

# PRACTICE INAV MIDTERM

INAV I Practice Test

Re: INAV I Practice Key/Citations

20170209

TiltMafia

1. For aviation, frequency 225.00 is identified as:

- a. LF
- b. HF
- c. VHF
- d. UHF

2. In the conterminous United States, the operational limitations established on an (H) VORTAC are \_\_\_\_\_ NM from 14,500' to 17,999' AGL.

- a. 40
- b. 100
- c. 130
- d. 250

3. A VOR with the Radio Class Code ABVORW has:

- a. Transcribed automatic weather broadcast service is available & is without voice.
- b. Transcribed automatic weather broadcast service is available & is with voice.

4. When performing a VOR receiver calibration check, the maximum permissible error is:

- a. 4° for VOT checks
- b. 4° when cross-checking needles
- c. 4° on the ground and 6° in the air
- d. a, b and c are all correct.

5. Station passage is indicated by:

- a. The 2 DME if the aircraft is 15,000' MSL and 12,000' AGL over the TACAN station
- b. The TO/FROM switches from "TO" to "FROM" for VOR.
- c. The ADF needle passes the wing tip.
- d. All of the above.

6. What are the frequency ranges for LOC and LF/MF NDB:

- a. LOC: 108.1 - 111.95 kHz (odd tenths) and LF/MF NDB: 190 -535 MHz
- b. LOC: 108.1 - 111.95 MHz (odd tenths) and LF/MF NDB: 190 -535 kHz
- c. LOC: 108.1 - 117.95 MHz (odd tenths) and LF/MF NDB: 190 -535 kHz
- d. LOC: 108.1 - 111.95 kHz and LF/MF NDB: 190 -535 kHz

7. Give the characteristics of the LF/MF NDB:

- a. Not line of sight
- b. Not affected by altitude
- c. Affected by electrical storms
- d. All of the above

8. When flying over a TACAN station at 18,000' MSL and 6000' AGL, the DME should read:

- a. 1
- b. 2
- c. 3
- d. 4

9. Routes between major cities involving 2 or more centers and listed in ~~AP/1~~ are called:

- a. Preferred routes.
- b. Preferential routes
- c. Victor airways
- d. Jet routes.

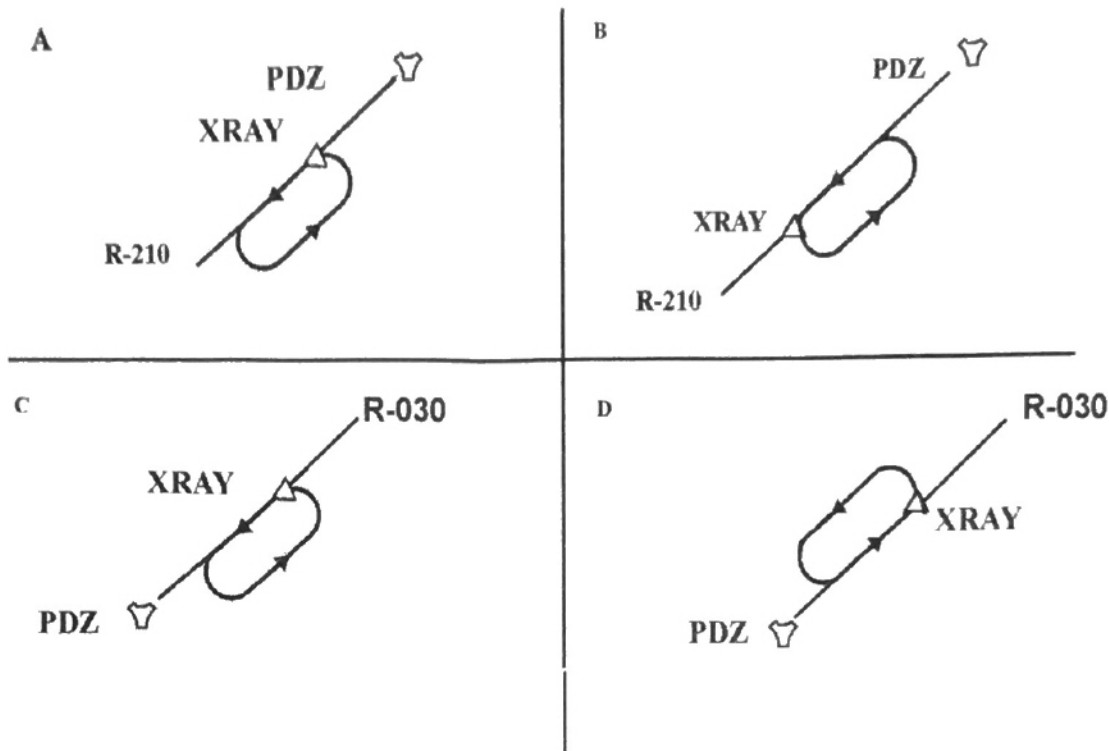
FAA Online Database

10. A pilot should always be able to raise a Center controller on UHF Emergency (243.0) from any location within the Center's area of jurisdiction.
- True
  - False
11. A contact approach is pilot initiated. He/she must be on an IFR flight plan and may deviate from a Standard Instrument Approach Procedure as long as:
- He/she remains clear of clouds and has at least 1 statute mile visibility and 500 foot ceiling.
  - He/she maintain VFR conditions throughout the approach.
  - He/she has the field in sight.
  - He/she remains clear of clouds and has 1 statute mile visibility
12. Center controllers will be able to determine your altitude within increments of \_\_\_\_\_ feet (with Mode C).
- 20
  - 50
  - 75
  - 100
13. Pilots of aircraft operating on an IFR flight plan will adjust their transponder to STANDBY (or OFF):
- Unless otherwise instructed by ATC
  - When instructed by ATC
14. An L class NDB (compass locator) has a usable range of \_\_\_\_\_ NM:
- 15
  - 18
  - 25
  - 40
15. Localizer signals normally have a useful range of \_\_\_\_\_ within 10° of the centerline:
- 15 NM
  - 18 NM
  - 25 NM
  - 40 NM
16. The call sign for approach control, tower, ground control or clearance delivery:
- Will use the facility name unless a different name is listed in the IFR Supplement.
  - Always uses the facility name.
17. While in a radar environment, when the initial call-up to a Center controller is to be made, the pilot will include the:
- Position
  - Time
  - Altitude
  -
18. DME has the following range and accuracy:
- 250 NM with an accuracy of 1 NM or 3 % whichever is greater
  - 199 NM with an accuracy of 1 NM or 3 % whichever is greater
  - 199 NM with an accuracy of 1/2 NM or 3 % whichever is greater
  - 200 NM with an accuracy of NM or 3 % whichever is greater
19. LF/MF NDB has the following frequency range and accuracy:
- 275.0 to 287.0 MHz with an accuracy of +/- 3°
  - 275.0 to 287.0 MHz with an accuracy of +/- 5°
  - 190 to 535 MHz with an accuracy of +/- 5°
  - 190 to 535 kHz with an accuracy of +/- 5°

20. The compass locator at the LOM associated with I-SAT is identified by these letters in Morse code:
- I-SAT
  - SAT
  - SA
  - AT
21. A clearance, referring to the Galveston NDB, which intends a 270 track from the NDB, is spoken as:
- TWO SEVEN ZERO BEARING FROM GALVESTON RADIO BEACON
  - TWO SEVEN ZERO COURSE FROM GALVESTON
  - TWO SEVEN ZERO DEGREE BEARING FROM GALVESTON
  - GALVESTON TWO SEVENTY BEARING
22. A pilot operating with an assigned altitude of "MAINTAIN VFR CONDITIONS ON TOP" while on a low altitude airway instrument flight plan, is required to make position reports:
- Under the same rules as any other instrument flight plan.
  - Every 200 nautical miles.
23. ATC shall be notified whenever the ETA at the destination changes by more than:
- 3 minutes
  - 5 minutes
  - 10 minutes or 5% (whichever is greater)
  - 30 minutes
24. The missed approach for the ILS approach is identified by:
- Timing
  - DME
  - DH (Decision Height)
  - LMM (Locator Middle Marker)
25. The phraseology "CRUISE 6000" indicates that:
- The pilot must maintain 6000 feet.
  - The pilot may maintain any altitude from the minimum altitude up to and including 6000 feet.
  - The pilot is cleared for the approach at the destination.
  - Both b and c are correct.
26. On a composite flight plan (IFR first, VFR last), the clearance will usually authorize flight to:
- The destination airport
  - The last IFR fix.
  - The first VFR fix
  - The IAF
27. The phrase "CLEARED AS FILED" includes \_\_\_\_\_ as requested on the DD-175.
- Route only
  - Route and altitude
28. An altitude assignment of "VFR CONDITIONS ON TOP" on an IFR low altitude airways flight requires that the pilot notify the Center prior to changing altitude.
- True
  - False
29. On an instrument approach the procedure turn must be completed within
- One to two minutes after IAF passage
  - Three minutes after IAF passage
  - Ten nautical miles of the IAF.
  - The maneuvering area designated for the procedure

30. Consider the following holding clearance:

"HOLD NORTHEAST OF XRAY INTERSECTION, ON THE PODUNK 210 RADIAL, LEFT TURNS, EXPECT FURTHER CLEARANCE AT 30." Which of the following patterns is correct?



31. For holding above 14,000 feet time:

- 1 1/2 minutes from wings level.
- 1 minute from wings level
- 1 1/2 minutes from wings level or abeam (whichever last)
- 1 1/2 minutes from abeam

32. While flying inbound to the PODUNK VOR on the 240 radial, the pilot receives the following clearance: "HOLD NORTHWEST OF PODUNK VOR, ON THE 300 RADIAL \_" To enter holding turn:

- Left to a heading of 300° for a parallel entry.
- Right to a heading of 300° for a direct entry.
- Left to a heading of 270° for a teardrop entry.
- Right to a heading of 270° for a teardrop entry.

33. While flying inbound to the XRAY radio beacon on the 355 course to XRAY, the pilot receives the following clearance: "HOLD NORTHEAST OF XRAY RADIO BEACON ON THE 220 COURSE TO XRAY"

To enter holding turn:

- Right to a heading of 040° for a parallel entry.
- Left to a heading of 220° for a direct entry.
- Right to a heading of 010° for a teardrop entry.
- Left to a heading of 040° for a parallel entry.

34. As you near your destination (40 NM out), if flight is being conducted along an airway, when you receive an approach clearance which contains no altitude restriction, you may descend to

- The MEA along the airway
- The procedure turn altitude
- The minimum sector altitude
- The MOCA along the airway

35. The publication that contains radar minimums is the FLIP
- Planning
  - Enroute Supplement
  - Enroute Charts
  - Terminal
36. When cleared for a "straight-in approach" you should
- Always omit the procedure turn
  - Always use the straight-in landing minimums
  - (Both "a" and "b" are correct).
37. Upon arriving at the IAF, lost comm., the pilot should hold:
- On the arrival course
  - In the depicted arrival pattern
  - At the IAF on the final approach course making turns toward the procedure turn side.
  - b is correct if the pattern is depicted c is correct if the pattern is not depicted.
38. If the final approach course is aligned within 30°, straight-in landing minimums will always be available.
- TRUE
  - FALSE
39. In addition to visibility minimums, Navy pilots must also consider ceiling minimums in both the terminal phase and the preflight phase of flight.
- TRUE
  - FALSE
40. Controllers cannot disapprove a pilot's action when he cancels his IFR flight plan while operating on a low altitude airway in Class E airspace.
- TRUE
  - FALSE
41. Whenever the symbol "V" is shown on the FLIP Terminal Charts, Navy pilots should disregard it.
- TRUE
  - FALSE
42. On an instrument approach the HAT for the side-step runway is measured from:
- The touchdown zone of the side step runway
  - The touchdown zone of the approach runway
  - The field elevation
  - Mean sea level
43. Full deflection on the CDI is:
- 10° for VOR or TACAN
  - 2 1/2 ° for localizer
  - 10 nautical miles for RNAV
  - All of the above
- USE FIGURE 1 FOR QUESTIONS 44 AND 45.**
44. What radial is the aircraft on?
- The aircraft is on the 240 Radial.
  - The aircraft is on the 065 Radial.
  - The aircraft is on the 235 Radial.
  - The aircraft is on the 060 Radial.

45. The course is \_\_\_\_\_, and the TO/FROM flag is \_\_\_\_\_.
- 055.....TO
  - 060.....FROM
  - 235.....TO
  - 240.....FROM
46. Aircraft heading is  $180^\circ$ , the VOR needle points  $350^\circ$  "TO" the VOR. The aircraft is on the:
- R-350
  - R-170
  - R-180
  - R-360

**USE FIGURE 2 FOR QUESTIONS 47 AND 48**

47. What radial is the aircraft on?
- The aircraft is on the 210 Radial
  - The aircraft is on the 120 Radial
  - The aircraft is on the 030 Radial
  - The aircraft is on the 300 Radial
48. What is the bearing from the NDB?
- 210
  - 120
  - 030
  - 300
49. The VOT identification signal will be either a continuous tone or a continuous series of
- Dots
  - Dashes
  - Alternating dots and dashes
50. TACAN is a line-of-sight system. The maximum DME range is limited to:
- 130, slant range
  - 199, horizontal range
  - 130, horizontal range
  - 199, slant range

**USE FIGURE 3 FOR QUESTION 51**

51. The RMI has failed with a heading of  $360^\circ$ . Actual heading is  $180^\circ$ . Course to the NDB is:
- $330^\circ$
  - $210^\circ$
  - $030^\circ$
  - $110^\circ$
52. TACAN stations transmit a three-letter identifier once every \_\_\_\_\_ seconds.
- Few (continuous)
  - 10
  - 37.5
  - 60
53. The CDI will fully deflect when the aircraft is \_\_\_\_\_ or more off the selected course.
- $1^\circ$  (VOR/TACAN) and  $2.5^\circ$  (LOC)
  - $4^\circ$  (VOR/TACAN) and  $1^\circ$  (LOC)
  - $5^\circ$  (VOR/TACAN) and  $2.5^\circ$  (LOC)
  - $10^\circ$  (VOR/TACAN) and  $2.5^\circ$  (LOC)

54. A transponder with mode C is required in:
- A, B, C airspace and above 10,000' MSL, 2500' AGL
  - A, B, C, D airspace and above 10,000' MSL, 2500' AGL
  - A, B, C airspace and above 10,000' MSL, 1500' AGL
  - A, B, C airspace and above 14,500' MSL, 1500' AGL

**USE FIGURE 4 FOR QUESTIONS 55-57**  
**NOTE: The NAVAID signal is from a TACAN station.**

55. If you turn left to intercept the course you will be:
- Flying to the TACAN station
  - Flying from the TACAN station
56. What TACAN radial is the aircraft on?
- R-315
  - R-360
  - R-180
  - R-135
57. The course selected will take the aircraft \_\_\_\_\_ the TACAN station.
- TO
  - FROM
58. DME is acceptable from \_\_\_\_\_ to \_\_\_\_\_ nautical miles with an actual slant range of 3 nautical miles.
- 0.....6
  - 1.....5
  - 1<sup>1</sup>/<sub>2</sub>.....4<sup>1</sup>/<sub>2</sub>
  - 2<sup>1</sup>/<sub>2</sub>.....3<sup>1</sup>/<sub>2</sub>
59. You are heading 180° to the 15 DME fix on the 135° radial. You are cleared to: "HOLD SOUTHEAST OF THE 15 DME FIX ON THE 135° RADIAL, 5 MILE LEGS." To enter holding:
- Turn left to 135° for a parallel entry
  - Turn left to 165° for a teardrop entry
  - Turn left to 105° for a teardrop entry
  - Turn right to 165° for a teardrop entry
60. During a TACAN arc the wind is blowing the aircraft away from the station. To maintain position on the arc, the head of the TACAN needle should be \_\_\_\_\_ the 90° benchmark on the HIS
- On
  - Above
  - 45° left or right of
  - Below
61. On an ILS approach plate, the Localizer missed approach:
- Is collocated with the ILS missed approach and always depicted by the missed approach in the profile view.
  - Always starts at the middle marker
  - Point is always determined by timing
  - Is determined by the FAF to MAP distance located above the time block
62. NDB approach minimums are normally \_\_\_\_\_ than approach minimums for other types of approaches.
- Higher
  - Lower

63. UHF NDB signals \_\_\_\_\_ to atmospheric interference and are \_\_\_\_\_ than VOR/TACAN.
- Are susceptible.....more accurate
  - Are not susceptible.....less accurate
64. If the aircraft's compass system is functioning properly, the value read under the head of the ADF is the \_\_\_\_\_ the station, and the value under the tail of the ADF needle is the \_\_\_\_\_ the station.
- Heading to .... radial from
  - Bearing to .... course from
  - Course to.....bearing from
65. Your assigned altitude is 16,000'. With a two way radio failure your altitude upon reaching the IAF is:
- 16,000' if higher than the MEA
  - Minimum altitude for the IAF
  - MEA if higher than 16,000'
  - Both a and c are correct
66. You arrive at the IAF at 1600 with a two way radio failure and enter holding. . Your EFC is 1610. Your ETA is 1630. You should commence the descent and/or approach at:
- 1600
  - 1610
  - 1630
  - the revised ETA (original ETA plus time in holding).
67. The aircraft is outbound on the 090° radial, to proceed inbound on the 070° radial using the 45° method:
- Turn left to a heading of 295°
  - Turn right to a heading of 295°
  - Turn left to a heading of 025°
  - Turn left to a heading of 050°
68. Inbound on the 090° radial, to proceed inbound on the the 070° radial using the double the angle method:
- Turn right to a heading of 290°
  - Turn right to a heading of 295°
  - Turn left to a heading of 025°
  - Turn left to a heading of 050°
69. On final during an ASR approach, initiate lost communication procedures if no transmissions are received for:
- 5 seconds
  - 15 seconds
  - 30 seconds
  - 1 minute
70. When making a no-gyro approach, the pilot will be instructed to make
- Standard rate turns after turning on to final approach
  - Half-standard rate turns after turning on to final approach
  - Half-standard rate turns prior to turning on to final approach
71. Prior to turning on to final during a PAR approach, all turns should be at:
- 30° angle of bank
  - Standard rate not to exceed 30° angle of bank
  - Half-standard rate
  - Standard rate, regardless of angle of bank



72. While being vectored downwind for a PAR approach, if radio communications are lost for \_\_\_\_\_, the pilot should follow the lost communications procedures.
- 5 seconds
  - 15 seconds
  - 30 seconds
  - 1 minute
73. An instrument check was flown in the T-44 and an instrument rating issued. The pilot may file for instrument flight in:
- The T-44 only
  - The T-44 and the TC-12
  - All aircraft in which the pilot is NATOPS qualified
  - Fixed wing aircraft only
74. Glide slope transmitters operate in the \_\_\_\_\_ frequency band.
- LF
  - SHF
  - VHF
  - UHF
75. The Inner Marker of an ILS produces an identification signal of
- Continuous dots
  - Continuous dashes
  - Alternating dots and dashes
76. What is the normal function of the Inner Marker of an ILS?
- The point on the glide slope where DH occurs in a CAT I ILS approach
  - The ILS final approach fix
  - DH for a CAT II ILS approach is normally reached at or near this point
77. The \_\_\_\_\_ receiver receives localizer and glide slope signals.
- VOR 1
  - VOR 2
  - TACAN
  - Both a and b
78. There is/are \_\_\_\_\_ marker beacon receiver(s) in the T-44 and the TC-12
- 1
  - 2
  - 3
  - 4
79. The Localizer frequency range is \_\_\_\_\_ to \_\_\_\_\_, odd tenths only.
- 108.1.....117.95MHz
  - 108.1.....111.95 MHz
  - 108.1.....135.95MHz
  - 108.1.....111.95kHz

80. Under two-way voice failure, an aircraft holding in the terminal area, at the fix from which the approach begins is expected to commence the descent and or approach at the:

- a. Expected Further Clearance time, if one has been received
- b. Expected Time of Arrival as calculated from the filed or amended time enroute if no EFC received
- c. Both a and b are correct
- d. Time when two-way voice failure occurred

81. A two-way voice failure means that

- a. The pilot is unable to receive voice only
- b. The pilot is unable to transmit only
- c. The aircraft's navigational receivers have failed
- d. The pilot is unable to transmit voice and/or receive voice

82. Under two-way voice failure, the pilots should maintain a listening watch on available navigation aids. Which one of the following receivers should be monitored in preference to the others?

- a. ADF
- b. Transponder
- c. TACAN
- d. VOR

83. Under two-way voice failure in VMC, the pilot

- a. Is expected to fly 2 triangles every 20 minutes
- b. Should land as soon as possible, regardless of airport characteristics
- c. Should continue to the destination if, upon re-entering IMC, he operates in accordance with the standard two-way voice failure procedures, even though a suitable airport was available
- d. May continue to the destination if able to maintain VMC and if no suitable airport is available

**ASSUMPTIONS FOR QUESTIONS 84 through 88 (refer to L-3, L-4, L-5 charts and TLA Volume 4):**

Point of Departure----- MCAS Yuma  
 Destination airport----- Los Alamitos AAF  
 Requested Route----- Direct Bard VORTAC, V-66 Mission Bay, V-23 SEAL BEACH VORTAC direct KRUST for a TACAN RWY 22L approach at Los Alamitos AAF  
 Requested initial cruising altitude-----8000 feet

84. Suppose you received and acknowledged the following clearance: "ATC CLEARS NAVY \_\_\_\_ TO IMPERIAL VIA DIRECT BARD, VICTOR SIXTY SIX IMPERIAL, MAINTAIN FOUR THOUSAND." If you experience a two-way voice failure over Bard while in IFR conditions you should:

- a. Maintain 4000 to Imperial
- b. Climb immediately to "VFR CONDITIONS ON TOP"
- c. Climb immediately to 8000; maintain 8000 to Imperial
- d. Descend immediately to 3600; maintain 3600 to Imperial

85. After passing Bard, you receive and acknowledge the following clearance: "HOLD EAST OF IMPERIAL, ALONG VICTOR SIXTY SIX, MAINTAIN SIX THOUSAND EXPECT FURTHER CLEARANCE AT ONE FIVE THREE ZERO." Prior to arriving at Imperial you experience two-way voice failure. What should you do?

- a. Hold at Imperial: depart at 1530: increase TAS so as to arrive at KRUST at the original ETA as indicated on your flight plan
- b. Hold at Imperial until the ETA specified in the flight plan
- c. Hold at Imperial: depart at 1530: start your approach from KRUST at the revised ETA (original ETA plus holding time en route)
- d. Continue past Imperial, without holding, to KRUST start your approach at the original ETA as indicated on your flight plan

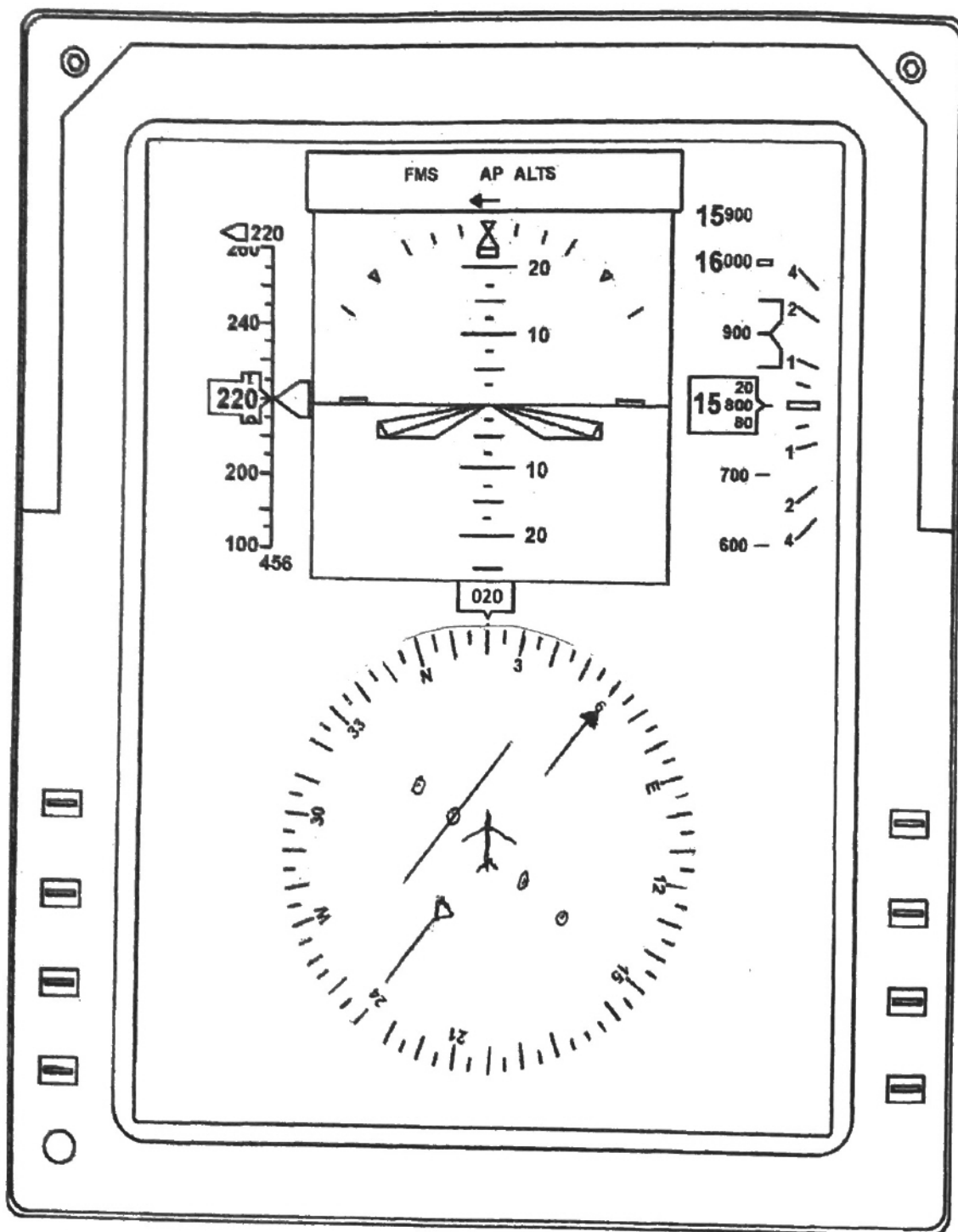
ch begins

86. Continuing the same situation developed in question 85 above, upon departing Imperial, you should:
- a. Immediately climb to 8,000
  - b. Maintain 6,000 and then climb to 8,400 upon reaching Kumba
  - c. Descend to 5,000 and then climb to 8,400 upon reaching Kumba
  - d. Maintain 6,000 then start a climb so as to cross Kumba at a minimum of 6,700, finally leveling off at 8,400
87. Continuing the same situation in questions 85 and 86, upon reaching BARET, you should:
- a. Maintain the last cruising altitude to SEAL BEACH.
  - b. Descend to and maintain 4,000 until reaching SEAL BEACH.
  - c. Descend to and maintain 7,000 until reaching POGGI, then 6,000 until reaching KRUST.
  - d. Descend to 4,000 until passing Mission Bay, descend to 3,000 until passing Oceanside, climb to 4,000 until reaching KRUST.

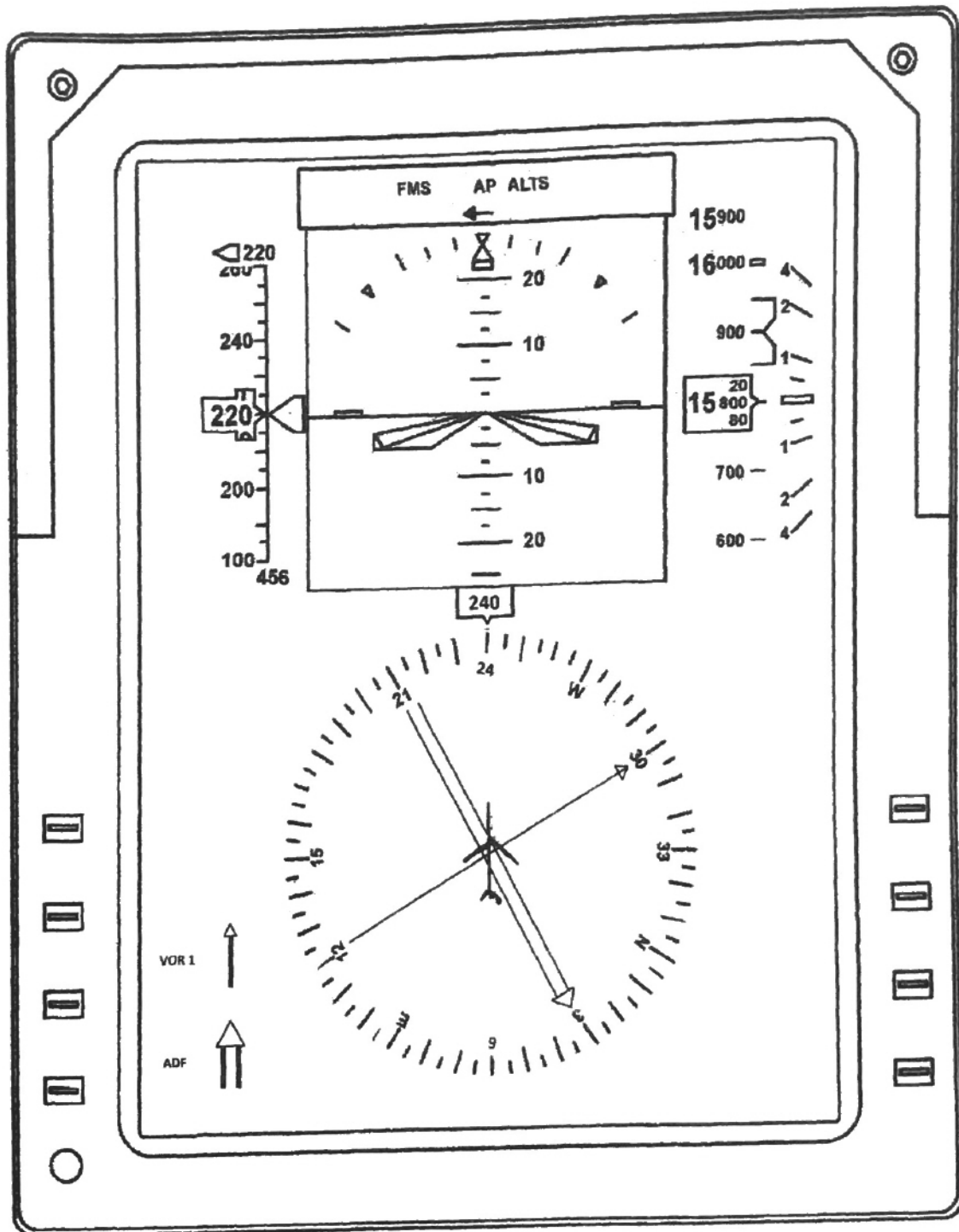
**USE FIGURE 5 TO ANSWER QUESTION 88**

88. While en route to SEAL BEACH VORTAC, under two-way voice failure, you determine that you will reach KRUST before you ETA, upon reaching the KRUST you should:
- a. Hold at SEAL BEACH on the inbound course from Oceanside, standard pattern, start the approach at ETA
  - b. Immediately begin the approach due to the absence of holding instructions
  - c. Hold on the 214° radial of the SEAL BEACH VORTAC, procedure turn side of the TACAN RWY 22L approach, start the approach at the ETA
  - d. Hold on the 034° radial of the SEAL BEACH VORTAC, non-standard holding pattern at KRUST, and start the approach at the ETA

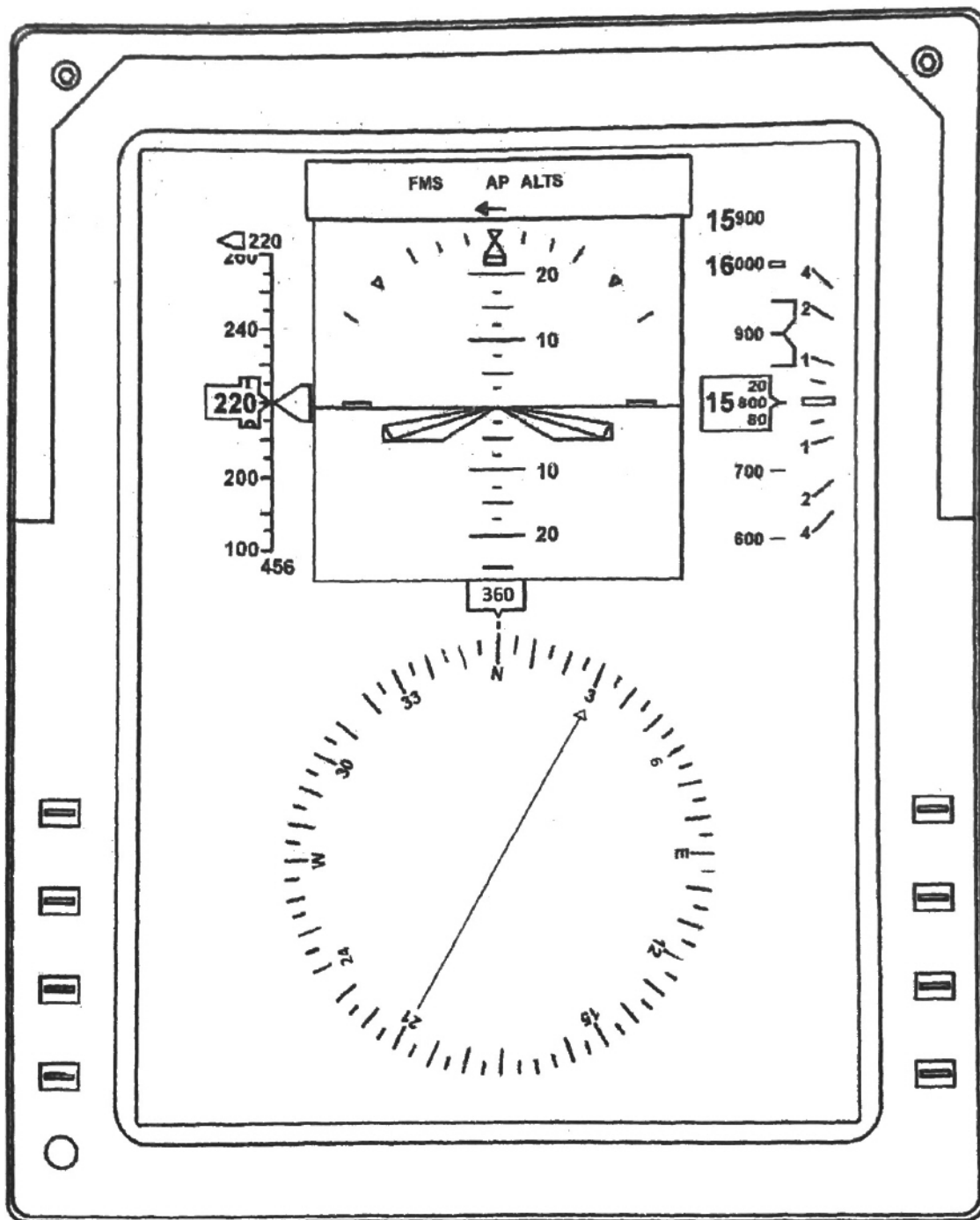
# Figure 1



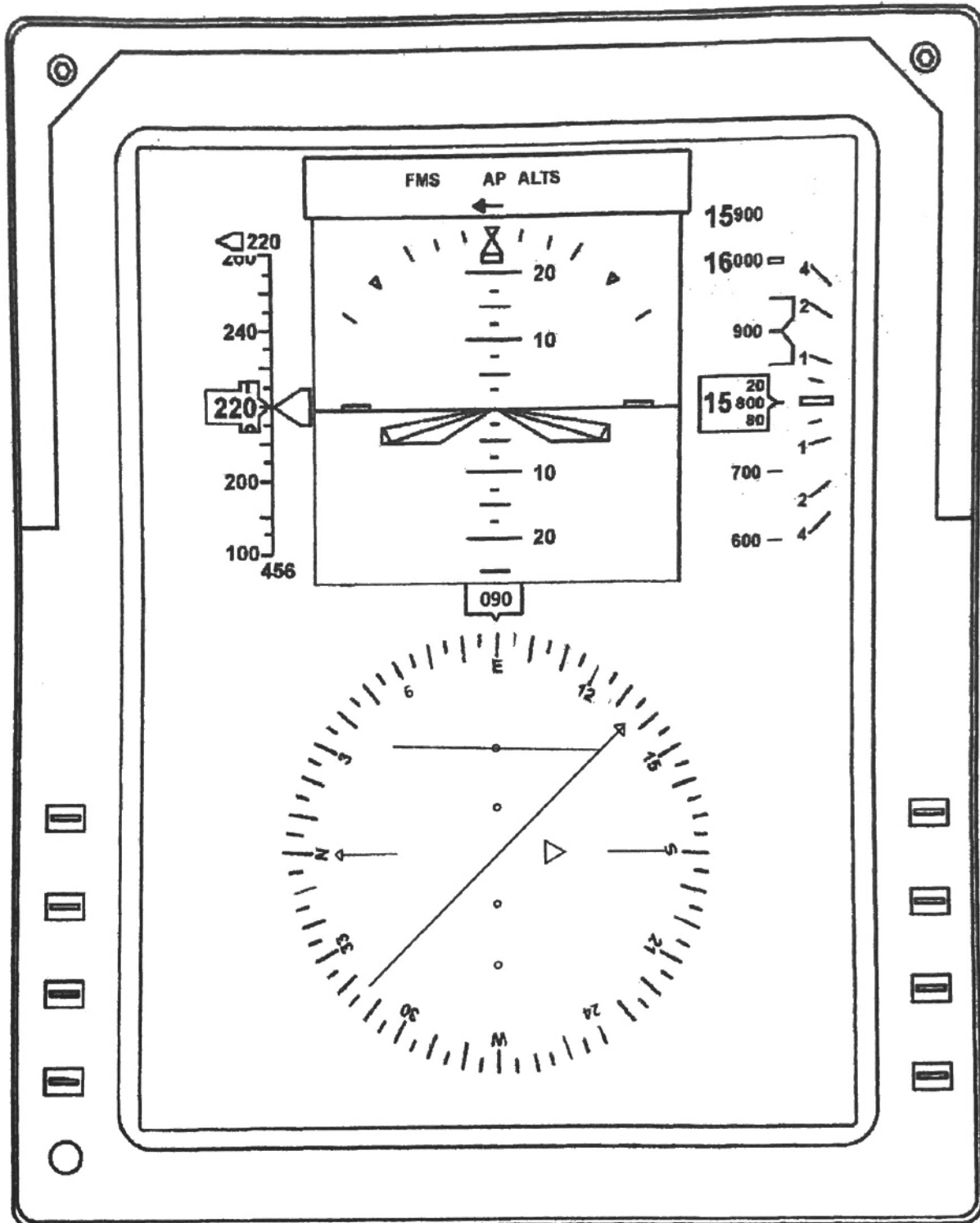
# Figure 2



# Figure 3



# Figure 4



# Figure 5

LOS ALAMITOS, CALIFORNIA

## VOR or TACAN RWY 22L

VORTAC SLI 115.7 Chan 104	APCH CRS 214°	Rwy ldg 8001 TDZE 32 Arpt Elev 32	AL-953 [USA]	LOS ALAMITOS AAF (KSLI)
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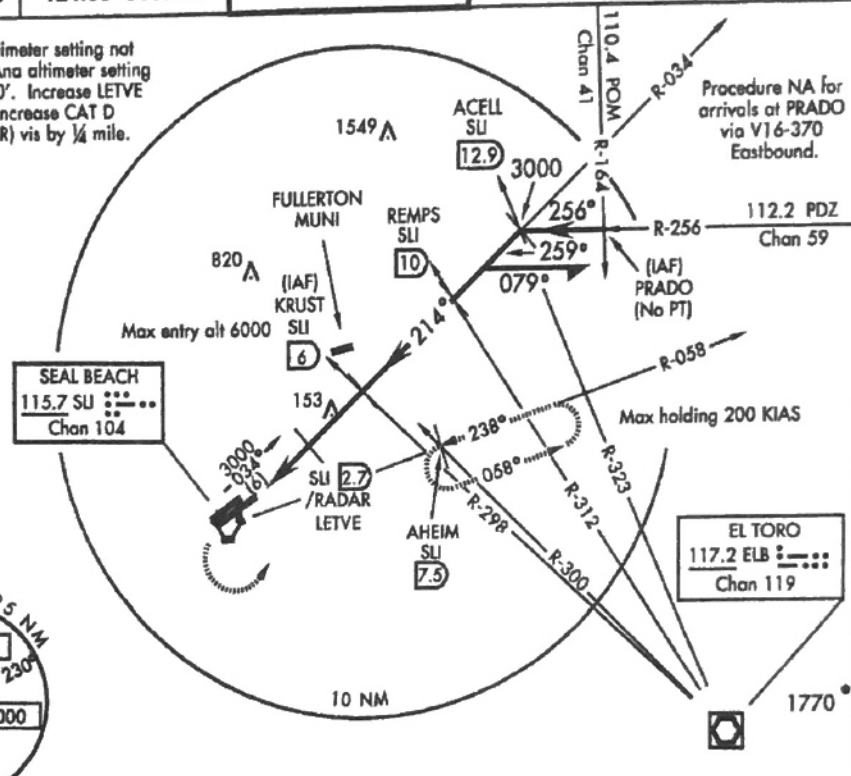
\* When ALS inop, increase vis CAT D ¼ mile.  
 \*\* Circling not authorized N of Rwy 4L-22R.



MISSED APPROACH: Climb to 1800, then climbing left turn to 3000 via SLI VORTAC R-058 to AHEIM INT and hold.

ATIS * 118.875 379.975	SOCAL APP CON 124.65 316.125	LOS ALAMITOS TOWER * 123.85 251.15	GND CON 126.95 257.95	PAR
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When Los Alamitos altimeter setting not available, use Santa Ana altimeter setting and increase MDAs 40'. Increase LETVE fix minimum by 40'. Increase CAT D (S-22L, DME or RADAR) vis by ¼ mile.



SW-3, 18 NOV 2010 to 16 DEC 2010

SW-3, 18 NOV 2010 to 16 DEC 2010

ELEV 32		AHEIM																															
1800	3000	6000	Remain within 10 NM																														
VGSIs and descent angles not coincident. † A1 or above 620 when using Santa Ana Altimeter setting.																																	
VORTAC	OYAVE SLI 1.7 /RADAR	LETVE SLI 2.7 /RADAR	REMPs SLI 10																														
580↑	1700	2700	3000																														
034°	214°	3.11°	TCH 55																														
<table border="1"> <thead> <tr> <th>CATEGORY</th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> </tr> </thead> <tbody> <tr> <td>S-22L</td> <td>580-¾ 548 (600-¾)</td> <td>580-1¼ 548 (600-1¼)</td> <td>580-1½ 548 (600-1½)</td> <td>580-1½ 548 (600-1½)</td> </tr> <tr> <td>CIRCLING **</td> <td>580-1 548 (600-1)</td> <td>580-1½ 548 (600-1½)</td> <td>600-2 568 (600-2)</td> <td></td> </tr> <tr> <td colspan="5">DME or RADAR</td> </tr> <tr> <td>S-22L *</td> <td>440-¾ 408 (500-¾)</td> <td>440-1 408 (500-1)</td> <td>440-1¼ 408 (500-1¼)</td> <td></td> </tr> <tr> <td>CIRCLING **</td> <td>440-1 408 (500-1)</td> <td>500-1 468 (500-1)</td> <td>500-1½ 468 (500-1½)</td> <td>600-2 568 (600-2)</td> </tr> </tbody> </table>				CATEGORY	A	B	C	D	S-22L	580-¾ 548 (600-¾)	580-1¼ 548 (600-1¼)	580-1½ 548 (600-1½)	580-1½ 548 (600-1½)	CIRCLING **	580-1 548 (600-1)	580-1½ 548 (600-1½)	600-2 568 (600-2)		DME or RADAR					S-22L *	440-¾ 408 (500-¾)	440-1 408 (500-1)	440-1¼ 408 (500-1¼)		CIRCLING **	440-1 408 (500-1)	500-1 468 (500-1)	500-1½ 468 (500-1½)	600-2 568 (600-2)
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DME or RADAR																																	
S-22L *	440-¾ 408 (500-¾)	440-1 408 (500-1)	440-1¼ 408 (500-1¼)																														
CIRCLING **	440-1 408 (500-1)	500-1 468 (500-1)	500-1½ 468 (500-1½)	600-2 568 (600-2)																													
HIRL Rwy 4R-22L		MIRL Rwy 4L-22R																															
FAF to MAP 4.3 NM																																	
Knots		Min:Sec																															
60	90	120	150																														
4:18	2:52	2:09	1:43																														

LOS ALAMITOS, CALIFORNIA 33°47'N-118°03'W LOS ALAMITOS AAF (KSLI)

## VOR or TACAN RWY 22L

Amdt 7 10266