS VEGAS, NEVADA
Airport Name	City/State
Airport Name	City/State
Airport Name	City/State
Airport Name	City/State
Airport Name	City/State

(13) Lost Communications Procedure: AT PRINO, EXECUTE ILS RWY 25L APPROACH, IF UNABLE, PROCEED DIRECT LAS VORTAC, THEN DIRECT BLD VORTAC AND HOLD, MAINTAIN 8000.

(14) Remarks:

(15) Additional Flight Data: REFERENCE MAGNETIC VARIATION: KLAS 15E/1980
DME/DME ASSESSMENT: SAT (RNP 1.0)

CHART I-LAS LOCALIZER, I-RLE LOCALIZER
CHART: MYCAL AT OR ABOVE FL210
CHART: FUZZY AT 16000 AT 250KTS
CHART: IPUMY AT 11000 AT 230KTS
CHART: NIPZO AT 9000
CHART: SUNST AT 8000 AT 210KTS
CHART: KIMME AT 8000 AT 210KTS
CHART: CHIPZ AT 8000 AT 170KTS

QUALITY CHECKED

(6) Arrival Name	(7) Number	(8) STAR Computer Code	(9) Superseded Nr.	(10) Dated	(11) Effective Date
SUNST RNAV	THREE	SUNST.SUNST3	TWO	23 NOV 06	

(16) Continuation:

(1) Transition Routes

(a) Transition Name	(b) Transition Computer Codes	(c) From RNAV WP / FIX / NAVAID	(d) To RNAV WP / FIX / NAVAID	(e) Mag Course / Distance	(f) MEA	(g) MOCA	(h) MAA	(i) Crossing Altitudes / Fixes
			SUNST WP	79.74/05.96	8000			AT 8000

(17) Changes: 1. NIPZO SPEED RESTRICTION REMOVED.
2. 230KT SPEED RESTRICTION ADDED AT IPUMY.
3. ARRIVAL ROUTE DESCRIPTION CHANGED TO CONNECT RWY 25L ILS TO STAR.
4. PROCEDURE CRITICAL DME'S CHANGED.
5. ROUTE MEA'S RAISED ON SOME LEG SEGMENTS.
6. POKRR RELOCATED.

(18) Reasons for Changes: 1. ATC AND USER REQUEST.
2. ATC AND USER REQUEST.
3. ATC REQUEST.
4. RNAV PRO ASSESSMENT.
5. REQUIRED FOR D/D/I OPERATIONS.
6. CRITERIA REQUIREMENT.

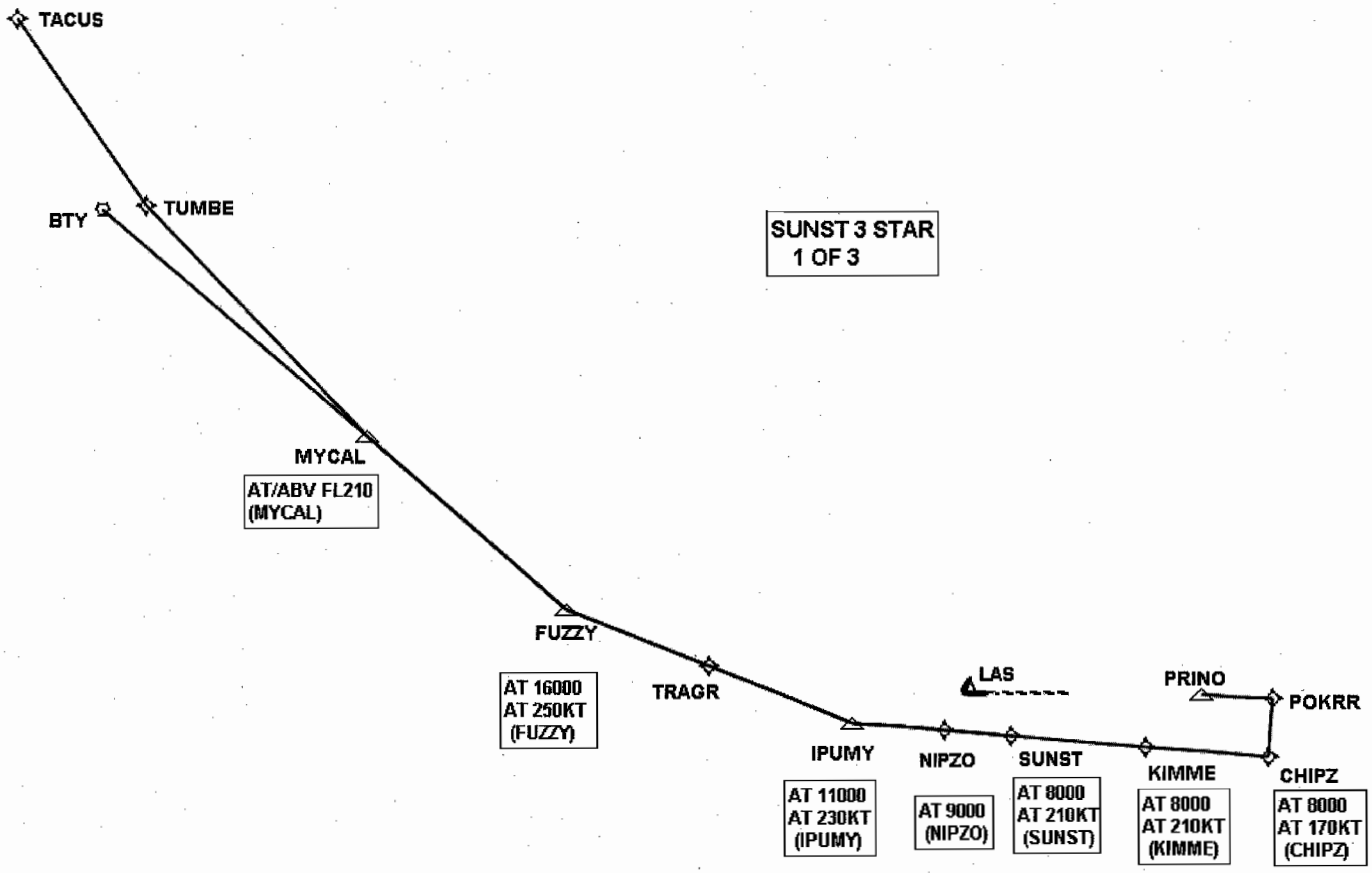
03/28/12: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 01/20/12.
1. UPDATED ARINC CODING.
2. REMOVED BLD VORTAC FROM ARINC CODING.

		Name (Typed and Signed), Title and Organization	DATE
Developed By		Mark Kuck, ZLA Support Manager, Airspace and Procedures	
Approved	**NFPG**		
	Reg. ATD	John Warner, WSC Operations Support Group Manager, AJV-W2	

QUALITY CHECKED

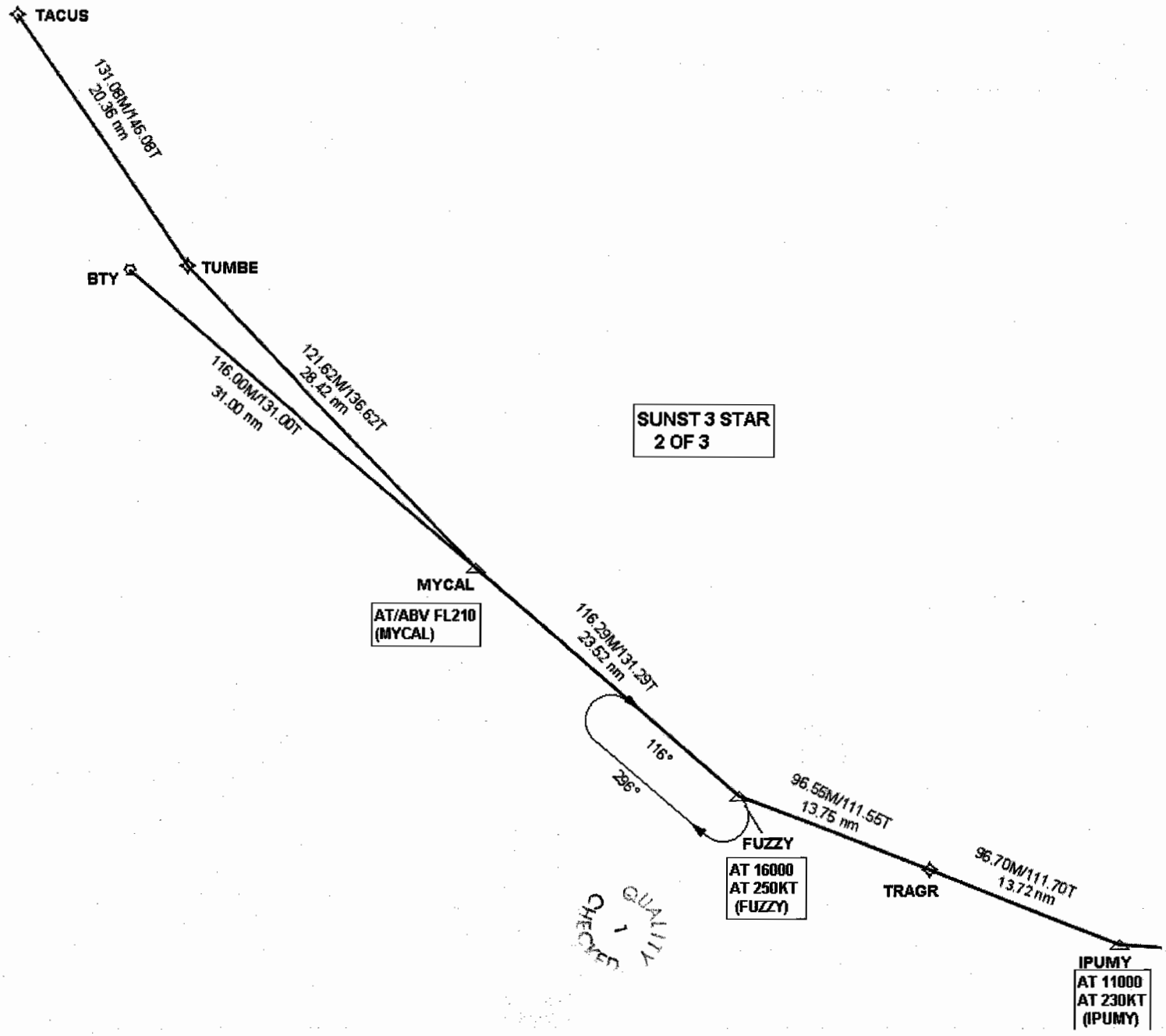
(6) Arrival Name	(7) Number	(8) STAR Computer Code	(9) Superseded Nr.	(10) Dated	(11) Effective Date
SUNST RNAV	THREE	SUNST.SUNST3	TWO	23 NOV 06	

(19) Graphic Depiction (1 of 3)



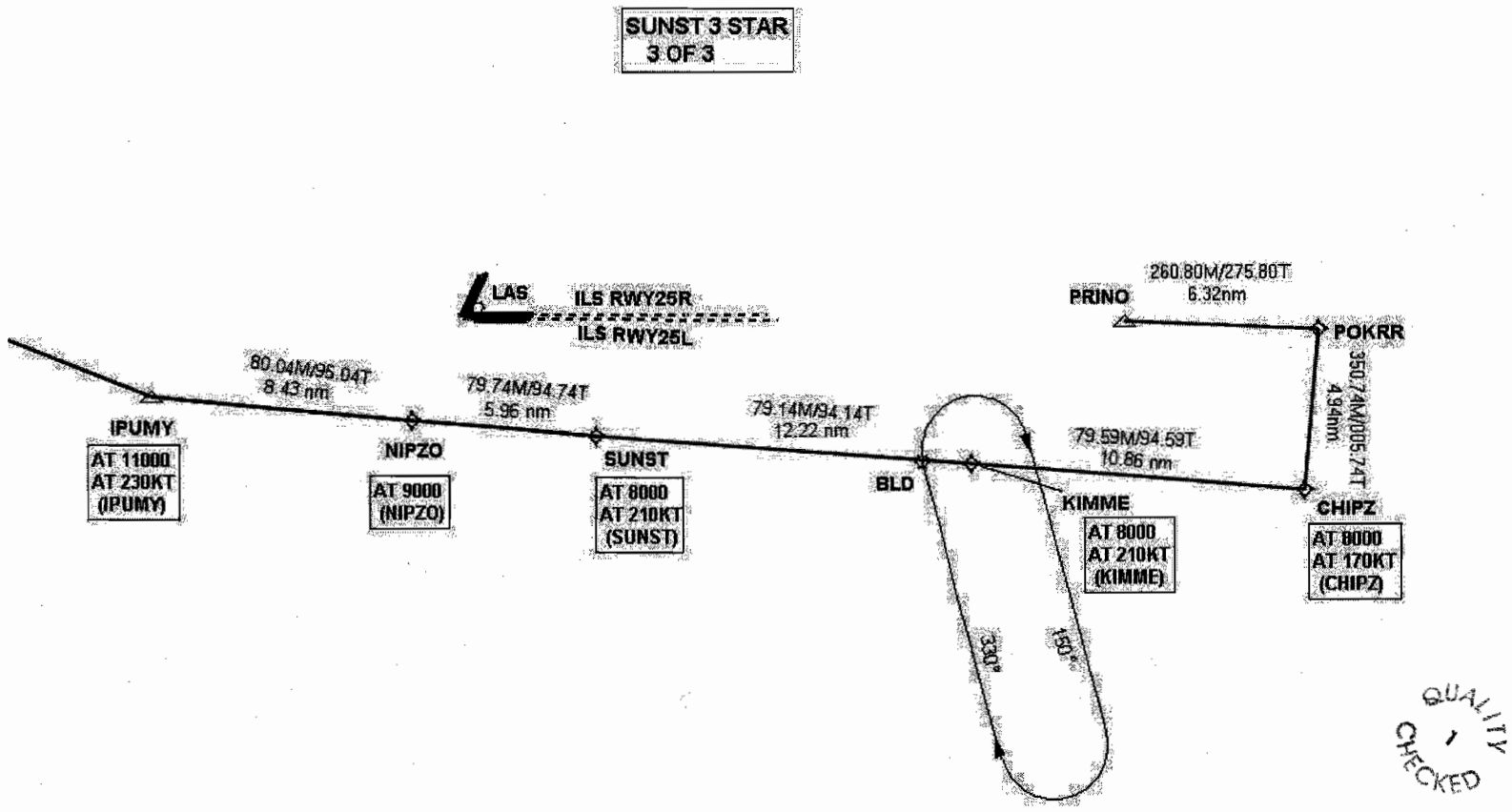
QUALITY CHECKED

(19) Graphic Depiction (2 of 3)



QUALITY 1 CHECKED

(19) Graphic Depiction (3 of 3)



QUALITY CHECKED

US Department of Transportation
Federal Aviation Administration

RNAV STAR (Data Record)

(1) FIX/NAVAID	(2) LAT/LONG	(3) C	(4) FO/FB	(5) LEG	(6) TC	(7) DIST	(8) ALTITUDE	(9) SPEED	(10) REMARKS
En Route Transition									
BTY VORTAC	364802.11N / 1164451.51W	Y		IF					BTY.SUNST3
MYCAL WP	362736.65N / 1161551.34W	Y	FB	TF	131.00	31.00	+FL210		
FUZZY WP	361202.07N / 1155401.01W	Y	FB	TF	131.29	23.52	16000	250K	
TRAGR WP	360657.56N / 1153813.94W	Y	FB	TF	111.55	13.75			
IPUMY WP	360151.82N / 1152231.18W	Y	FB	TF	111.70	13.72	11000	230K	
NIPZO WP	360106.84N / 1151210.17W	Y	FB	TF	095.04	08.43	9000		
SUNST WP	360037.00N / 1150451.00W	Y	FB	TF	094.74	05.96	8000	210K	

QUALITY CHECKED

(11) Arrival Name	(12) Number	(13) STAR Computer Code	(14) Superseded Nr.	(15) Dated	(16) Effective Date
SUNST RNAV	THREE	SUNST.SUNST3	TWO	23 NOV 06	

FAA Form 7100-3 (9/02)

US Department of Transportation
Federal Aviation Administration

RNAV STAR (Data Record)

(1) FIX/NAVAID	(2) LAT/LONG	(3) C	(4) FO/FB	(5) LEG	(6) TC	(7) DIST	(8) ALTITUDE	(9) SPEED	(10) REMARKS
En Route Transition									
TACUS WP	370516.00N / 1165412.00W	Y		IF					TACUS.SUNST3
TUMBE WP	364820.00N / 1164003.00W	Y	FB	TF	146.08	20.36			
MYCAL WP	362736.65N / 1161551.34W	Y	FB	TF	136.62	28.42	+FL210		
FUZZY WP	361202.07N / 1155401.01W	Y	FB	TF	131.29	23.52	16000	250K	
TRAGR WP	360657.56N / 1153813.94W	Y	FB	TF	111.55	13.75			
IPUMY WP	360151.82N / 1152231.18W	Y	FB	TF	111.70	13.72	11000	230K	
NIPZO WP	360106.84N / 1151210.17W	Y	FB	TF	095.04	08.43	9000		
SUNST WP	360037.00N / 1150451.00W	Y	FB	TF	094.74	05.96	8000	210K	
Common Route									
SUNST WP	360037.00N / 1150451.00W	Y		IF			8000	210K	
KIMME WP	355943.00N / 1144950.00W	Y	FB	TF	094.14	12.22	8000	210K	
CHIPZ WP	355850.00N / 1143630.00W	Y	FB	TF	094.59	10.86	8000	170K	
POKRR WP	360345.49N / 1143553.43W	Y	FB	TF	005.74	04.94			
PRINO WP	360423.60N / 1144338.86W	Y	FB	TF	275.80	06.32			

QUALITY CHECKED

(11) Arrival Name	(12) Number	(13) STAR Computer Code	(14) Superseded Nr.	(15) Dated	(16) Effective Date
SUNST RNAV	THREE	SUNST.SUNST3	TWO	23 NOV 06	

FAA Form 7100-3 (9/02)

US Department of Transportation
Federal Aviation Administration

STAR (Data Record)

ARINC PACKET - 424-18 - STAR

```
                 1         2         3         4         5         6         7         8         9         0         1         2         3
NAVAID  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAD         BTY   K2011470VTHA N36480215W116445151    N36480215W116445151E0160029282     NARBEATTY

                 1         2         3         4         5         6         7         8         9         0         1         2         3
WP      123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAEAENRT   CHIPZ K20    W     N35585000W114363000                    E0121     NAR           CHIPZ
        SUSAEAENRT   FUZZY K20    C   H N36120207W115540101                    E0124     NAR           FUZZY
        SUSAEAENRT   IPUMY K20    C     N36015182W115223118                    E0123     NAR           IPUMY
        SUSAEAENRT   KIMME K20    W     N35594300W114495000                    E0121     NAR           KIMME
        SUSAEAENRT   MYCAL K20    C     N36273665W116155134                    E0126     NAR           MYCAL
        SUSAEAENRT   NIPZO K20    W     N36010684W115121017                    E0122     NAR           NIPZO
        SUSAEAENRT   POKRR K20    W     N36034549W114355343                    E0121     NAR           POKRR
        SUSAEAENRT   PRINO K20    C     N36042360W114433886                    E0121     NAR           PRINO
        SUSAEAENRT   SUNST K20    W     N36003700W115045100                    E0122     NAR           SUNST
        SUSAEAENRT   TACUS K20    W   H N37051600W116541200                    E0129     NAR           TACUS
        SUSAEAENRT   TRAGR K20    W     N36065756W115381394                    E0124     NAR           TRAGR
        SUSAEAENRT   TUMBE K20    W   H N36482000W116400300                    E0127     NAR           TUMBE

                 1         2         3         4         5         6         7         8         9         0         1         2         3
AIRPORT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KLASK2ALAS     0     145YHN36044820W115090810E015002181         1800018000C    MNAR    MC CARRAN INTL

                 1         2         3         4         5         6         7         8         9         0         1         2         3
SEGMENT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KLASK2ESUNST34BTY   010BTY  K2D 0V       IF                                                  18000
        SUSAP KLASK2ESUNST34BTY   020MYCALK2EA0E    010TF                    11600310    + FL210
        SUSAP KLASK2ESUNST34BTY   030FUZZYK2EA0E  H 010TF                    11630235      16000          250
        SUSAP KLASK2ESUNST34BTY   040TRAGRK2EA0E    010TF                    09660138
        SUSAP KLASK2ESUNST34BTY   050IPUMYK2EA0E    010TF                    09670137      11000          230
        SUSAP KLASK2ESUNST34BTY   060NIPZOK2EA0E    010TF                    08000084      09000
        SUSAP KLASK2ESUNST34BTY   070SUNSTK2EA0EE   010TF                    07970060      08000          210
        SUSAP KLASK2ESUNST34TACUS 010TACUSK2EA0E       IF                                                  18000
        SUSAP KLASK2ESUNST34TACUS 020TUMBEK2EA0E    010TF                    13110204
        SUSAP KLASK2ESUNST34TACUS 030MYCALK2EA0E    010TF                    12160284    + FL210
        SUSAP KLASK2ESUNST34TACUS 040FUZZYK2EA0E  H 010TF                    11630235      16000          250
```

QUALITY CHECKED

(11) Arrival Name	(12) Number	(13) STAR Computer Code	(14) Superseded Nr.	(15) Dated	(16) Effective Date
SUNST RNAV	THREE	SUNST.SUNST3	TWO	23 NOV 06	

FAA Form 7100-3 (9/02)

```
        SUSAP KLASK2ESUNST34TACUS 050TRAGRK2EA0E    010TF                    09660138
        SUSAP KLASK2ESUNST34TACUS 060IPUMYK2EA0E    010TF                    09670137      11000          230
        SUSAP KLASK2ESUNST34TACUS 070NIPZOK2EA0E    010TF                    08000084      09000
        SUSAP KLASK2ESUNST34TACUS 080SUNSTK2EA0EE   010TF                    07970060      08000          210
        SUSAP KLASK2ESUNST35ALL   010SUNSTK2EA0E       IF                                 08000     18000210
        SUSAP KLASK2ESUNST35ALL   020KIMMEK2EA0E    010TF                    07910122      08000          210
        SUSAP KLASK2ESUNST35ALL   030CHIPZK2EA0E    010TF                    07960109      08000          170
        SUSAP KLASK2ESUNST35ALL   040POKRRK2EA0E    010TF                    35070049
        SUSAP KLASK2ESUNST35ALL   050PRINOK2EA0EE   010TF                    26080063
                  1         2         3         4         5         6         7         8         9         0         1         2         3
RUNWAY  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KLASK2GRW01L   0089850099 N36043644W115101030-1000    +0635402176058459150IICUA1
        SUSAP KLASK2GRW01R   0097750099 N36043168W115100043-1000    +0633602170049150150R
        SUSAP KLASK2GRW07L   0145100749 N36043495W115094663-1000    +0629002155213976150V
        SUSAP KLASK2GRW07R   0105260749 N36042506W115094116-1000    +0629502157000061150V
        SUSAP KLASK2GRW19L   0097751899 N36054706W115091728+1000    +0606202080087875150R
        SUSAP KLASK2GRW19R   0089851899 N36055176W115092719+1000    +0608702089000075150R
        SUSAP KLASK2GRW25L   0105262550 N36042516W115073296+1000    +0596302048000066150IIRLE1
        SUSAP KLASK2GRW25R   0145102550 N36043505W115073297+1000    +0595002044139766150IILAS1
```

QUALITY 1 CHECKED

(11) Arrival Name	(12) Number	(13) STAR Computer Code	(14) Superseded Nr.	(15) Dated	(16) Effective Date
SUNST RNAV	THREE	SUNST.SUNST3	TWO	23 NOV 06	

US Department of Transportation
Federal Aviation Administration

STAR (Data Record)

ARINC SUMMARY - 424-18 - STAR

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	BTY	BTY	010		IF		FB					
	BTY	MYCAL	020		TF		FB	1.0	116.0()	031.0	AA FL210	
	BTY	FUZZY	030		TF		FB	1.0	116.3()	023.5	AT 16000	AT 250
	BTY	TRAGR	040		TF		FB	1.0	096.6()	013.8		
	BTY	IPUMY	050		TF		FB	1.0	096.7()	013.7	AT 11000	AT 230
	BTY	NIPZO	060		TF		FB	1.0	080.0()	008.4	AT 09000	
	BTY	SUNST	070		TF		FB	1.0	079.7()	006.0	AT 08000	AT 210
	TACUS	TACUS	010		IF		FB					
	TACUS	TUMBE	020		TF		FB	1.0	131.1()	020.4		
	TACUS	MYCAL	030		TF		FB	1.0	121.6()	028.4	AA FL210	
	TACUS	FUZZY	040		TF		FB	1.0	116.3()	023.5	AT 16000	AT 250
	TACUS	TRAGR	050		TF		FB	1.0	096.6()	013.8		
	TACUS	IPUMY	060		TF		FB	1.0	096.7()	013.7	AT 11000	AT 230
	TACUS	NIPZO	070		TF		FB	1.0	080.0()	008.4	AT 09000	
	TACUS	SUNST	080		TF		FB	1.0	079.7()	006.0	AT 08000	AT 210
	ALL	SUNST	010		IF		FB				AT 08000	AT 210
	ALL	KIMME	020		TF		FB	1.0	079.1()	012.2	AT 08000	AT 210
	ALL	CHIPZ	030		TF		FB	1.0	079.6()	010.9	AT 08000	AT 170
	ALL	POKRR	040		TF		FB	1.0	350.7()	004.9		
	ALL	PRINO	050		TF		FB	1.0	260.8()	006.3		

POINT DATA

WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
BTY	N364802.15	W1164451.51	N3648.036	W11644.859
CHIPZ	N355850.00	W1143630.00	N3558.833	W11436.500
FUZZY	N361202.07	W1155401.01	N3612.035	W11554.017
IPUMY	N360151.82	W1152231.18	N3601.864	W11522.520
KIMME	N355943.00	W1144950.00	N3559.717	W11449.833
MYCAL	N362736.65	W1161551.34	N3627.611	W11615.856
NIPZO	N360106.84	W1151210.17	N3601.114	W11512.170
POKRR	N360345.49	W1143553.43	N3603.758	W11435.891
PRINO	N360423.60	W1144338.86	N3604.393	W11443.648
SUNST	N360037.00	W1150451.00	N3600.617	W11504.850
TACUS	N370516.00	W1165412.00	N3705.267	W11654.200
TRAGR	N360657.56	W1153813.94	N3606.959	W11538.232
TUMBE	N364820.00	W1164003.00	N3648.333	W11640.050
RW01L	N360436.44	W1151010.30	N3604.607	W11510.172
RW01R	N360431.68	W1151000.43	N3604.528	W11510.007

QUALITY CHECKED

(11) Arrival Name	(12) Number	(13) STAR Computer Code	(14) Superseded Nr.	(15) Dated	(16) Effective Date
SUNST RNAV	THREE	SUNST.SUNST3	TWO	23 NOV 06	

FAA Form 7100-3 (9/02)

RW07L	N360434.95	W1150946.63	N3604.583	W11509.777
RW07R	N360425.06	W1150941.16	N3604.418	W11509.686
RW19L	N360547.06	W1150917.28	N3605.784	W11509.288
RW19R	N360551.76	W1150927.19	N3605.863	W11509.453
RW25L	N360425.16	W1150732.96	N3604.419	W11507.549
RW25R	N360435.05	W1150732.97	N3604.584	W11507.550

RUNWAY DATA

RWY	THRESHOLD ELEVATION	TCH
RW01L	02176	59
RW01R	02170	50
RW07L	02155	76
RW07R	02157	61
RW19L	02080	75
RW19R	02089	75
RW25L	02048	66
RW25R	02044	66

QUALITY CHECKED

(11) Arrival Name	(12) Number	(13) STAR Computer Code	(14) Superseded Nr.	(15) Dated	(16) Effective Date
SUNST RNAV	THREE	SUNST.SUNST3	TWO	23 NOV 06	

RADIO FIX AND HOLDING DATA RECORD

NAME: BOULDER CITY VORTAC **STATE:** NV **COUNTRY:** US

LATITUDE/LONGITUDE: 355944.83N/1145148.85W **TYPE:**

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** NO CHANGE

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	BOULDER CITY	BLD	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	SE	BLD	VORTAC	150.00	330.00	R	1		6000	10000	5	9
2	SE		WP	150.00	330.00	R		5	6000	12000	6	10

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	AAO	360109.60N/1145125.70W	3989	6A
1	310	AAO	355950.90N/1143643.50W	5645	6A
2	200	AAO	355651.00N/1145654.00W	4262	4E

PRECIPITOUS TERRAIN ADDITIONS:

PAT	SPEED	ADDITION
1	310	271
1	200	138
2	200	190

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERNS.

REMARKS:
310K PATTERN EVALUATED PER ATC REQUEST.
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	HOOVER		1	KLAS	LAS VEGAS	NV (US)
DP	LAS VEGAS		1	KLAS	LAS VEGAS	NV (US)
DP	MCCARRAN		1	KLAS	LAS VEGAS	NV (US)
DP	TAKEOFF MINIMUMS			KLAS	LAS VEGAS	NV (US)
DP	BOULDER CITY			KVGT	LAS VEGAS	NV (US)
DP	WEVIC (RNAV)			KSLC	SALT LAKE CITY	UT (US)
EN ROUTE	J107					(US)
EN ROUTE	J110					(US)
EN ROUTE	J60					(US)
EN ROUTE	J60-107					(US)
EN ROUTE	J72-86					(US)
EN ROUTE	J92					(US)
EN ROUTE	V105					(US)
EN ROUTE	V21					(US)
EN ROUTE	V21-283-587					(US)
EN ROUTE	V237-514					(US)
IAP	VOR/DME RWY 21			KIGM	KINGMAN	AZ (US)
IAP	RNAV (GPS)-B		2	KHND	LAS VEGAS	NV (US)
IAP	VOR-C		1	KHND	LAS VEGAS	NV (US)
IAP	ILS OR LOC RWY 25L		1	KLAS	LAS VEGAS	NV (US)
IAP	ILS OR LOC RWY 25R		1	KLAS	LAS VEGAS	NV (US)
IAP	ILS OR LOC/DME RWY 1L		1	KLAS	LAS VEGAS	NV (US)
IAP	RVAV (GPS) RWY 1R		2	KLAS	LAS VEGAS	NV (US)
IAP	VOR RWY 25 L/R		1	KLAS	LAS VEGAS	NV (US)
IAP	VOR/DME-A		1	KLAS	LAS VEGAS	NV (US)
STAR	COYOT			KPHX	PHOENIX	AZ (US)
STAR	MAIER (RNAV)			KPHX	PHOENIX	AZ (US)
STAR	ADDEL (RNAV)		2	KHND	LAS VEGAS	NV (US)
STAR	JOMIX (RNAV)		2	KHND	LAS VEGAS	NV (US)
STAR	KNGMN (RNAV)		2	KHND	LAS VEGAS	NV (US)
STAR	NOOTN (RNAV)		2	KHND	LAS VEGAS	NV (US)
STAR	CLARR			KLAS	LAS VEGAS	NV (US)
STAR	CRESO			KLAS	LAS VEGAS	NV (US)
STAR	FUZZY			KLAS	LAS VEGAS	NV (US)
STAR	GRNPA (RNAV)		2	KLAS	LAS VEGAS	NV (US)
STAR	KADDY		1	KLAS	LAS VEGAS	NV (US)
STAR	KEPEC (RNAV)		2	KLAS	LAS VEGAS	NV (US)
STAR	LUXOR		1	KLAS	LAS VEGAS	NV (US)
STAR	SUNST (RNAV)		2	KLAS	LAS VEGAS	NV (US)
STAR	TYSSN (RNAV)		2	KLAS	LAS VEGAS	NV (US)

QUALITY CHECKED

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 12 **DATE OF REVISION:** 05/31/2012

REASON FOR REVISION:
UPDATED PAT 2 CONTROLLER.

DEVELOPED BY:	**DATE:** 01/30/2012	**OFFICE:** AJV-354	**NAME:** ADOLFO URRUTIA (AISHAT NAUZO)
APPROVED BY:	**DATE:**	**OFFICE:** AJV-354	**NAME:** DEZ SILAGYI
	SIGNATURE:		

DISTRIBUTION:
NFDC
FPO: WST
ARTCC: ZLA
ATC FACILITY: LAS/HND
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: CHIPZ **STATE:** AZ **COUNTRY:** US

LATITUDE/LONGITUDE: 355850.00N/1143630.00W **TYPE:** WP

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

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	KEPEC (RNAV)			KLAS	LAS VEGAS	NV (US)
STAR	SUNST (RNAV)			KLAS	LAS VEGAS	NV (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 3 **DATE OF REVISION:** 05/31/2012

REASON FOR REVISION:
REMOVED FAC 1.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 01/04/2012 **OFFICE:** AJV-354 **NAME:** ADOLFO URRUTIA (AISHAT NAUZO)

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: WST
ARTCC: ZLA
ATC FACILITY: LAS APP CON
OTHER:

QUALITY CHECKED 1

RADIO FIX AND HOLDING DATA RECORD

NAME: FUZZY **STATE:** NV **COUNTRY:** US

LATITUDE/LONGITUDE: 361202.07N/1155401.01W **TYPE:** WP, DME

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	BEATTY	BTY	VORTAC	H	115.00	131.00	54.52	54.52		14800	45000
2	BOULDER CITY	BLD	VORTAC	H	268.98	283.98	51.88	51.88		29000	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	NW	BTY	VORTAC	115.00	115.00	R		6	14800	26000	17	22
2	NW		WP	296.00	116.00	R		10	14800	26000	16	21

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	265	AAO	361603.00N/1154148.00W	11716	4E
2	265	AAO	361548.00N/1154212.00W	11086	4E

PRECIPITOUS TERRAIN ADDITIONS:

PAT	SPEED	ADDITION
1	265	375
2	265	375

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERNS.

REMARKS:
BOULDER CITY (FAC 2) AND BEATTY (FAC 1) USED TO ESTABLISH FIX COORDINATES
HOLDING PAT 1 CTRL OBST SA-994.74 FT.
HOLDING PAT 2 CTRL OBST SA-998.82 FT.
PRECIPITOUS TERRAIN EVAL COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	J110	2				(US)
EN ROUTE	J86	1, 2				(US)
STAR	ADDEL (RNAV)			KHND	LAS VEGAS	NV (US)
STAR	FUZZY	1	1	KLAS	LAS VEGAS	NV (US)
STAR	SUNST (RNAV)		2	KLAS	LAS VEGAS	NV (US)

REQUIRED CHARTING: STAR, CONTROLLER, EN ROUTE HIGH

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 8 **DATE OF REVISION:** 05/31/2012

REASON FOR REVISION:
ADDED REMARK, BOULDER CITY (FAC 2) AND BEATTY (FAC 1) USED TO ESTABLISH FIX COORDINATES.
UPDATED PAT 1 CONTROLLER ELEVATION.

DEVELOPED BY: **DATE:** 01/05/2012 **OFFICE:** AJV-354 **NAME:** ADOLFO URRUTIA (AISHAT NAUZO)

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

SIGNATURE:

DISTRIBUTION: **NFDC**
FPO: WST
ARTCC: ZLA
ATC FACILITY: LAS APP CON
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: KIMME **STATE:** NV **COUNTRY:** US

LATITUDE/LONGITUDE: 355943.00N/1144950.00W **TYPE:** WP

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

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	KEPEC (RNAV)			KLAS	LAS VEGAS	NV (US)
STAR	SUNST (RNAV)			KLAS	LAS VEGAS	NV (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 **DATE OF REVISION:** 05/31/2012

REASON FOR REVISION:
REMOVED FAC 1.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 01/04/2012 **OFFICE:** AJV-354 **NAME:** ADOLFO URRUTIA (AISHAT NAUZO)

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

SIGNATURE:

DISTRIBUTION: **NFDC**
FPO: WST
ARTCC: ZLA
ATC FACILITY: LAS APP CON
OTHER:

QUALITY 1 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: NIPZO **STATE:** NV **COUNTRY:** US

LATITUDE/LONGITUDE: 360106.84N/1151210.17W **TYPE:** WP

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

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	SMOKK (SPECIAL)			KLAS	LAS VEGAS	NV (US)
STAR	KEPEC (RNAV)			KLAS	LAS VEGAS	NV (US)
STAR	SUNST (RNAV)			KLAS	LAS VEGAS	NV (US)

REQUIRED CHARTING: DP, STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 4 **DATE OF REVISION:** 05/31/2012

REASON FOR REVISION:
REMOVED FAC 1.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 01/04/2012 **OFFICE:** AJV-354 **NAME:** ADOLFO URRUTIA (AISHAT NAUZO)

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: WST
ARTCC: ZLA
ATC FACILITY: LAS APP CON
OTHER:

QUALITY 1 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: POKRR **STATE:** AZ **COUNTRY:** US

LATITUDE/LONGITUDE: 360345.49N/1143553.43W **TYPE:** WP

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

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	KEPEC (RNAV)			KLAS	LAS VEGAS	NV (US)
STAR	SUNST (RNAV)			KLAS	LAS VEGAS	NV (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 **DATE OF REVISION:** 05/31/2012

REASON FOR REVISION:
FIX MOVED 2061.95 FT SOUTHEAST; COORDINATES UPDATED.
REMOVED FAC 1.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 01/04/2012 **OFFICE:** AJV-354 **NAME:** ADOLFO URRUTIA (AISHAT NAUZO)

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: WST
ARTCC: ZLA
ATC FACILITY: LAS APP CON
OTHER:

QUALITY 1 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: PRINO **STATE:** AZ **COUNTRY:** US

LATITUDE/LONGITUDE: 360423.60N/1144338.86W **TYPE:** WP, INT, DME

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	LAS VEGAS	I-RLE	LOC/DME		074.96	089.96	21.27	21.27		8000	20000
2	BOULDER CITY	BLD	VORTAC	H	039.95	054.95		8.09		8000	17500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
I-RLE	LOC/DME	R-075	22	8000	20000

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

REMARKS:
LAS VEGAS (FAC 1) AND BOULDER CITY (FAC 2) USED TO ESTABLISH FIX COORDINATES
I-RLE DME COORDINATES: 360422.53N/1150953.38W.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 25L	1, 2		KLAS	LAS VEGAS	NV (US)
STAR	KEPEC (RNAV)			KLAS	LAS VEGAS	NV (US)
STAR	SUNST (RNAV)			KLAS	LAS VEGAS	NV (US)
STAR	TYSSN (RNAV)			KLAS	LAS VEGAS	NV (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 5 **DATE OF REVISION:** 05/31/2012

REASON FOR REVISION:
ADDED REMARK, LAS VEGAS (FAC 1) AND BOULDER CITY (FAC 2) USED TO ESTABLISH FIX COORDINATES.

DEVELOPED BY: **DATE:** 01/10/2012 **OFFICE:** AJV-354 **NAME:** ADOLFO URRUTIA (AISHAT NAUZO)

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: WST
ARTCC: ZLA
ATC FACILITY: LAS ATCT/LAS APP CON
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: SUNST **STATE:** NV **COUNTRY:** US

LATITUDE/LONGITUDE: 360037.00N/1150451.00W **TYPE:** WP

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

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	SUNST (RNAV)			KLAS	LAS VEGAS	NV (US)
STAR	KEPEC (RNAV)			KLAS	LAS VEGAS	NV (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 **DATE OF REVISION:** 05/31/2012

REASON FOR REVISION:
REMOVED FAC 1.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 01/04/2012 **OFFICE:** AJV-354 **NAME:** ADOLFO URRUTIA (AISHAT NAUZO)

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: WST
ARTCC: ZLA
ATC FACILITY: LAS APP CON
OTHER:

QUALITY 1 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: TACUS **STATE:** NV **COUNTRY:** US

LATITUDE/LONGITUDE: 370516.00N/1165412.00W **TYPE:** WP

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

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	Q13					(US)
STAR	SUNST (RNAV)			KLAS	LAS VEGAS	NV (US)

REQUIRED CHARTING: STAR, CONTROLLER, EN ROUTE HIGH

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 **DATE OF REVISION:** 05/31/2012

REASON FOR REVISION:
REMOVED FAC 1.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 01/04/2012 **OFFICE:** AJV-354 **NAME:** ADOLFO URRUTIA (AISHAT NAUZO)

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: WST
ARTCC: ZLA
ATC FACILITY: LAS APP CON
OTHER:

QUALITY CHECKED 1

RADIO FIX AND HOLDING DATA RECORD

NAME: TRAGR **STATE:** NV **COUNTRY:** US

LATITUDE/LONGITUDE: 360657.56N/1153813.94W **TYPE:** WP

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

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	SUNST (RNAV)			KLAS	LAS VEGAS	NV (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 **DATE OF REVISION:** 05/31/2012

REASON FOR REVISION:
REMOVED FAC 1.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 01/04/2012 **OFFICE:** AJV-354 **NAME:** ADOLFO URRUTIA (AISHAT NAUZO)

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: WST
ARTCC: ZLA
ATC FACILITY: LAS APP CON
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: IPUMY **STATE:** NV **COUNTRY:** US

LATITUDE/LONGITUDE: 360151.82N/1152231.18W **TYPE:** WP, DME

INFO ONLY

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	BOULDER CITY	BLD	VORTAC	H	260.00	275.00	25.00	25.00		11000	17500

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	ADDEL (RNAV)			KHND	LAS VEGAS	NV (US)
STAR	FUZZY	1		KLAS	LAS VEGAS	NV (US)
STAR	KEPEC (RNAV)			KLAS	LAS VEGAS	NV (US)
STAR	SUNST (RNAV)			KLAS	LAS VEGAS	NV (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 3 **DATE OF REVISION:** 06/30/2011

REASON FOR REVISION:
ADDED DIST FROM FAC DATA FOR FAC 1.
DELETED KEPEC FROM FAC 2.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 01/28/2011 **OFFICE:** AVN-130 **NAME:** MARK ADAMS

APPROVED BY: **DATE:** 04/07/2011 **OFFICE:** AVN-130 **NAME:** DEZ SILAGYI

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: WST
ARTCC: ZLA
ATC FACILITY: LAS APP CON
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

INFO ONLY

NAME: MYCAL **STATE:** NV **COUNTRY:** US

LATITUDE/LONGITUDE: 362736.65N/1161551.34W **TYPE:** WP, DME

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	BEATTY	BTY	VORTAC	H	115.00	131.00	31.00	31.00		14800	45000

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	ADDEL (RNAV)			KHND	LAS VEGAS	NV (US)
STAR	FUZZY	1		KLAS	LAS VEGAS	NV (US)
STAR	SUNST (RNAV)			KLAS	LAS VEGAS	NV (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1 **DATE OF REVISION:** 06/30/2011

REASON FOR REVISION:
REPLACED HISTORY REVISION WITH ACTIVE REVISION OF BTY VORTAC FOR FAC 1.
DELETED FUZZY FROM FAC 2.

DEVELOPED BY: **DATE:** 01/27/2011 **OFFICE:** AVN-130 **NAME:** MARK ADAMS

APPROVED BY: **DATE:** 04/07/2011 **OFFICE:** AVN-130 **NAME:** DEZ SILAGYI

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: WST
ARTCC: ZLA
ATC FACILITY: LAS APP CON
OTHER:

INFO ONLY

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: TUMBE **STATE:** NV **COUNTRY:** US

LATITUDE/LONGITUDE: 364820.00N/1164003.00W **TYPE:** WP

INFO ONLY

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

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	Q13					(US)
STAR	ADDEL (RNAV)			KHND	LAS VEGAS	NV (US)
STAR	SUNST (RNAV)			KLAS	LAS VEGAS	NV (US)

REQUIRED CHARTING: STAR, CONTROLLER, EN ROUTE HIGH

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 **DATE OF REVISION:** 06/30/2011

REASON FOR REVISION:
DELETED MYCAL FROM FAC 1.
UPDATE FIX USE.

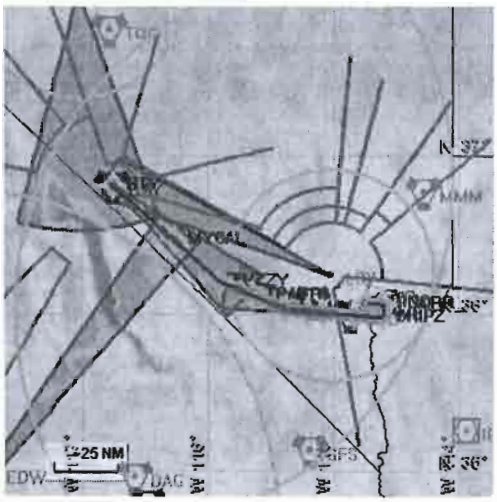
DEVELOPED BY: **DATE:** 01/27/2011 **OFFICE:** AVN-130 **NAME:** MARK ADAMS

APPROVED BY: **DATE:** 04/07/2011 **OFFICE:** AVN-130 **NAME:** DEZ SILAGYI

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: WST
ARTCC: ZLA
ATC FACILITY: LAS APP CON
OTHER:

QUALITY CHECKED



Name:	bachmanw
Project Name:	
Software:	RNAV-Pro™
Version:	2.35
Date/Time:	10/21/2011 9:08:33 AM
Input File:	KLAS SUNST3 STAR BT...
Databases:	AVNIS Date: 08/26/2011
	NFD Date: 07/02/2009
	DTED® (Lvl 1) Date: 1994-1996

Results Summary:

Flyability	✔
DME/DME	✔
Radars	✔
Comms	?
TERPS	?

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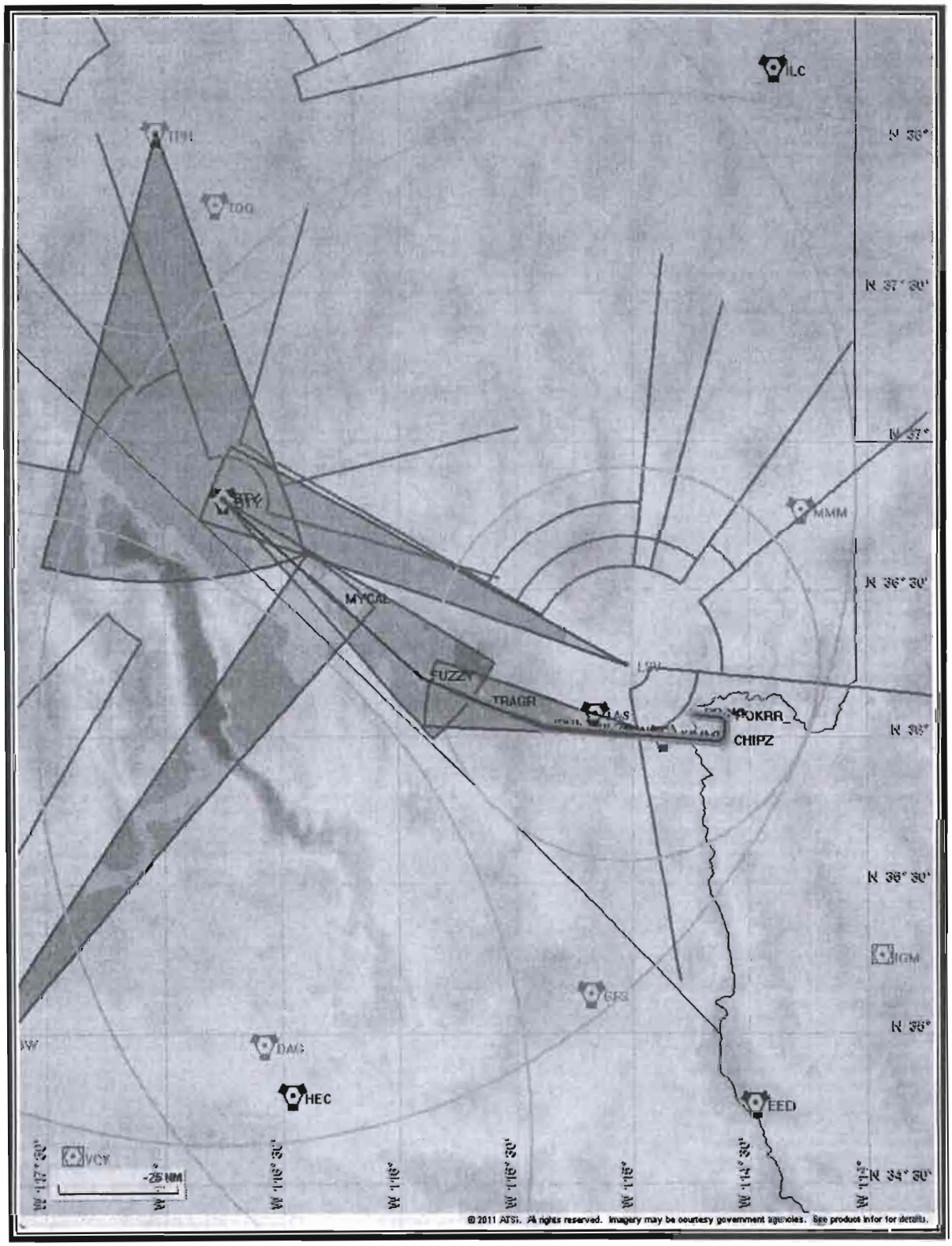
ILC
TOG
BTY
MMM
MYCAL
FUZZY
TRAGR
LAS
POKRR
CHIPZ
IGM
GRS
DAG
HEC
EED
VCV
N 36°
N 37° 30'
N 37°
N 36° 30'
N 36°
N 35° 30'
N 35°
N 34° 30'
25 NM
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Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
BTY	WP	N 36° 48' 2.11" W 116° 44' 51.51"	21000.0	Step	280.0	Fly By	TF
MYCAL	WP	N 36° 27' 36.65" W 116° 15' 51.34"	21000.0	Step	280.0	Fly By	TF
FUZZY	WP	N 36° 12' 2.07" W 115° 54' 1.01"	14800.0	Step	280.0	Fly By	TF
TRAGR	WP	N 36° 6' 57.56" W 115° 38' 13.94"	11800.0	Step	250.0	Fly By	TF
IPUMY	WP	N 36° 1' 51.82" W 115° 22' 31.18"	11000.0	Step	230.0	Fly By	TF
NIPZO	WP	N 36° 1' 6.84" W 115° 12' 10.17"	8000.0	Step	230.0	Fly By	TF
SUNST	WP	N 36° 0' 37.00" W 115° 4' 51.00"	8000.0	Step	210.0	Fly By	TF
KIMME	WP	N 35° 59' 43.00" W 114° 49' 50.00"	8000.0	Step	210.0	Fly By	TF
CHIPZ	WP	N 35° 58' 50.00" W 114° 36' 30.00"	8000.0	Step	170.0	Fly By	TF
POKRR_	WP	N 36° 3' 45.49" W 114° 35' 53.43"	8000.0	Step	170.0	Fly By	TF
PRINO	WP	N 36° 4' 23.60" W 114° 43' 38.86"	8000.0	Step	170.0	Fly Over	TF

Flyability	Return To Summary
Settings:	**Flight Type:** Arrival/Approach **Aircraft Category:** Cat D **Climb Gradient:** *None assigned* **Ground Speeds:** Table: **200.0 Kts** up to **29000.0 Ft.** **280.0 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:

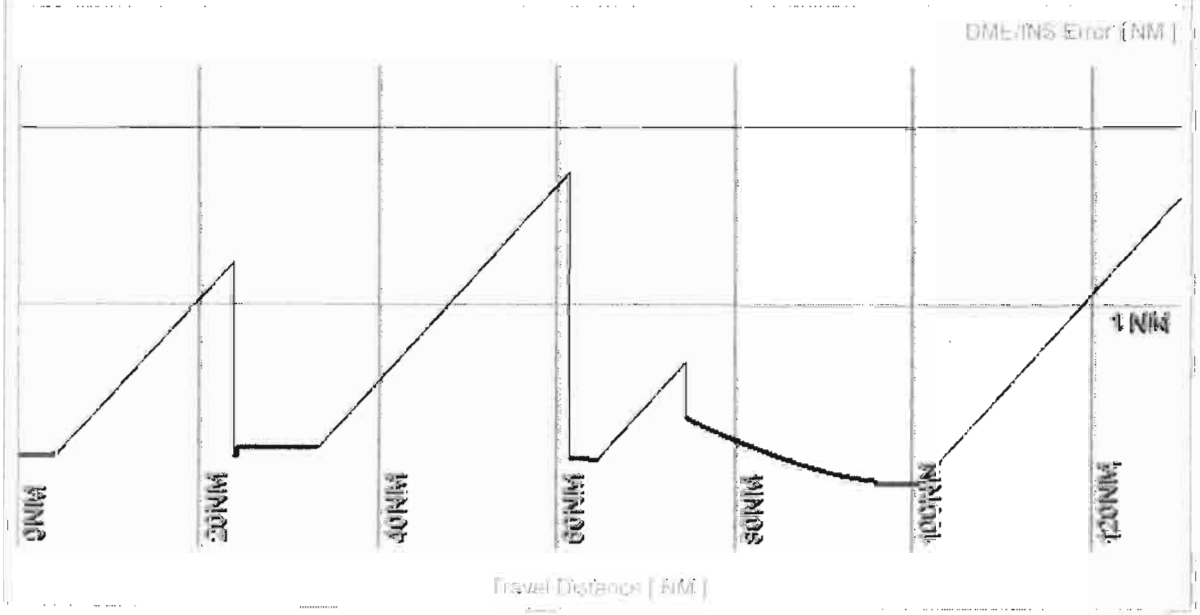
RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 1): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.558 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: VOR/DME , 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

Total Number of DMEs Used: 6

Maximum DME Error: 1.544 NM.

3 Critical DMEs were found.

Available DMEs: LSV, TPH, OAL, BTY, BLD, HEC, PMD, LAS



DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	LSV	N 36° 14' 40.77" W 115° 1' 30.27"	L + ESV	User	YES	**4.280**	Enabled	25.8 %	25.7 %
2	TPH	N 38° 1' 50.36" W 117° 2' 0.67"	L + ESV	User	NO	1.544	Enabled	3.0 %	2.9 %
3	BLD	N 35° 59' 44.83" W 114° 51' 48.85"	H + ESV	User	NO	1.614	Enabled	20.7 %	20.7 %
4	HEC	N 34° 47' 49.26" W 116° 27' 46.52"	H	Database	NO	1.544	Enabled	0.3 %	0.3 %
5	BTY	N 36° 48' 2.11" W 116° 44' 51.51"	H + ESV	User	YES	**2.091**	Enabled	9.3 %	9.4 %
6	PMD	N 34° 37' 53.03" W 118° 3' 49.76"	H + ESV	User	YES	**Drift Time**	Enabled	7.0 %	7.0 %

Flight Check DME Selection

Distance [NM]	Selected DMEs				Alternate
0.0	BTY	TPH	LSV	OAL	
20.8	BTY	HEC	PMD	BLD	
31.0	BTY	LAS	PMD	BLD	
54.0	BTY	LAS	LSV	BLD	
68.3	BLD	LAS	LSV		
81.5	BLD	LAS	LSV		
90.4	BLD	LAS	LSV		
96.3	BLD	LAS	LSV		
108.6	BLD	LAS			
117.9	BLD	LAS			
122.3	BLD	LAS			

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 36° 45' 30.84" W 116° 41' 15.23"	N 36° 32' 33.66" W 116° 22' 50.68"	19.7
	VOR: BTY	Available from N 36° 45' 30.84" W 116° 41' 15.23" to N 36° 32' 33.66" W 116° 22' 50.68"	
2	N 36° 26' 19.35" W 116° 14' 2.50"	N 36° 9' 36.03" W 115° 46' 26.15"	28.2
	VOR: BTY	Available from N 36° 26' 19.35" W 116° 14' 2.50" to N 36° 21' 41.64" W 116° 7' 31.81"	
	VOR: LAS	Available from N 36° 14' 31.01" W 115° 57' 28.81" to N 36° 9' 36.03" W 115° 46' 26.15"	

DME/DME (Continued.)

Return To Summary

Inertial Drift Segments (Continued.)

#	Start Location	End Location	Length [NM]
3	N 36° 8' 27.14" W 115° 42' 51.88"	N 36° 4' 47.47" W 115° 31' 31.61"	9.9
	VOR: LAS	Available from N 36° 8' 27.14" W 115° 42' 51.88" to N 36° 4' 47.47" W 115° 31' 31.61"	
	VOR: BLD	Available from N 36° 7' 35.39" W 115° 40' 11.25" to N 36° 4' 47.47" W 115° 31' 31.61"	
4	N 36° 0' 18.07" W 114° 59' 33.34"	N 36° 4' 23.48" W 114° 43' 37.11"	28.8
	VOR: BLD	Available from N 36° 0' 18.07" W 114° 59' 33.34" to N 36° 4' 23.48" W 114° 43' 37.11"	
	VOR: LAS	Available from N 36° 0' 18.07" W 114° 59' 33.34" to N 36° 4' 23.48" W 114° 43' 37.11"	

DME/DME (Continued.)

Return To Summary

User DMEs

#	Name	Lat/Lon	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	LSV	N 36° 14' 40.77" W 115° 1' 30.27"	L	1863.6	135.5	LSV	Used
		Restriction:	Bearing [True]: 35.0° to 50.0° Bearing [Mag]: 20.0° to 35.0°		Distance: Beyond 30.0 NM Altitude: Below 8000.0 Ft.		
		Restriction:	Bearing [True]: 50.0° to 95.0° Bearing [Mag]: 35.0° to 80.0°		Distance: Beyond 20.0 NM Altitude: Below 99999.0 Ft.		
		Restriction:	Bearing [True]: 95.0° to 170.0° Bearing [Mag]: 80.0° to 155.0°		Distance: Beyond 5.0 NM Altitude: Below 10000.0 Ft.		
		Restriction:	Bearing [True]: 95.0° to 170.0° Bearing [Mag]: 80.0° to 155.0°		Distance: Beyond 15.0 NM Altitude: Below 99999.0 Ft.		
		Restriction:	Bearing [True]: 300.0° to 5.0° Bearing [Mag]: 285.0° to 350.0°		Distance: Beyond 20.0 NM Altitude: Below 11000.0 Ft.		
		Restriction:	Bearing [True]: 300.0° to 5.0° Bearing [Mag]: 285.0° to 350.0°		Distance: Beyond 26.0 NM Altitude: Below 15000.0 Ft.		
		Restriction:	Bearing [True]: 300.0° to 5.0° Bearing [Mag]: 285.0° to 350.0°		Distance: Beyond 33.0 NM Altitude: Below 99999.0 Ft.		
		Restriction:	Bearing [True]: 5.0° to 15.0° Bearing [Mag]: 350.0° to 0.0°		Distance: Beyond 20.0 NM Altitude: Below 9000.0 Ft.		
		Restriction:	Bearing [True]: 5.0° to 15.0° Bearing [Mag]: 350.0° to 0.0°		Distance: Beyond 26.0 NM Altitude: Below 15000.0 Ft.		
		Restriction:	Bearing [True]: 15.0° to 35.0° Bearing [Mag]: 0.0° to 20.0°		Distance: Beyond 20.0 NM Altitude: Below 8000.0 Ft.		
		Restriction:	Bearing [True]: 15.0° to 35.0° Bearing [Mag]: 0.0° to 20.0°		Distance: Beyond 26.0 NM Altitude: Below 12000.0 Ft.		
		ESV:	Bearing [True]: 289.0° to 299.0° Bearing [Mag]: 274.0° to 284.0°		Arc Distance: Out to 93.0 NM Altitude: 20000.0 to 45000.0 Ft.		
2	TPH	N 38° 1' 50.36" W 117° 2' 0.67"	L	5330.0	117.20	TPH	Used
		Restriction:	Bearing [True]: 32.0° to 67.0° Bearing [Mag]: 15.0° to 50.0°		Distance: Beyond 35.0 NM Altitude: Below 10800.0 Ft.		
		Restriction:	Bearing [True]: 67.0° to 77.0° Bearing [Mag]: 50.0° to 60.0°		Distance: Beyond 30.0 NM Altitude: Below 9500.0 Ft.		
		Restriction:	Bearing [True]: 257.0° to 277.0° Bearing [Mag]: 240.0° to 260.0°		Distance: Beyond 30.0 NM Altitude: Below 10600.0 Ft.		
		Restriction:	Bearing [True]: 287.0° to 332.0° Bearing [Mag]: 270.0° to 315.0°		Distance: Beyond 20.0 NM Altitude: Below 8600.0 Ft.		
		Restriction:	Bearing [True]: 17.0° to 32.0° Bearing [Mag]: 0.0° to 15.0°		Distance: Beyond 30.0 NM Altitude: Below 10800.0 Ft.		
		ESV:	Bearing [True]: 160.0° to 195.0° Bearing [Mag]: 143.0° to 178.0°		Arc Distance: Out to 90.0 NM Altitude: 17000.0 to 45000.0 Ft.		

DME/DME (Continued.)

Return To Summary

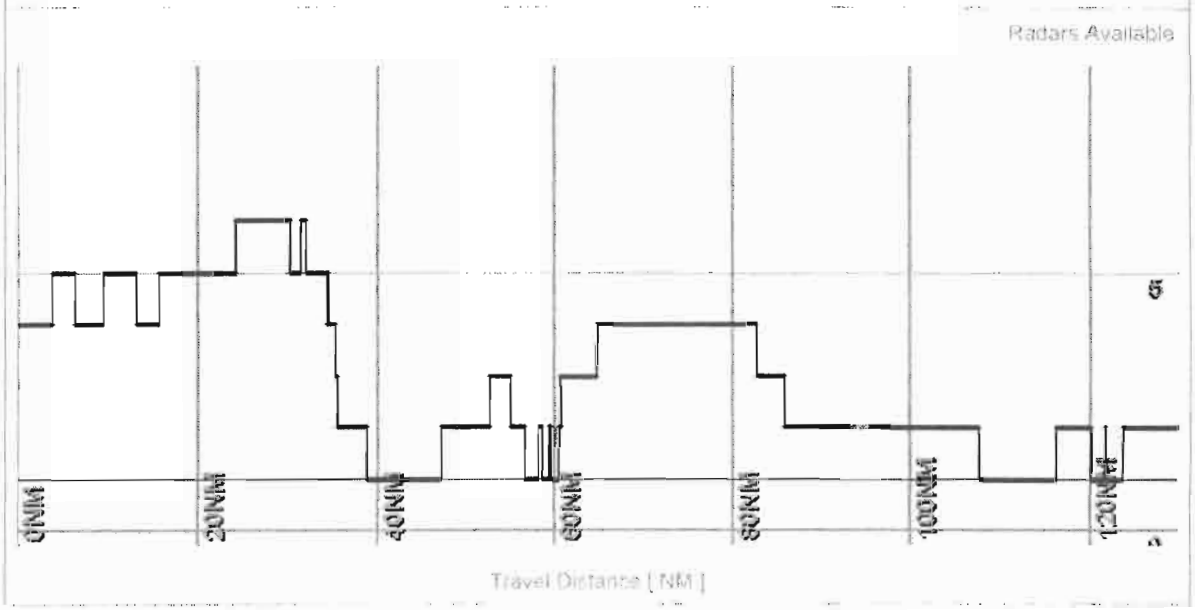
User DMEs (Continued.)

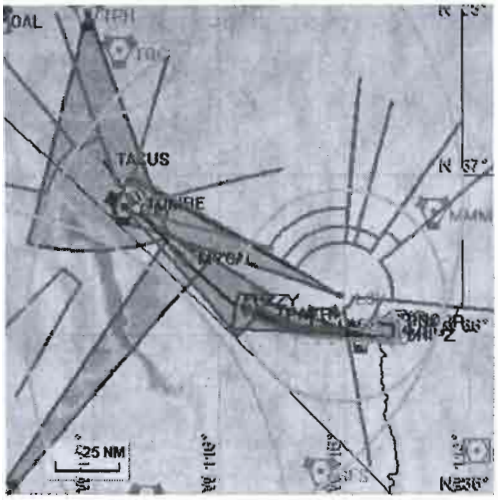
#	Name	Lat/Lon	Range	Elevation [Ft]	Frequency	Replaces:	Status
3	BTY	N 36° 48' 2.11" W 116° 44' 51.51"	H	2930.0	114.70	BTY	Used
	Restriction:	Bearing [True]: 211.0° to 226.0° Bearing [Mag]: 195.0° to 210.0°			Distance: Beyond 33.0 NM Altitude: Below 10500.0 Ft.		
	Restriction:	Bearing [True]: 281.0° to 321.0° Bearing [Mag]: 265.0° to 305.0°			Distance: Beyond 30.0 NM Altitude: Below 10200.0 Ft.		
	Restriction:	Bearing [True]: 321.0° to 341.0° Bearing [Mag]: 305.0° to 325.0°			Distance: Beyond 28.0 NM Altitude: Below 9000.0 Ft.		
	Restriction:	Bearing [True]: 341.0° to 105.0° Bearing [Mag]: 325.0° to 89.0°			Distance: Beyond 9.0 NM Altitude: Below 99999.0 Ft.		
	Restriction:	Bearing [True]: 16.0° to 76.0° Bearing [Mag]: 0.0° to 60.0°			Distance: Beyond 12.0 NM Altitude: Below 99999.0 Ft.		
	ESV:	Bearing [True]: 120.0° to 138.0° Bearing [Mag]: 104.0° to 122.0°			Arc Distance: Out to 65.0 NM Altitude: 11700.0 to 17500.0 Ft.		
4	BLD	N 35° 59' 44.83" W 114° 51' 48.85"	H	3650.0	116.70	BLD	Used
	ESV:	Bearing [True]: 273.0° to 289.0° Bearing [Mag]: 269.0° to 285.0°			Arc Distance: Out to 50.0 NM Altitude: 11700.0 to 18200.0 Ft.		
5	PMD	N 34° 37' 53.03" W 118° 3' 49.76"	H	2498.0	114.50	PMD	Used
	Restriction:	Bearing [True]: 125.0° to 160.0° Bearing [Mag]: 110.0° to 145.0°			Distance: Beyond 20.0 NM Altitude: Below 15500.0 Ft.		
	Restriction:	Bearing [True]: 135.0° to 160.0° Bearing [Mag]: 120.0° to 145.0°			Distance: Beyond 20.0 NM Altitude: Below 15500.0 Ft.		
	Restriction:	Bearing [True]: 160.0° to 165.0° Bearing [Mag]: 145.0° to 150.0°			Distance: Beyond 20.0 NM Altitude: Below 14500.0 Ft.		
	Restriction:	Bearing [True]: 160.0° to 250.0° Bearing [Mag]: 145.0° to 235.0°			Distance: Beyond 20.0 NM Altitude: Below 14500.0 Ft.		
	Restriction:	Bearing [True]: 0.0° to 10.0° Bearing [Mag]: 345.0° to 355.0°			Distance: Beyond 35.0 NM Altitude: Below 99999.0 Ft.		
	ESV:	Bearing [True]: 34.0° to 41.0° Bearing [Mag]: 19.0° to 26.0°			Arc Distance: Out to 145.0 NM Altitude: 20000.0 to 44000.0 Ft.		

Radar Analysis

Return To Summary

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





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Project Name:	
Software:	RNAV-Pro™
Version:	2.35
Date/Time:	10/21/2011 8:59:46 AM
Input File:	KLAS SUNST3 STAR TAC...
Databases:	AVNIS Date: 08/26/2011
	NFD Date: 07/02/2009
	DTED® (Lvl 1) Date: 1994-1996

Results Summary:

Flyability	✔
DME/DME	✔
Radars	✔
Comms	?
TERPS	?

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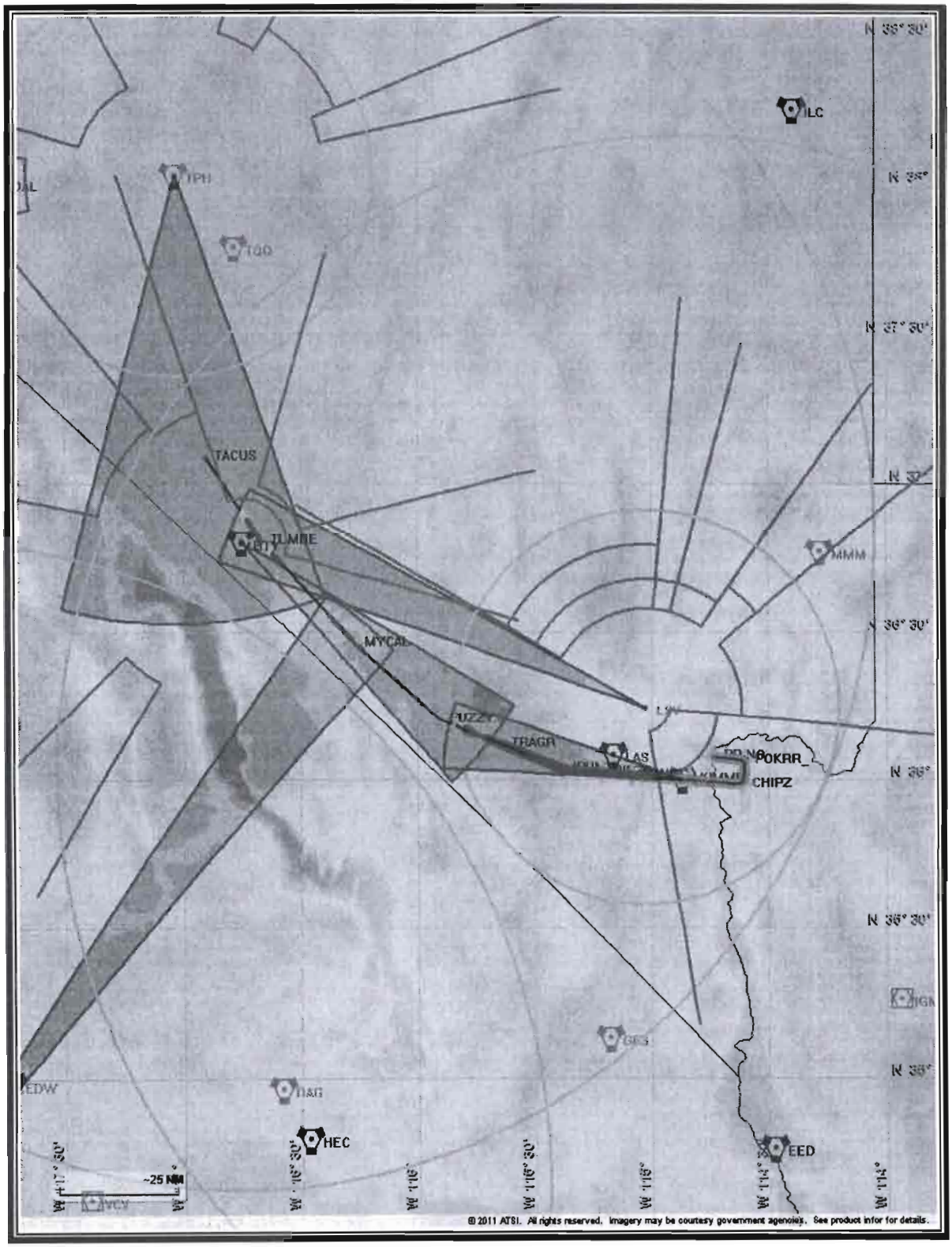
ILC
TQO
TACUS
TLMBE
MMM
MYCAL
TRAGR
LAS
POKRR
CHIPZ
HEC
EED
~25 NM
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Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
TACUS	WP	N 37° 5' 16.00" W 116° 54' 12.00"	21000.0	Step	280.0	Fly By	TF
TUMBE	WP	N 36° 48' 20.00" W 116° 40' 3.00"	21000.0	Step	280.0	Fly By	TF
MYCAL	WP	N 36° 27' 36.65" W 116° 15' 51.34"	21000.0	Step	280.0	Fly By	TF
FUZZY	WP	N 36° 12' 2.07" W 115° 54' 1.01"	14800.0	Step	250.0	Fly By	TF
TRAGR	WP	N 36° 6' 57.56" W 115° 38' 13.94"	11800.0	Step	250.0	Fly By	TF
IPUMY	WP	N 36° 1' 51.82" W 115° 22' 31.18"	11000.0	Step	230.0	Fly By	TF
NIPZO	WP	N 36° 1' 6.84" W 115° 12' 10.17"	8000.0	Step	230.0	Fly By	TF
SUNST	WP	N 36° 0' 37.00" W 115° 4' 51.00"	8000.0	Step	210.0	Fly By	TF
KIMME	WP	N 35° 59' 43.00" W 114° 49' 50.00"	8000.0	Step	210.0	Fly By	TF
CHIPZ	WP	N 35° 58' 50.00" W 114° 36' 30.00"	8000.0	Step	170.0	Fly By	TF
POKRR_	WP	N 36° 3' 45.49" W 114° 35' 53.43"	8000.0	Step	170.0	Fly By	TF
PRINO	WP	N 36° 4' 23.60" W 114° 43' 38.86"	8000.0	Step	170.0	Fly Over	TF

Flyability

Return To Summary

Settings:

Flight Type: Arrival/Approach
Aircraft Category: Cat D
Climb Gradient: *None assigned*
Ground Speeds:

Table:

200.0 Kts up to **29000.0 Ft.**
280.0 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:

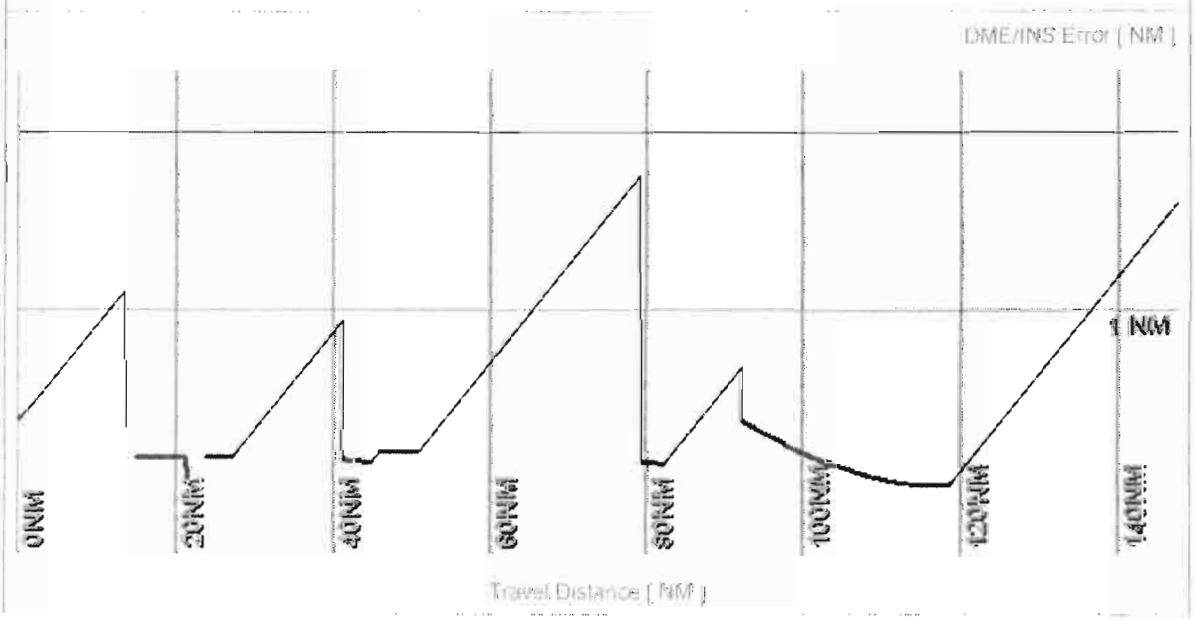
RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 1): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.558 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: VOR/DME , 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

Total Number of DMEs Used: 7

Maximum DME Error: 1.553 NM.

3 Critical DMEs were found.

Available DMEs: TPH, OAL, BTY, LSV, BLD, HEC, PMD, LAS



DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	TPH	N 38° 1' 50.36" W 117° 2' 0.67"	L + ESV	User	NO	1.553	Enabled	8.3 %	8.3 %
2	OAL	N 38° 0' 11.75" W 117° 46' 13.66"	H	Database	NO	1.553	Enabled	1.3 %	1.3 %
3	BTY	N 36° 48' 2.11" W 116° 44' 51.51"	H + ESV	User	YES	**2.098**	Enabled	8.1 %	8.1 %
4	LSV	N 36° 14' 40.77" W 115° 1' 30.27"	L + ESV	User	YES	**4.286**	Enabled	26.6 %	26.6 %
5	BLD	N 35° 59' 44.83" W 114° 51' 48.85"	H + ESV	User	NO	1.614	Enabled	20.4 %	20.4 %
6	HEC	N 34° 47' 49.26" W 116° 27' 46.52"	H	Database	NO	1.553	Enabled	2.4 %	2.4 %
7	PMD	N 34° 37' 53.03" W 118° 3' 49.76"	H + ESV	User	YES	**1.753**	Enabled	3.4 %	3.4 %

Flight Check DME Selection

Distance [NM]	Selected DMEs				Alternate
0.0	TPH	OAL	BTY	LSV	
20.0	TPH	OAL	BTY	LSV	
32.5	BLD	HEC	BTY	PMD	
48.5	BLD	LAS	BTY	PMD	
71.8	BLD	LAS	BTY	LSV	
86.1	BLD	LAS	LSV		
99.3	BLD	LAS	LSV		
108.2	BLD	LAS	LSV		
114.1	BLD	LAS	LSV		
126.3	BLD	LAS			
135.7	BLD	LAS			
140.1	BLD	LAS			

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 37° 4' 59.25" W 116° 53' 57.94"	N 36° 54' 13.60" W 116° 44' 57.55"	12.9
	VOR: BTY	Available from N 37° 4' 59.25" W 116° 53' 57.94" to N 36° 54' 13.60" W 116° 44' 57.55"	
2	N 36° 52' 50.41" W 116° 43' 48.16"	N 36° 52' 50.41" W 116° 43' 48.16"	0.0
	VOR: BTY	Available from N 36° 52' 50.41" W 116° 43' 48.16" to N 36° 52' 50.41" W 116° 43' 48.16"	

DME/DME (Continued.)

Return To Summary

Inertial Drift Segments (Continued.)

#	Start Location	End Location	Length [NM]
3	N 36° 43' 32.05" W 116° 34' 25.61"	N 36° 33' 22.13" W 116° 22' 32.89"	13.9
	VOR: BTY	Available from N 36° 43' 32.05" W 116° 34' 25.61" to N 36° 33' 22.13" W 116° 22' 32.89"	
4	N 36° 30' 43.96" W 116° 19' 28.86"	N 36° 30' 0.15" W 116° 18' 37.93"	1.0
	VOR: BTY	Available from N 36° 30' 43.96" W 116° 19' 28.86" to N 36° 30' 0.15" W 116° 18' 37.93"	
5	N 36° 26' 25.68" W 116° 14' 12.12"	N 36° 9' 34.84" W 115° 46' 22.42"	28.4
	VOR: BTY	Available from N 36° 26' 25.68" W 116° 14' 12.12" to N 36° 21' 41.45" W 116° 7' 32.01"	
	VOR: LAS	Available from N 36° 14' 31.01" W 115° 57' 28.94" to N 36° 9' 34.84" W 115° 46' 22.42"	
6	N 36° 8' 27.17" W 115° 42' 51.98"	N 36° 4' 47.47" W 115° 31' 31.62"	9.9
	VOR: LAS	Available from N 36° 8' 27.17" W 115° 42' 51.98" to N 36° 4' 47.47" W 115° 31' 31.62"	
	VOR: BLD	Available from N 36° 7' 35.42" W 115° 40' 11.35" to N 36° 4' 47.47" W 115° 31' 31.62"	
7	N 36° 0' 18.08" W 114° 59' 33.34"	N 36° 4' 23.48" W 114° 43' 37.11"	28.8
	VOR: BLD	Available from N 36° 0' 18.08" W 114° 59' 33.34" to N 36° 4' 23.48" W 114° 43' 37.11"	
	VOR: LAS	Available from N 36° 0' 18.08" W 114° 59' 33.34" to N 36° 4' 23.48" W 114° 43' 37.11"	

DME/DME (Continued.)

Return To Summary

User DMEs

#	Name	Lat/Lon	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	LSV	N 36° 14' 40.77" W 115° 1' 30.27"	L	1863.6	135.5	LSV	Used
		Restriction:	Bearing [True]: 35.0° to 50.0° Bearing [Mag]: 20.0° to 35.0°		Distance: Beyond 30.0 NM Altitude: Below 8000.0 Ft.		
		Restriction:	Bearing [True]: 50.0° to 95.0° Bearing [Mag]: 35.0° to 80.0°		Distance: Beyond 20.0 NM Altitude: Below 99999.0 Ft.		
		Restriction:	Bearing [True]: 95.0° to 170.0° Bearing [Mag]: 80.0° to 155.0°		Distance: Beyond 5.0 NM Altitude: Below 10000.0 Ft.		
		Restriction:	Bearing [True]: 95.0° to 170.0° Bearing [Mag]: 80.0° to 155.0°		Distance: Beyond 15.0 NM Altitude: Below 99999.0 Ft.		
		Restriction:	Bearing [True]: 300.0° to 5.0° Bearing [Mag]: 285.0° to 350.0°		Distance: Beyond 20.0 NM Altitude: Below 11000.0 Ft.		
		Restriction:	Bearing [True]: 300.0° to 5.0° Bearing [Mag]: 285.0° to 350.0°		Distance: Beyond 26.0 NM Altitude: Below 15000.0 Ft.		
		Restriction:	Bearing [True]: 300.0° to 5.0° Bearing [Mag]: 285.0° to 350.0°		Distance: Beyond 33.0 NM Altitude: Below 99999.0 Ft.		
		Restriction:	Bearing [True]: 5.0° to 15.0° Bearing [Mag]: 350.0° to 0.0°		Distance: Beyond 20.0 NM Altitude: Below 9000.0 Ft.		
		Restriction:	Bearing [True]: 5.0° to 15.0° Bearing [Mag]: 350.0° to 0.0°		Distance: Beyond 26.0 NM Altitude: Below 15000.0 Ft.		
		Restriction:	Bearing [True]: 15.0° to 35.0° Bearing [Mag]: 0.0° to 20.0°		Distance: Beyond 20.0 NM Altitude: Below 8000.0 Ft.		
		Restriction:	Bearing [True]: 15.0° to 35.0° Bearing [Mag]: 0.0° to 20.0°		Distance: Beyond 26.0 NM Altitude: Below 12000.0 Ft.		
		ESV:	Bearing [True]: 289.0° to 299.0° Bearing [Mag]: 274.0° to 284.0°		Arc Distance: Out to 93.0 NM Altitude: 20000.0 to 45000.0 Ft.		
2	TPH	N 38° 1' 50.36" W 117° 2' 0.67"	L	5330.0	117.20	TPH	Used
		Restriction:	Bearing [True]: 32.0° to 67.0° Bearing [Mag]: 15.0° to 50.0°		Distance: Beyond 35.0 NM Altitude: Below 10800.0 Ft.		
		Restriction:	Bearing [True]: 67.0° to 77.0° Bearing [Mag]: 50.0° to 60.0°		Distance: Beyond 30.0 NM Altitude: Below 9500.0 Ft.		
		Restriction:	Bearing [True]: 257.0° to 277.0° Bearing [Mag]: 240.0° to 260.0°		Distance: Beyond 30.0 NM Altitude: Below 10600.0 Ft.		
		Restriction:	Bearing [True]: 287.0° to 332.0° Bearing [Mag]: 270.0° to 315.0°		Distance: Beyond 20.0 NM Altitude: Below 8600.0 Ft.		
		Restriction:	Bearing [True]: 17.0° to 32.0° Bearing [Mag]: 0.0° to 15.0°		Distance: Beyond 30.0 NM Altitude: Below 10800.0 Ft.		
		ESV:	Bearing [True]: 160.0° to 195.0° Bearing [Mag]: 143.0° to 178.0°		Arc Distance: Out to 90.0 NM Altitude: 17000.0 to 45000.0 Ft.		

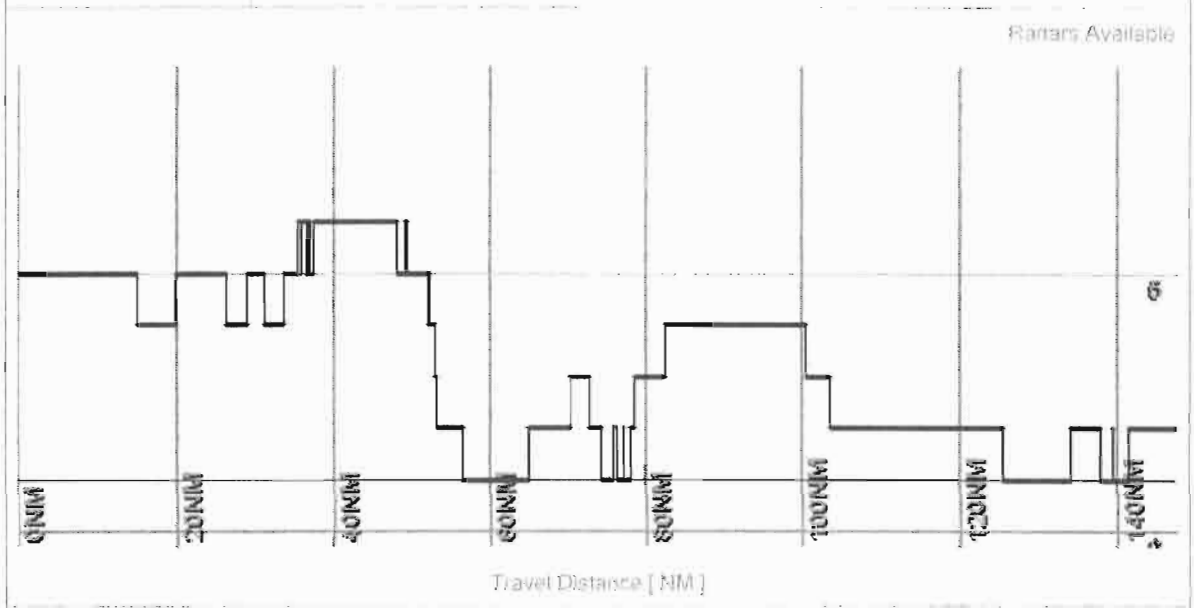
DME/DME (Continued.)

Return To Summary

User DMEs (Continued.)

#	Name	Lat/Lon	Range	Elevation [Ft]	Frequency	Replaces:	Status
3	BTY	N 36° 48' 2.11" W 116° 44' 51.51"	H	2930.0	114.70	BTY	Used
		Restriction:	Bearing [True]: 211.0° to 226.0° Bearing [Mag]: 195.0° to 210.0°		Distance: Beyond 33.0 NM Altitude: Below 10500.0 Ft.		
		Restriction:	Bearing [True]: 281.0° to 321.0° Bearing [Mag]: 265.0° to 305.0°		Distance: Beyond 30.0 NM Altitude: Below 10200.0 Ft.		
		Restriction:	Bearing [True]: 321.0° to 341.0° Bearing [Mag]: 305.0° to 325.0°		Distance: Beyond 28.0 NM Altitude: Below 9000.0 Ft.		
		Restriction:	Bearing [True]: 341.0° to 105.0° Bearing [Mag]: 325.0° to 89.0°		Distance: Beyond 9.0 NM Altitude: Below 99999.0 Ft.		
		Restriction:	Bearing [True]: 16.0° to 76.0° Bearing [Mag]: 0.0° to 60.0°		Distance: Beyond 12.0 NM Altitude: Below 99999.0 Ft.		
		ESV:	Bearing [True]: 120.0° to 138.0° Bearing [Mag]: 104.0° to 122.0°		Arc Distance: Out to 65.0 NM Altitude: 11700.0 to 17500.0 Ft.		
4	BLD	N 35° 59' 44.83" W 114° 51' 48.85"	H	3650.0	116.70	BLD	Used
		ESV:	Bearing [True]: 273.0° to 289.0° Bearing [Mag]: 269.0° to 285.0°		Arc Distance: Out to 50.0 NM Altitude: 11700.0 to 18200.0 Ft.		
5	PMD	N 34° 37' 53.03" W 118° 3' 49.76"	H	2498.0	114.50	PMD	Used
		Restriction:	Bearing [True]: 125.0° to 160.0° Bearing [Mag]: 110.0° to 145.0°		Distance: Beyond 20.0 NM Altitude: Below 15500.0 Ft.		
		Restriction:	Bearing [True]: 135.0° to 160.0° Bearing [Mag]: 120.0° to 145.0°		Distance: Beyond 20.0 NM Altitude: Below 15500.0 Ft.		
		Restriction:	Bearing [True]: 160.0° to 165.0° Bearing [Mag]: 145.0° to 150.0°		Distance: Beyond 20.0 NM Altitude: Below 14500.0 Ft.		
		Restriction:	Bearing [True]: 160.0° to 250.0° Bearing [Mag]: 145.0° to 235.0°		Distance: Beyond 20.0 NM Altitude: Below 14500.0 Ft.		
		Restriction:	Bearing [True]: 0.0° to 10.0° Bearing [Mag]: 345.0° to 355.0°		Distance: Beyond 35.0 NM Altitude: Below 99999.0 Ft.		
		ESV:	Bearing [True]: 34.0° to 41.0° Bearing [Mag]: 19.0° to 26.0°		Arc Distance: Out to 145.0 NM Altitude: 20000.0 to 44000.0 Ft.		

Radar Analysis

Return To Summary

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