

# IAP Chart Modernization ACM CG #18-02-327

21-01 ACM CG Meeting

Richard Boll
NBAA, Access Committee





## **Progress**

- Working Group has continued to meet monthly since last ACM
- Gained consensus on several key components
- Identified some questions that need ACM CG review & comment



#### **Minimums**

- A main goals is the incorporation of the Inoperative Components visibility values into the minima tables, replacing the briefing strip notes.
- ACM 19-02 determined that we cannot remove the military ceiling and visibility.
- Now proposing to remove the repeated visibility value.
  - In cases where an RVR is charted, the parenthetical SM visibility will still be shown as it is today.



#### **Minimums**

#### No change to how RVR is shown today

| Full ALS Visibility |                          |   |                     |                       | ALS INOP Visibility |   |    |   |
|---------------------|--------------------------|---|---------------------|-----------------------|---------------------|---|----|---|
| CATEGORY            | Α                        | В | C                   | D                     | Α                   | В | С  | D |
| LPV DA              | 459/55 453 (500-1)       |   |                     |                       | 11/2                |   |    |   |
| LNAV/<br>VNAV DA    | <b>672</b> -1% 666 (700) |   |                     |                       | 2½                  |   |    |   |
| LNAV MDA            | 660/45 654 (700-%)       |   | 660-13/8 654 (700)  |                       | 60 (1½)             |   | 1% |   |
| CIRCLING            | 760-1¼ 752 (800)         |   | 820-2½<br>812 (900) | 1040-3<br>1032 (1100) |                     |   |    |   |

- ✓ FAA
- ✓ Industry
- ✓ USAF
- ✓ USN
- **□** USA

Duplicate visibility in parentheses removed.

- Addition of INOP visibility
- Removal of repetitive SM visibility:

Current: 760-1<sup>1</sup>/<sub>4</sub> 752 (800-1<sup>1</sup>/<sub>4</sub>)

Proposed: 760-1<sup>1</sup>/<sub>4</sub> 752 (800)



#### **RASS Minima**

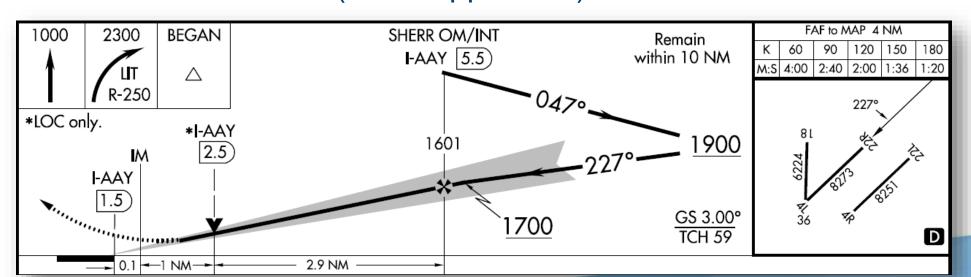
#### **AJV-A Terminal Charting Determination**

- Unable to support a separate line of Remote Altimeter Source Setting (RASS) minima
- (RASS) minima will remain as notes
- Likely fewer locations in the NAS where RASS is used in the future



#### **Profile View**

- Expanded profile box width allowing for improved depiction.
- Standard placement of <u>Simplified Airport Sketch</u> box to the right of the profile. Same height as profile box.
- Time distance table (when applicable) above sketch.



- ✓ FAA
- ✓ Industry
- ✓ USAF
- ✓ USN
- ✓ USA



#### **Simplified Airport Sketch**

- Simplified, smaller airport sketch to only include:
  - runways, runway numbers, runway length,
  - final approach course and bearing (when MAP is within the scale of the sketch box), and
  - declared distance icon (if applicable).
- Significant discussion concerning the final approach course and bearing "directional arrow" that highlights the final approach course's relation to the runway/airport
  - FAA only publishes the "directional arrow" if the MAP falls <u>within</u> the boundaries of the airport sketch
  - NGA/DoD publish it in all cases
- FAA will retain same spec with Simplified Airport Sketch.
- Chart Mod Working Group will bring a sperate RD to the ACM-CG 21-02.



## **Simplified Airport Sketch**

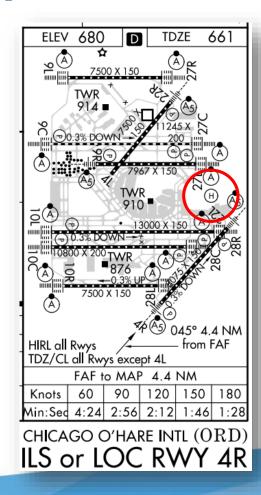
**Heliport Depiction** 

**Current Airport Sketch** 

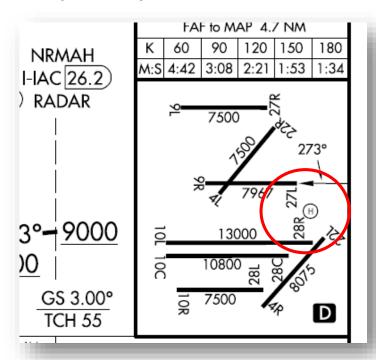
Can You Find the Heliport?



□ ACM-CG Consensus

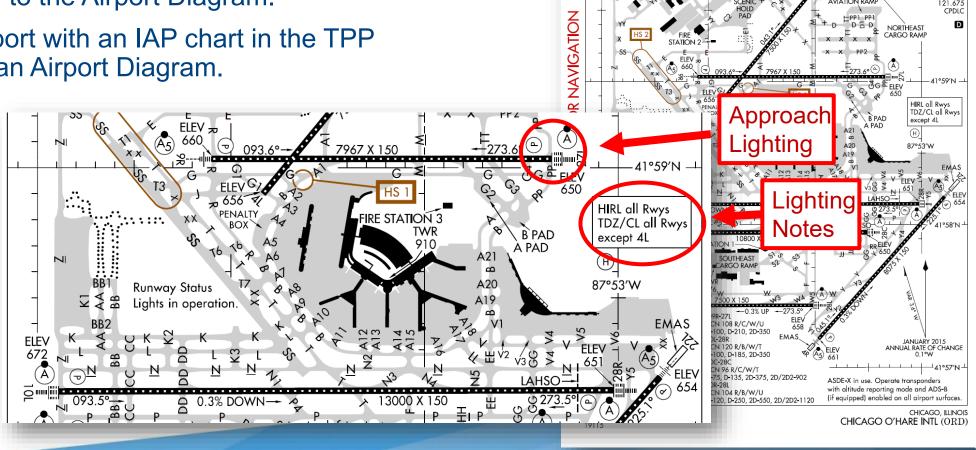


#### Proposed Simplified Airport Sketch Heliport Depicted When Sourced



## **Airport Lighting**

- All airport lighting information previously contained within the airport sketch box will be moved to the Airport Diagram.
- Every airport with an IAP chart in the TPP will have an Airport Diagram.



PROTOTYPE - NOT FOR NAVIGATION

AL-166 (FAA

AIRPORT DIAGRAM

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.

READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED

87°56′W

CHICAGO O'HARE INTL (ORD)

CHICAGO, ILLINOIS

135.4 282.225

128.15 348.0 (RWY 09L-27R) TOWER CENTER

GND CON TOWER CENTER 121.75 226.675 (OBND) 121.9 226.675 (IBND)

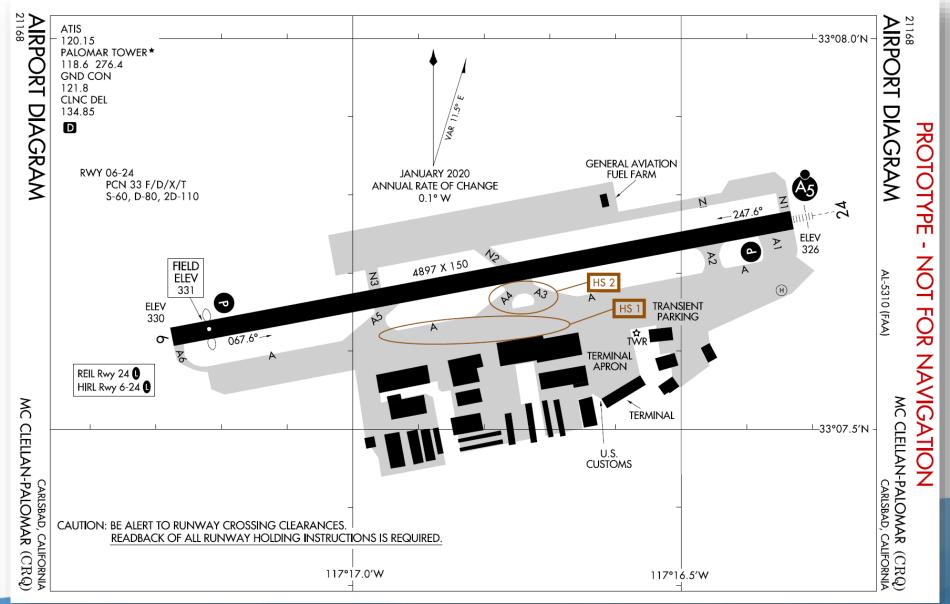
GND CON TOWER SOUTH

GND METERING

120.75 121.15 126.9 132.7 348.0 133.0 348.0 (RWY 10R-28L) GND CON TOWER NORTH

#### **Airport Diagram & Lighting Description**

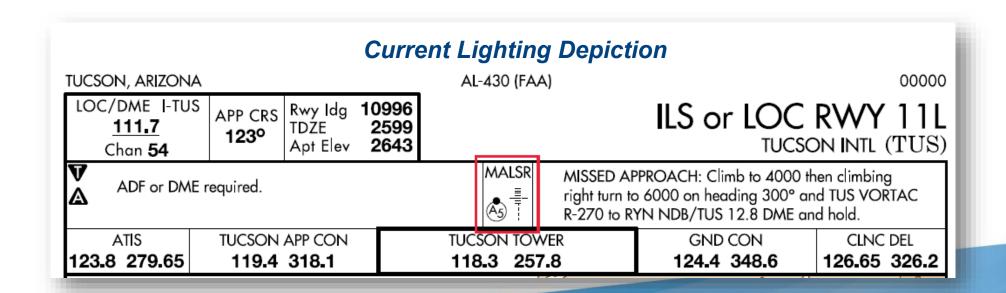






### **Current Briefing Strip Lighting**

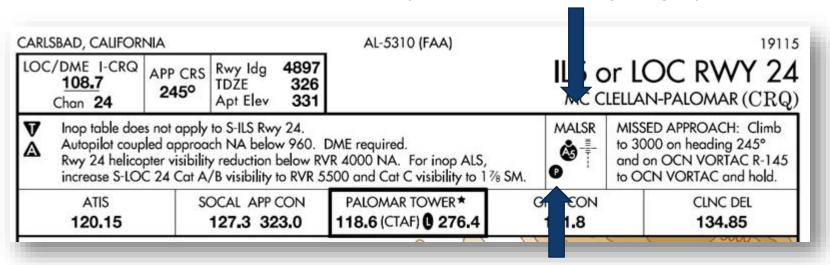
- "Briefing Strip" contains approach lighting to the primary runway only.
  - No approach lights No lighting information in the briefing strip.
- Visual Glide Slope Indicator lighting is not included.



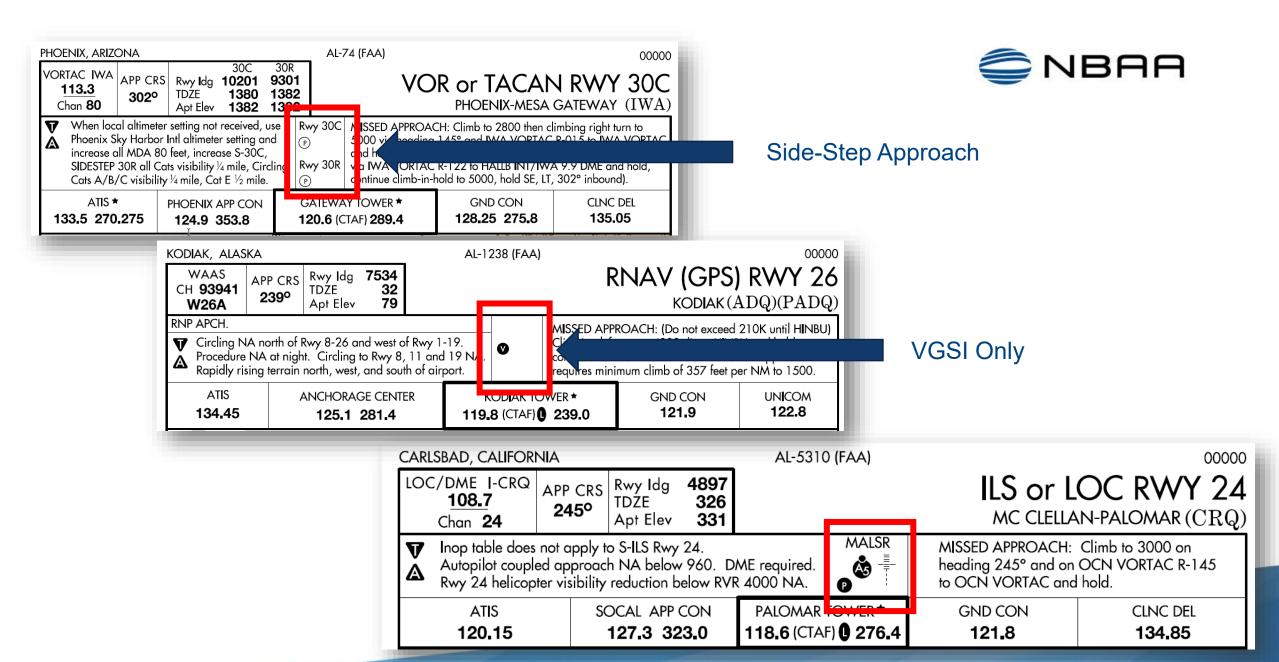


## **Proposed Briefing Strip Lighting**

#### Type of Approach Lighting System

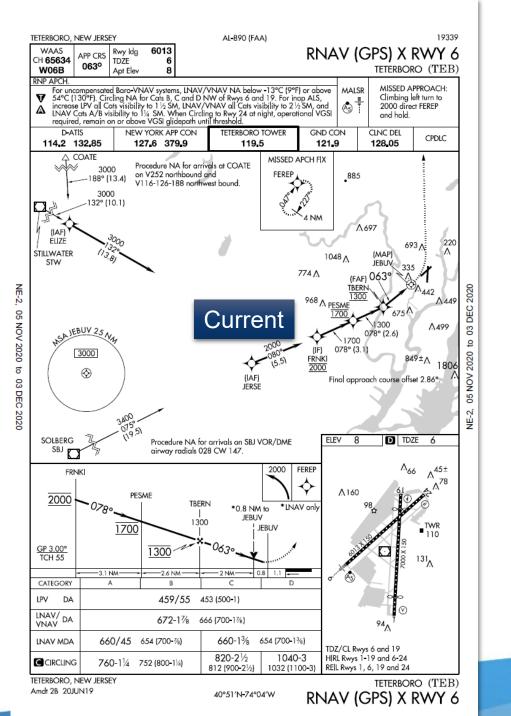


VGSI Type & Location Relative to Runway





## Full Chart - Current & Proposed



TETERBORO, NEW JERSEY AL-890 (FAA) 6013 RNAV (GPS) X RWY 6 WAAS Rwy Idg APP CRS CH 65634 TDZE 063° TETERBORO (TEB) W06B Apt Elev RNP APCH. MALSR MISSED APPROACH: Climbing For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -13°C (9°F) or above 54°C (130°F). Cirding NA for Cats B, C and D NW of Rwys 6 and 19. Circling Rwy 24 NA at night. left turn to 2000 direct FEREP and hold. D-ATIS NEW YORK APP CON TETERBORO TOWER GND CON CLNC DEL CPDLC 114.2 132.85 127.6 379.9 119,5 121,9 128,05 → COATE MISSED APCH FIX Procedure NA for arrivals at COATE on V252 northbound and 3000 (13.4) FERE V116-126-188 northwest bound 3000 132° (10.1) 1 697 (IAF) ÉLIZÉ 1048 734 ∧ STILLWATER Λ STW 559 △ A JEBUV 25 NA Proposed 3000 1700 078° (3.1) ➂ Final approach course offset 2.86° 726 A 1806 PROTOTYPE-NOT FOR NAVIGATION SOLBERG Procedure NA for arrivals on SBJ VOR/DME airway radials 028 CW 147. 2000 FRNK] PESME 2000 **TBERN** \*LNAV only \*0.8 NM to JEBUV 1300 1700 **JEBUV** GP 3.00° TCH 55 1300 D 3.1 NM -Full ALS Visibility ALS INOP Visibility CATEGORY В D DA 459/55 453 (500-1) 11/2 LNAV/ VNAV DA 672-1% 666 (700) 21/2 660/45 654 (700-%) 660-1% 654 (700) 1% **LNAV MDA** 60 (11/4) 820-21/2 1040-3 CIRCLING 760-11/4 752 (800) 1032 (1100) 812 (900) TETERBORO, NEW JERSEY TETERBORO (TEB)

Amdt 2A 00XXX00

RNAV (GPS) X RWY 6

LITTLE ROCK, ARKANSAS AL-233 (FAA) LOC/DME I-AAY Rwy Idg 8273 ILS or LOC RWY 22R APP CRS 110,3 TDŹE 262 227° 266 BILL AND HILLARY CLINTON NATIONAL/ADAMS FIELD (L.I.T.) Chan 40 Apt Elev DME required. Simultaneous approach authorized with Rwy 22L VDP NA when using Stuttgart altimeter setting. When local altimeter setting not received, use Stuttgart altimeter setting; increase all DA to 544 feet and increase S-LS all Cost visibility to RVR 2200; increase all MDA 100 feet and increase S-LOC Cat C/D visibility to RVR 5500, and Circling Cat B visibility to 1½ SM, Cat C visibility to 3 SM. For inop ALS, increase S-LOC Cat C/D visibility to RVR 600D. For inop ALS when using Stuttgart altimeter setting, increase S-LS all Cats visibility to RVR 4500 and S-LOC Cat C/D visibility to 1½ SM. MISSED APPROACH: Climb to 1000 then climbing right turn to 2300 on LIT VORTAC R-250 to BEGAN INT. UT 22 DME and hold. TILE ROCK APP CON 135,4 353,6 ADAMS TOWER 125,65 118.95 121.9 339.8 2000 NoPT ALTERNATE MISSED MISSED APCH FIX to HIGHS APCH FIX 227° (7.3) **BEGAN** HIGHS INT <sup>R</sup>-29>, UT [22] **BEGAN** LJT [12) Chan 86 PBF 37.1 I-AAY 11.7 1700 MM & 227° (6.2) (IAF) SHERR OM/INT <sub>^</sub> 2220 FAAY (5.5) Z00 700 ΛA LOCALIZER 110.3 Current I-AAY 718 / 870 Chan 40 1900 -004° (6.4) 508 SALIT 25 NA R-250 LITTLE ROCK 113.9 ЦТ :--Chan 86 △1047  $\bigcirc$ ELEV 266 D TDZE 262 16.0 Procedure NA for arrival at LIT VORTAC on V305 and V124 southwest bound. 227° 4 NM from FAF BEGAN 1000 2300 SHERR OM/INT -AAY within 10 NM R-250 \*LOC only \*FAAY 1900 GS 3.00° TCH 59 700 --- 1 NM------ 2.9 NM--CATEGORY D TDZ/CL Rwy 22R S-ILS 22R 462/18 200 (200-1/2) MIRL Rwy 18-36 HIRL Rwys 4R-22L and 4L-22R S-LOC 22R 680/24 418 (500-1/2) 680/40 418 (500-14) FAF to MAP 4 NM Knots 60 90 120 150 180 1000-1 1180-23/4 1180-3 CIRCLING Min:Sec 4:00 2:40 2:00 1:36 1:20 534 (600-1) 734 (800-1) 914 (1000-2%) LITTLE ROCK, ARKANSAS BILL AND HILLARY CLINTON NATIONAL/ADAMS FIELD (LIT) Amdt 3A 08NOV18 ILS or LOC RWY 22R

34°44′N-92°13′W

LITTLE ROCK, ARKANSAS AL-233 (FAA) 00000 LOC/DME I-AAY Rwy Idg 8273 TDZE 262 ILS or LOC RWY 22R APP CRS 110,3 227° BILL AND HILLARY CLINTON NATIONAL/ADAMS FIELD (LIT) Apt Elev 266 Chan 40 DME required. Simultaneous approach authorized with Rwy 22L. VDP NA when using Stuttgart alimeter setting. When local alimeter setting not received, use Stuttgart alimeter setting: increase all DA to 544 feet and increase S-ILS all Cats visibility ASR to RVR 2200; increase all MDAs 100 feet and increase S-IOC Cat C/D visibility to RVR 5500, and Circling Cat B visibility to 1½ SM, Cat C visibility to 3 SM. For inop ALS when using Stuttgart altimeter setting, increase S-ILS all Cats visibility to RVR 4500 and S-IOC Cat C/D visibility to 1½ SM. MISSED APPROACH: Climb to 1000 then dimbing right turn to 2300 on UT VORTAC R-250 to BEGAN INT/LIT 22 DME and hold LITTLE ROCK APP CON CLNC DEL D-ATIS ADAMS TOWER GND CON 125.65 135.4 353.6 118.95 118.7 257.8 121.9 339.8 ALTERNATE MISSED MISSED APCH FIX 2000 NoPT APCH FIX to HIGHS 227° (7.3) <sup>₹9</sup>>\_ LIT [22] HIGHS INT BEGAN Chon 86 , Chan 84 LIT [12) DÜMP| |-AAY [18.9] PBF 37.1) FAAY 11.7 MM ¥ 1700 227° (6.2 SHERR OM/INT / 2220 Proposed LOCALIZER 110.3 833<sup>V</sup> I-AAY PROTOTYPE-NOT Chan 40 FOR NAVIGATION 1900 004° (6.4) SALIT 25 MA 3300 LITTLE ROCK 160 113.9 LIT ::-Chan 86 ∆ 1047 Procedure NA for arrival at LIT VORTAC on V305 and V124 southwest bound FAF to MAP 4 NM 1000 2300 BEGAN SHERR OM/INT Remajn 60 90 120 150 180 within 10 NM I-AAY [5.5] UT Δ R-250 \*LOC only 1900 FAAY GS 3.00 1700 TCH 59 2.9 NM ALS INOP Visibility # INOP TDZ or RCLS Full ALS Visibility CATEGORY В C D S-ILS 22R 462/18 200 (200-1/2) 40(3/4) #24(1/2) 680/24 55(1) 60 (11/4) S-LOC 22R 418 (500-1/2) 680/40 418 (500=3/4) 800-1 1000-1 1180-23/4 1180-3 CIRCLING 534 (600)

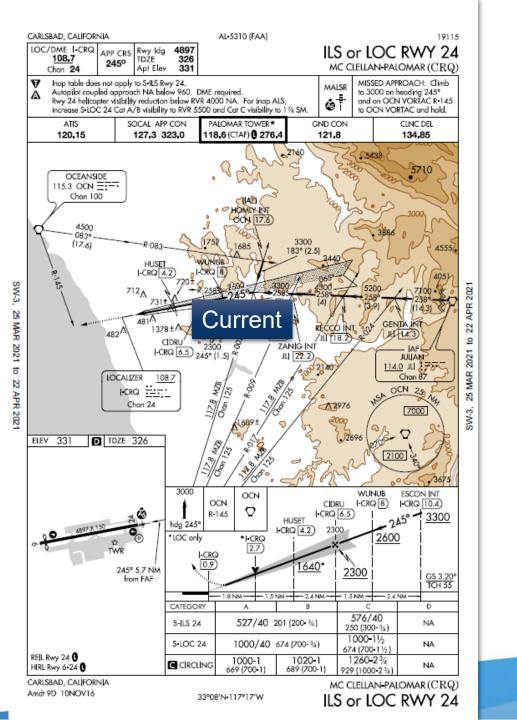
LITTLE ROCK, ARKANSAS Amdt 3 00XXX00

734 (800)

914 (1000)

BILL AND HILLARY CLINTON NATIONAL/ADAMS FIELD (LIT) ILS or LOC RWY 22R 34°44′N-92°13′W

914 (1000)



CARLSBAD, CALIFORNIA AL-5310 (FAA) 00000 LOC/DME I-CRQ 4897 ILS or LOC RWY 24 APP CRS Rwy Idg 108,7 TDZE 245° MC CLELLAN-PALOMAR (CRQ) Chan 24 Apt Elev 331 Inop table does not apply to S-ILS Rwy 24,
Autopilot coupled approach NA below 960. DME required. MISSED APPROACH: Climb to 3000 on · \* † heading 245° and on OCN VORTAC R-145 Rwy 24 helicopter visibility reduction below RVR 4000 NA. to OCN VORTAC and hold. SOCAL APP CON PALOMAR TOWER★ GND CON CLNC DEL 118.6 (CTAF) 0 276.4 120,15 127.3 323.0 121.8 134.85 **OCEANSIDE** 115.3 OCN =:--Chan 100 4500 0830 3300 (17.6)I-CRQ 4.2) 481 JU 18.2 Proposed 482 JULIAN 114.0 JU 278 Chan 87 LOCALIZER 108.7 HCRQ ::-:-OCN 25 Chan 24 7000 OCN ESCON INT OCN -CRQ [10.4)  $\nabla$ I-CRQ 8) CIDRU R-145 HCRQ (6.5) ∆5° - 3300 hdg 245° \*LOC only I-CRQ 4.2) 2600 0 2300 GS 3.20° TCH 55 + 1.8 NM ---- 1.5 NM ---- 2.4 NM ---- 1.5 NM ---- 2.4 NW -Full ALS Visibility ALS INOP Visibility CATEGORY D C 576/40 527/40 201 (200-34) S-ILS 24 NA 250 (300-34) 1000-11/2 17/8 S-LOC 24 1000/40 674 (700-3/4) NA 55(1) 674 (700-1 1/2) 1020-1 689 (700-1) 1260-23/4 1000-1 **C** CIRCLING 929 (1000-23/4) MC CLELLAN-PALOMAR (CRQ)

CARLSBAD, CALIFORNIA Amdt 9D 00XXX00

ILS or LOC RWY 24

PHOENIX, ARIZONA AL-74 (FAA) 20198 VORTAC IWA APP CRS Rwy Idg 10201 TDZE 1380 9301 VOR or TACAN RWY 30C 1382 PHOENIX-MESA GATEWAY (IWA) Chan **80** Apt Elev 1382 1382 MISSED APPROACH: Climb to 2800 then climbing right turn to When local altimeter setting not received, use Phoenix 5000 via heading 145° and IWA VORTAC R-015 to IWA VORTAC A Sky Harbor Intl altimeter setting and increase all MDA and hold, continue climb-in-hold to 5000 (TACAN aircraft continue 80 feet, increase S-30C, SIDESTEP 30R all Cats visibility via IWA VORTAC R-122 to HALLB INT/IWA 9.9 DME and hold, 1/4 mile, circling Cats A/B/C visibility 1/4 mile, Cat E 1/2 mile continue climb-in-hold to 5000, hold SE, LT, 302° inbound) ATIS ★ GATEWAY TOWER ★ GND CON CLNC DEL PHOENIX APP CON 133.5 270.275 120.6 (CTAF) 289.4 128.25 275.8 135.05 124.9 353.8 ALBNY WA 2.5 PHOENIX 1489 115.6 PXR :-:-4400 to SNOWL 1666 Chan 103 -122° (6.4) ↑ 2234 (IAF) WILLIE \_SNOWL INT 13.3 IWA := WA 6.4) Chan 80 -HALLB INT SAIWA 25 N WA 9.9 (3.5)DEC Current 5600 ဗ 2 DELLA INT STANFIELD 14.8 TFD ... IWA 19.9) 05 NOV Chan 95 Cat E procedure turn not authorized GIZZA INT RADAR REQUIRED TUS 46 2800 5000 **SNOWLINT** Remain [WA WA 6.4) R-336 within 10 NM R-015  $\Diamond$ hdg 145 9000 336°-TUCSON ALBNY (46)16.0 TUS ::-WA WA Chan 107 2.5) 0.6) \*2020 when using ELEV 1382 D TDZE 30C 1380 3300 Phoenix Sky Harbo TDZE 30R 1382 1940\* Intl altimeter setting HIRL Rwys 12L-30R and 12C-30C REIL Rwys 12L and 30R CATEGORY MIRL Rwy 12R-30L 1940-11/2 1940-1% 1940-2 1940-1 560 (600-1) S-30C 560 (600-1) 560 (600-134) 560 (600-2) 1940-11/2 1940-1 558 (600-1) 1940-2 558 (600-2) SIDESTEP 30R 558 (600-1) 1940-11/2 1940-2 2020-21/2 CIRCLING 1940-1 558 (600-1) 558 (600-11/2) 558 (600-2) 638 (700-2) 1496 DME MINIMUMS 1800-17 S-30C 1800-1 420 (500-1) 1800-11/4 420 (500-11/4) 420 (500-1) 302° 5.8 NM from FAF 1800-11/2 1800-1 418 (500-1) 1800-2 418 (500-2) SIDESTEP 30R FAF to MAP 5.8 NM 418 (500-1) 1880-11/2 60 90 120 150 1940-2 2020-21/4 Knots CIRCLING 1880-1 498 (500-1) 498 (500-1½) | 558 (600-2) | 638 (700-2½) Min:Sec | 5:48 | 3:52 | 2:54 | 2:19 | 1:56

PHOENIX, ARIZONA AL-74 (FAA) VORTAC IWA APP CRS VOR or TACAN RWY 30C Rwyldg 10201 9301 113.3 1380 1382 TDŹE 302° PHOENIX-MESA GATEWAY (IWA) Chan 80 Apt Elev 1382 1382 When local altimeter setting not received, use MISSED APPROACH: Climb to 2800 then climbing right turn to 5000 via heading 145° and IWA VORTAC R-015 to IWA VORTAC Phoenix Sky Harbor Intl altimeter setting and increase all MDA 80 feet, increase S-30C, and hold, continue climb-in-hold to 5000 (TACAN aircraft continue SIDESTEP 30R all Cats visibility 1/4 mile, Circling via IWA VORTAC R-122 to HALLB INT/IWA 9.9 DME and hold, continue climb in hold to 5000, hold SE, LT, 302° inbound). Cats A/B/C visibility 1/2 mile, Cat E 1/2 mile ATIS ★ PHOENIX APP CON GATEWAY TOWER ★ GND CON CLNC DEL 128.25 275.8 135,05 133.5 270.275 124.9 353.8 120,6 (CTAF) 289,4 ALBINY WA 2.5 PHOENIX 1489 115.6 PXR :-:-4400 to SNOWL Chan 103 -122° (6.4) WILLE SNOWL INT 113.3 IWA := WA (6.4) Chan 80 SAIWA 25 NA WA 9.9 (3.5)8900 **Proposed** STANFIELD DELLA INT 114.8 TFD =:-WA [19.9) Chan 95 GIZZA INT PROTOTYPE-NOT FOR NAVIGATION R-336-Cat E procedure turn not authorized. 9000 RADAR REQUIRED 336°-TUCSON (46)16.0 TUS ::-2800 5000 Chan 107 M/A SNOWLINT  $\Diamond$ FAF to MAP 5.8 NM R-015 Remain hdg WA 6.4) K 60 90 120 150 180 within 10 NM M:S 5:48 3:52 2:54 2:19 1:56 ALBNY 0.6 \*2020 when using 3300 Phoenix Sky Harbor <u>∠3.03°</u> TCH 49 Intl altimeter setting. 1940 D 1.2 NM 0.7 3.9 NM -CATEGORY 1940-1 560 (600) 1940-13/ 560 (600) 1940-2 560 (600) S-30C 1940-11/2 560 (600) 1940-1 558 (600) SIDESTEP 30R 1940-11/5 558 (600) 1940-2 558 (600) CIRCLING 1940-1 558 (600) 1940-11/558 (600) 1940-2 558 (600) 2020-21/4 638 (700) DME MINIMUMS S-30C 1800-1 420 (500) 1800-11/2 420 (500) 1800-11/2 420 (500) SIDESTEP 30R 1800-1 418 (500) 1800-11/2 418 (500) 1800-2 418 (500) CIRCLING 1880-1/2 498 (500) 1940-2 558 (600) 2020-21/2 638 (700) 1880-1 498 (500) PHOENIX, ARIZONA PHOENIX-MESA GATEWAY (IWA) 33°18'N-111°39'W Amdt 2B 00XXX00

VOR or TACAN RWY 30C

PHOENIX, ARIZONA Amdt 2B 11DEC14

05 NOV 2020

ð

03 DEC

2020

33°18′N-111°39′W PHOENIX-MESA GATEWAY (IWA)



#### Implementation Roadmap

#### **ACM-CG Comments By 1 June 2021**

- Formal recommendation to the ACM at the 21-02 meeting
- IAC specification revision
  - Coordinated between FAA & DoD
- Change 8260.19 Order
  - In parallel with IAC specification change
  - Inoperative components added to the minima tables
  - Deletion of the notes for inoperative components
- Automation tools
- Updates to Pilot/User Guidance, Chart User Guide, AIM/AIP, etc.
- Training programs Civil & Military



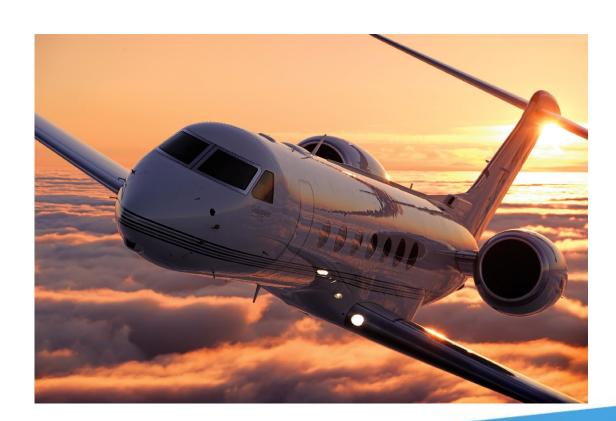
## Please Provide Comments By 1 June 2021

**ACM-CG** Website For Examples





## **Questions & Discussion**





## DEDICATED TO HELPING BUSINESS ACHIEVE ITS HIGHEST GOALS.

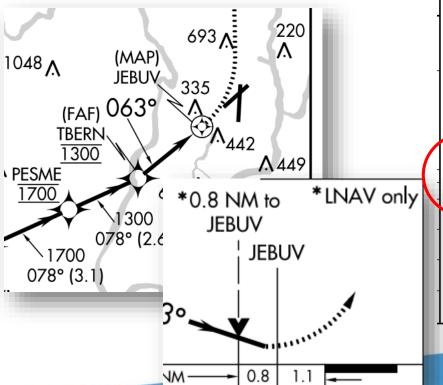


## **Simplified Airport Sketch**

KTEB RNAV (GPS) X Rwy 6

**Current Airport Sketch** 

MAP is outside of sketch



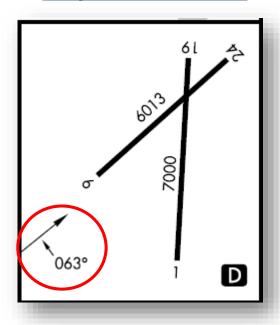
D TDZE 6 **ELEV** TDZ/CL Rwys 6 and 19 HIRL Rwys 1-19 and 6-24 REIL Rwys 1, 6, 19 and 24

Proposed Simplified Airport Sketch

Should FAA Adopt the NGA/DoD Position?

FAA Will Not Publish Distance

Only FAC Extended!



□ ACM-CG Consensus