

Flight Procedures Cover Page	Task Action: FLIGHT CHECK	Task Type: IAP	Estimated Chart Date: 02/25/2021	APWS Task ID: 921112EDBC004D5089039D3DD0593533	APWS Project ID: 7C7CFC4DA5704F6B9992E7C5A1067782
Procedure: RNAV (RNP) Z RWY 19R ORIG		Enroute: NO	Specialist: Barnes, Kellie		Agreement Number:
Airport ID: KLAS			Airport City: LAS VEGAS		State: NV
Facility ID:	Facility Type:	Flight Inspection Remark Type: New FC Slot			
<p>Procedure Comments: ORIGINAL PROCEDURE</p> <p>ACTIVE DATA USED FOR KLAS</p> <p>WAIVER REQUEST FOR FROP TO DA DISTANCE LESS THAN 0.5 NM.</p> <p>APPROVAL REQUEST TO USE PRECIPITOUS POINT VALUE ASSESSMENT INSTEAD OF TARGETS PRECIPITOUS TERRAIN VALUE FOR MISSED APPROACH HOLDING PATTERN.</p> <p>CONTACT ALLAN WILL 405-954-6103</p> <p>01/05/21: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 10/06/20. 1. CHANGED REQUIRED EFFECTIVE DATE FROM "ROUTINE" TO "02/25/2021". 2. ADDED "PENDING" TO FLIGHT CHECKED BY SECTION.</p>					



FIPC BASIC FORM						
PROCEDURE: RNAV (RNP) Z RWY 19R ORIG			AIRPORT NAME: MC CARRAN INTL		AIRPORT ID: KLAS	SPECIAL CONTROL NO: SG-01-086-21
FAC ID: KLAS19RZ		CITY: LAS VEGAS			ST: NV	ORIG CHART DATE: 02/25/2021
DFL TYPE: PROC/P	THIRD PARTY: <input type="checkbox"/> YES	EST. TIME ON SITE: 0.4	REIMB. NUMBER: AC0683	PTS TASK ID:		
PREFLIGHT NOTES						
REVIEWER:					DATE:	
COMMENTS:					CHECK ONE: <input type="checkbox"/> FLT CK REQ <input type="checkbox"/> NFCR <input type="checkbox"/> REJECT	
					YES	NO
					CPV COMPLETE?	X
PROCEDURE RESULTS						
INSPECTION DATE: 01/26/2021	CREW #: VN234	N #: N59	INSTRUMENT PROCEDURE STATUS: <input checked="" type="checkbox"/> SAT <input type="checkbox"/> SAT W/CHANGES <input type="checkbox"/> UNSAT		ARINC CODING: <input type="checkbox"/> SAT <input checked="" type="checkbox"/> SAT/GOLD <input type="checkbox"/> UNSAT	
FLIGHT INSPECTOR SIGNATURE: daniel c favorite @ 01/26/2021 19:01			PRINTED NAME: FAVORITE, DANIEL CHARLES			NOTAM INITIATED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
FLIGHT INSPECTOR REMARKS: All legs flown Sat						
IN-FLIGHT OBSTACLE REPORT						
OBSTRUCTION ID #:	COORDINATES OR LOCATION:	GNSS ALTITUDE (MSL):	BAROMETRIC ALTITUDE (MSL):	HEIGHT ABOVE GROUND LEVEL:		

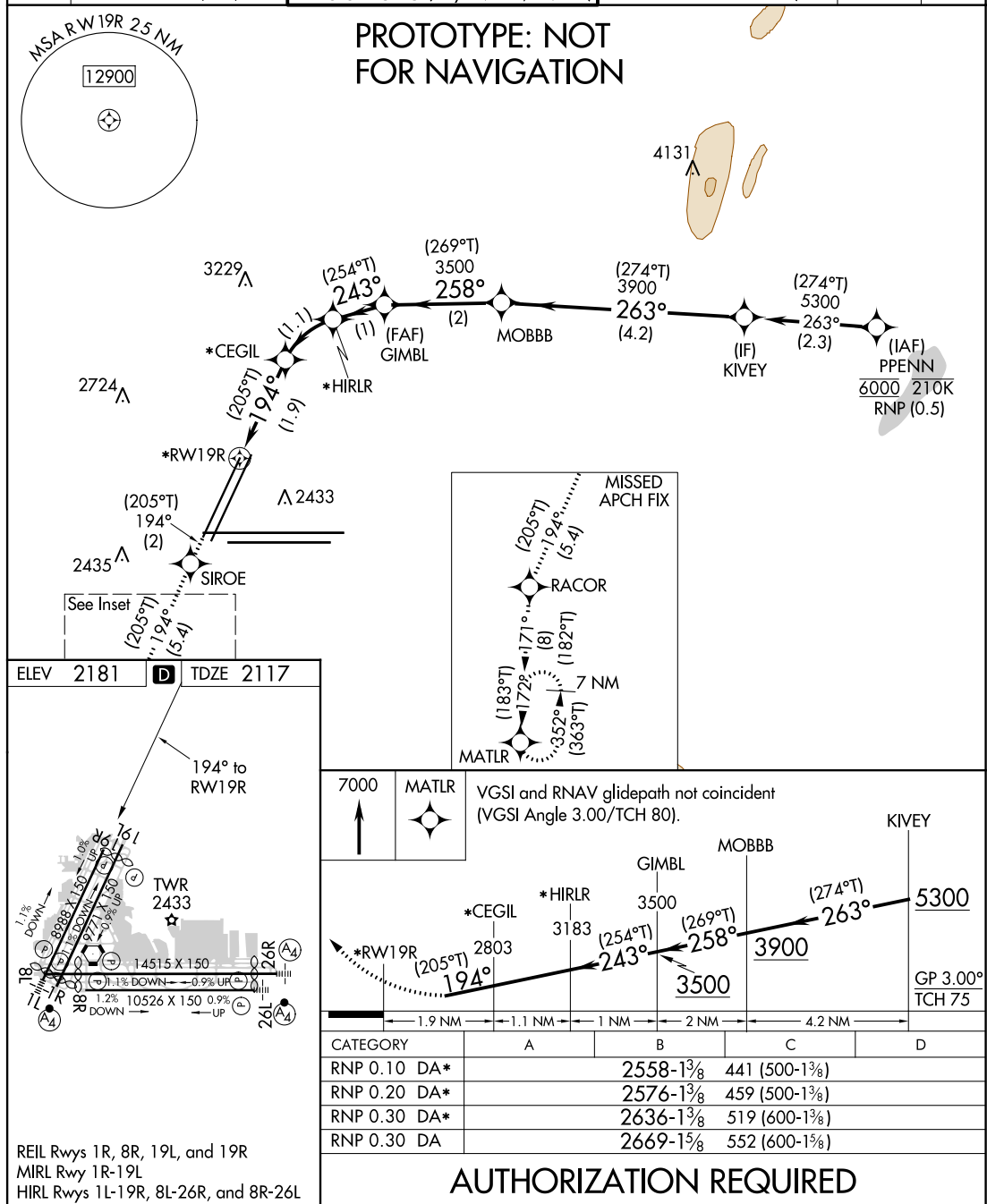
FIPC BASIC FORM						
PROCEDURE: RNAV (RNP) Z RWY 19R ORIG			AIRPORT NAME: MC CARRAN INTL		AIRPORT ID: KLAS	SPECIAL CONTROL NO: SG-12-101-20
FAC ID: KLAS19RZ		CITY: LAS VEGAS			ST: NV	ORIG CHART DATE: 02/25/2021
DFL TYPE: PROC/P	THIRD PARTY: <input type="checkbox"/> YES	EST. TIME ON SITE: 0.4	REIMB. NUMBER: AC0683	PTS TASK ID:		
PREFLIGHT NOTES						
REVIEWER:					DATE:	
COMMENTS:					CHECK ONE: <input type="checkbox"/> FLT CK REQ <input type="checkbox"/> NFCR <input type="checkbox"/> REJECT	
					YES	NO
CPV COMPLETE?						X
PROCEDURE RESULTS						
INSPECTION DATE: 12/18/2020	CREW #: VN003	N #:	INSTRUMENT PROCEDURE STATUS: <input type="checkbox"/> SAT <input type="checkbox"/> SAT W/CHANGES <input checked="" type="checkbox"/> UNSAT		ARINC CODING: <input type="checkbox"/> SAT <input type="checkbox"/> SAT/GOLD <input checked="" type="checkbox"/> UNSAT	
FLIGHT INSPECTOR SIGNATURE: elizabeth whaley @ 12/18/2020 14:32			PRINTED NAME: ARMSTRONG, PAUL ROBERT			NOTAM INITIATED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
FLIGHT INSPECTOR REMARKS: Missed approach course from RACOR to MATLR shows 10nm on 2013C file but 8nm on packet 8260-3 as well as a 1 degree course error. TCH for procedure is 75' but 2013C file Runway Data shows 60' (doesn't effect procedure).						
IN-FLIGHT OBSTACLE REPORT						
OBSTRUCTION ID #:	COORDINATES OR LOCATION:	GNSS ALTITUDE (MSL):	BAROMETRIC ALTITUDE (MSL):	HEIGHT ABOVE GROUND LEVEL:		

FIG

RNAV (RNP) Z RWY 19R
MC CARRAN INTL (LAS)

MISSED APPROACH: Climb to 7000 direct MATLR and hold, continue climb-in-hold to 7000.
***Missed Approach** requires minimum climb of 300 feet per NM to 3000.

D-ATIS 132.4	LAS VEGAS APP CON 125.025 379.15 (West) 125.6 282.2 (East)	LAS VEGAS TOWER 118.75 257.8 (Rwy 1L/19R, 1R/19L) 119.9 257.8 (Rwy 8L/26R, 8R/26L)	GND CON 121.1 270.8 E of 1R/19L 121.9 254.3 W of 1R/19L	CLNC DEL 118.0	CPDLC
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AUTOMATED AL-662 RNAV (RNP) Z RWY 19R
AUTOMATED AL-662 RNAV (RNP) Z RWY 19R

1:250,000

SW-4
5 NOV 2020
COMPILER: CG
REVIEWER:
DBL CHKR:
EFF DATE: FIG

36°05'N-115°09'W

MC CARRAN INTL (LAS)

RNAV (RNP) Z RWY 19R

Request approval for the RNAV (RNP) Z RWY 19R, ORIG to use Precipitous Point Value (PPV) value of 119 feet instead of TARGETS precipitous terrain value of 290 feet in the climb in hold missed holding pattern.

FAAO 8260.3D PARA 3-2-2(b)3, approval is required to use PPV algorithms where it provides an operational advantage.

Aircraft altitude does not reach the missed approach altitude of 7000 feet MSL, therefore a climb-in-hold is required at the missed approach holding point. The controlling obstacle in the climb-in-hold pattern (pattern 15) is a 5720 FT MSL AAO based on a map study. TARGETS generates a precipitous terrain value of 290 FT. This makes the min holding altitude 7010 feet which would round to a min altitude of 7100 (or 8000 if using 1000 feet increments). The LAS metroplex team states the missed approach holding pattern needs to stay at 7000 to deconflict from departing traffic at 6000 FT MSL and arrival traffic at 8000 FT MSL. The FPT ran a PPV evaluation for the climb-in-hold pattern and it produced a PPV value of 119 FT. $5720 + 1000(\text{ROC}) + 119(\text{PPV}) = 6839$ FT MSL minimum holding altitude. This would allow the missed approach altitude to remain at 7000 and be deconflicted from other traffic.

1. FLIGHT PROCEDURE IDENTIFICATION:

KLAS RNAV (RNP) Z RWY 19R

2. WAIVER REQUIRED AND APPLICABLE STANDARD:

Minimum distance from Final Rollout (FROP) to Decision Altitude (DA) Point: FAA Order 8260.58A, Para 4-2-2b

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

The approach was designed to maintain 500 feet of vertical separation within Class B airspace from VFR helicopter tour traffic flying a defined lateral and vertical path north of the approach. This helicopter route is utilized routinely and continuously throughout the year.

The RNAV (RNP) Z RWY 19R distance from the Landing Threshold Point (LTP) to the FROP is 11301.57 feet. The LTP elevation is 2,088.5 feet. The applicable standard requires the FROP to be a minimum of 0.5 NM from the DA point. The distance from the FROP to the DA on the RNP 0.1 and RNP 0.2 meet criteria and does not require a waiver. The distance from the FROP to the DA on the RNP 0.3 (no climb gradient) is 0.39 NM.

The distance from the LTP when the aircraft is 500 feet above the LTP is 7507.6 feet (1.2356 nm).

4. EQUIVALENT LEVEL OF SAFETY PROVIDED:

Height Above Touchdown (HAT) is greater than 500 feet.

Wings are level prior to DA.

RNP 0.3 straight segment after DA to LTP is 1.47 nm and the straight segment on the missed approach from DA to the first turn is 8.89 nm.

This procedure will enable the majority of the aircraft operating at KLAS the ability to continue advisory LNAV and VNAV guidance beyond the FROP to the runway.

5. ALTERNATIVE ACTIONS DEEMED NOT FEASIBLE:

The location of the Nellis Air Traffic Control Facility (NATCF) airspace precludes any further movement north for the approach.

6. COORDINATION WITH USER ORGANIZATIONS (SPECIFY):

Southwest Airlines, Las Vegas TRACON and Las Vegas ATCT

7. SUBMITTED BY:

DATE	OFFICE IDENTIFICATION	TITLE
	AJV-A423	MANAGER

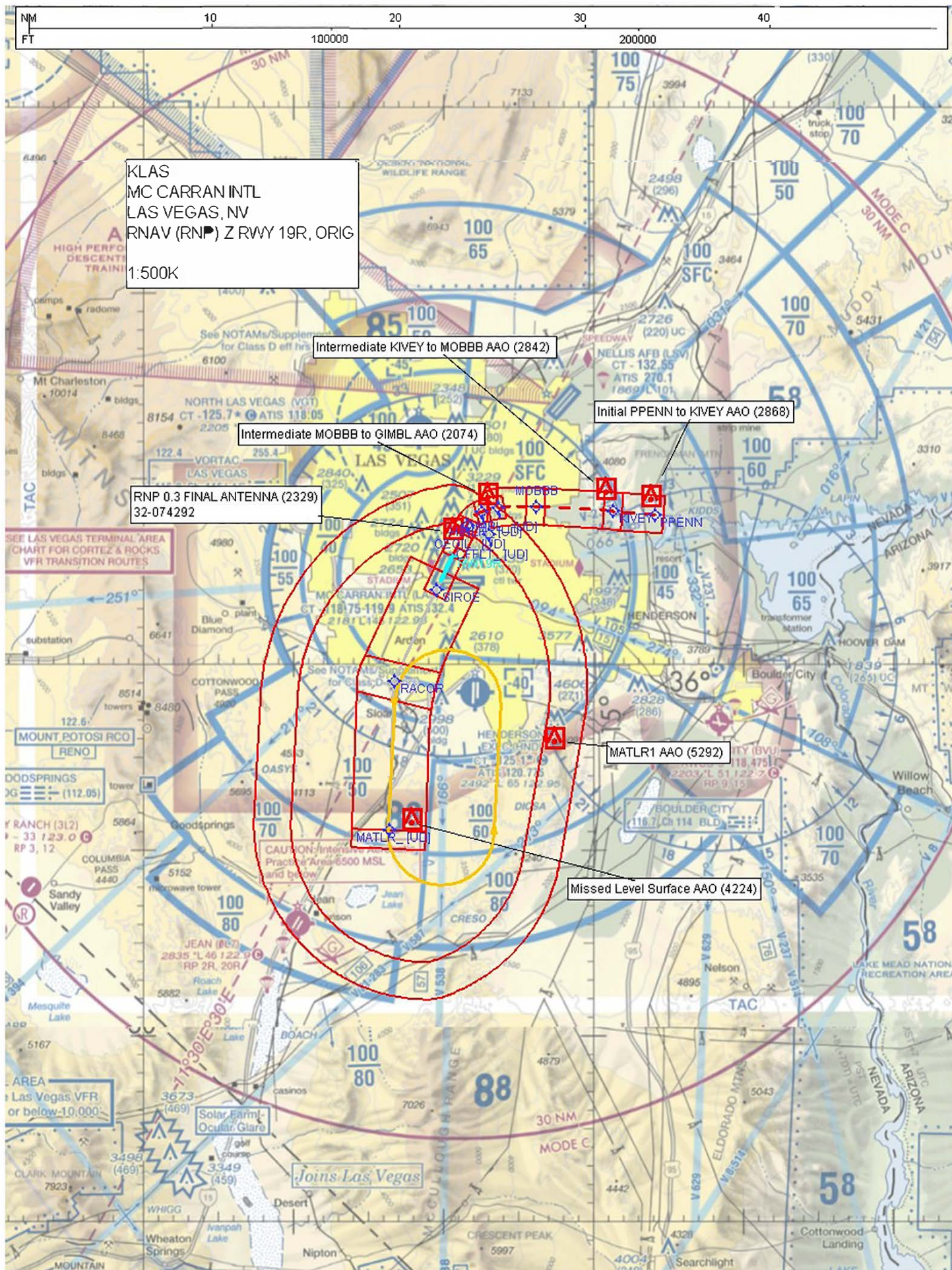
SIGNATURE
Digitally signed by
ALLAN WILL
Nov 18, 2020

8. AFS ACTIONS:

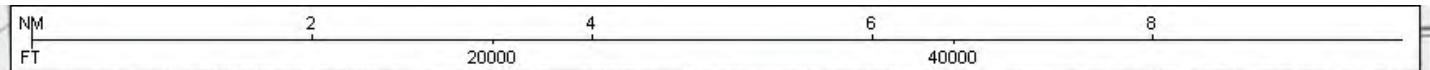
☐ APPROVED ☐ DISAPPROVED ☐ NOT REQUIRED

COMMENTS:

DATE ROUTING SYMBOL SIGNATURE



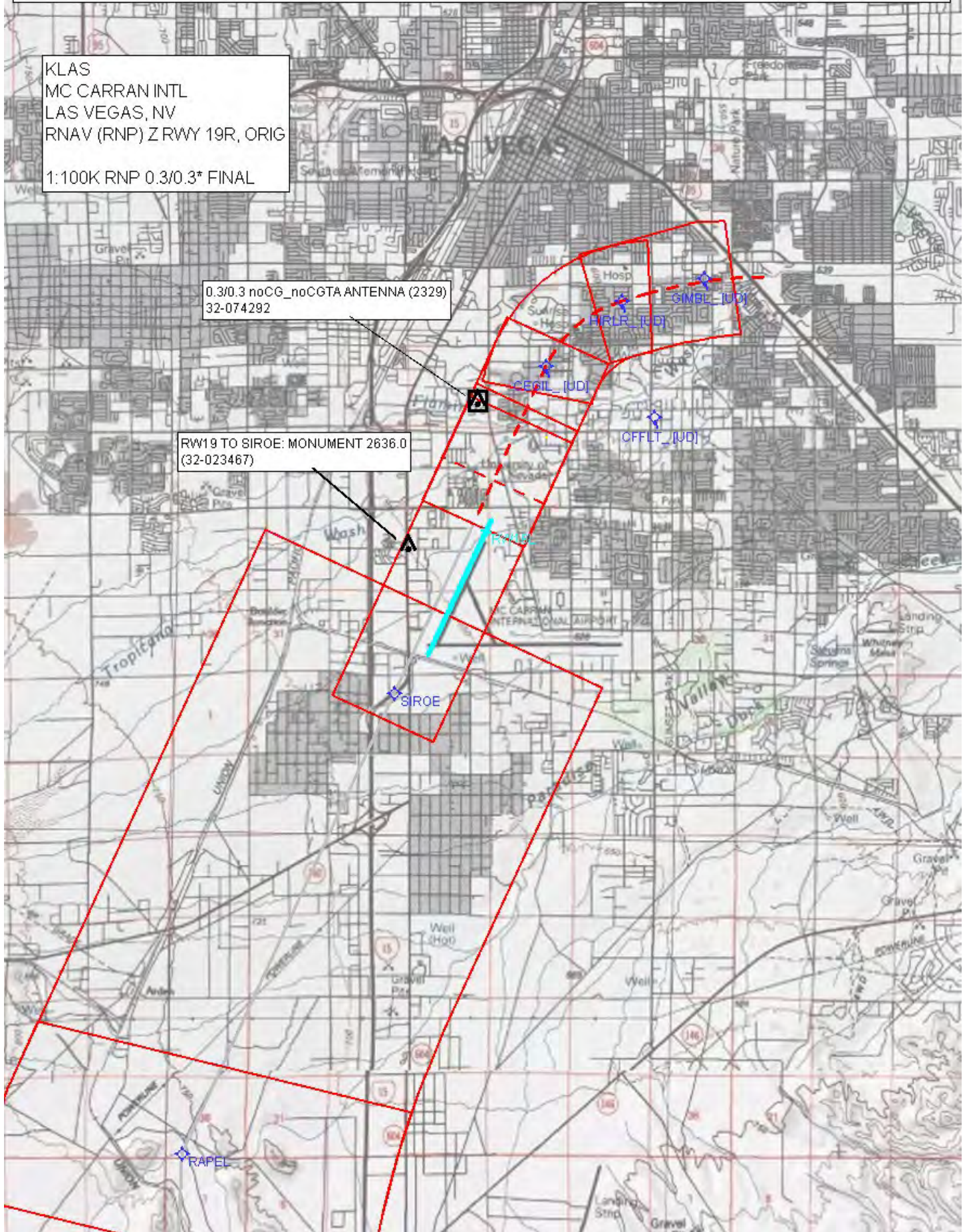


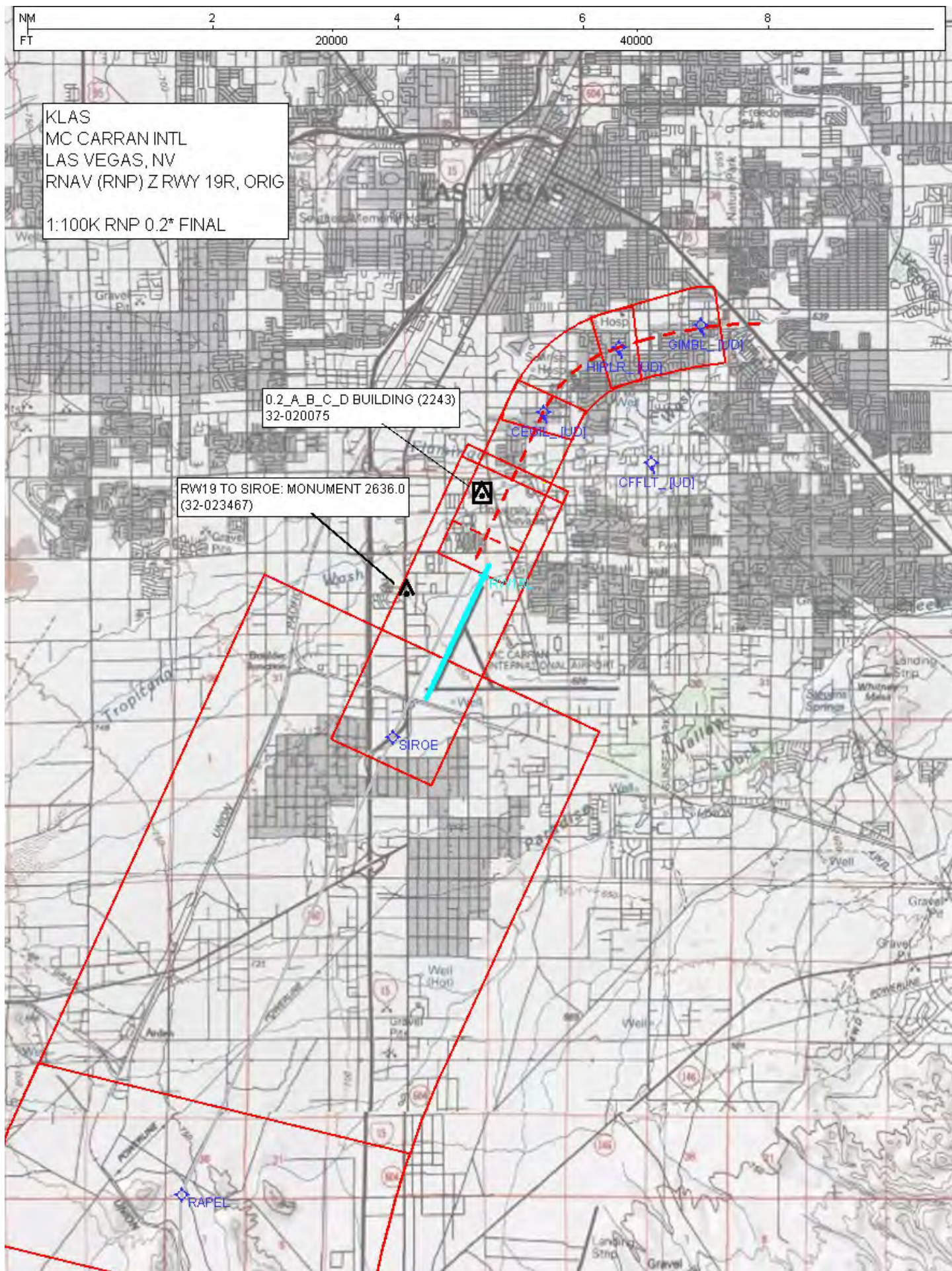


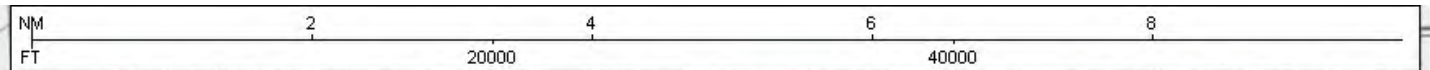
KLAS
MC CARRAN INTL
LAS VEGAS, NV
RNAV (RNP) Z RWY 19R, ORIG
1:100K RNP 0.3/0.3* FINAL

0.3/0.3 noCG_noCGTA ANTENNA (2329)
32-074292

RW19 TO SIROE: MONUMENT 2636.0
(32-023467)







KLAS
MC CARRAN INTL
LAS VEGAS, NV
RNAV (RNP) Z RWY 19R, ORIG
1:100K RNP 0.1* FINAL

0.1_A_B_C_D BUILDING (2229)
32-042062

RW19 TO SIROE: MONUMENT 2636.0
(32-023467)

