PRACTICE EXAM 21 SIMULATION

1. On a primary flight display (PFD), a symbol overlaid on the attitude display shows the actual path the aircraft is traveling through the air, accounting for wind and angle of attack. What is this symbol called?

A. The selected course pointer the pilot sets for the desired track inbound

B. The flight path marker indicating where the aircraft is actually going

C. The heading bug the pilot sets for the autopilot to steer the aircraft toward

D. The vertical deviation indicator showing displacement from the glidepath

2. A glass-cockpit PFD presents airspeed on a vertical tape. The colored band along this tape that indicates the normal operating range is what color?

A. The yellow band indicates the normal operating speed range on the tape

B. The green band indicates the normal operating speed range on the tape

C. The red band indicates the normal operating speed range on the tape

D. The white band indicates the normal operating speed range on the tape

3. When a WAAS-enabled GPS provides an LPV approach, the vertical guidance is generated by what?

A. A ground-based glideslope transmitter co-located with the localizer antenna

B. The barometric altimeter feeding altitude data into the navigation computer

C. The aircraft's radio altimeter measuring height above the terrain directly

D. Satellite-based augmentation providing an angular glidepath to the runway

4. A pilot notices the GPS has transitioned from "enroute" to "terminal" mode. The CDI full-scale sensitivity has changed from 5.0 NM to what value?

A. The full-scale sensitivity changes to 0.3 nautical miles in terminal mode

B. The full-scale sensitivity changes to 1.0 nautical mile in terminal mode

C. The full-scale sensitivity changes to 2.0 nautical miles in terminal mode

D. The full-scale sensitivity remains at 5.0 nautical miles in terminal mode

5. On final approach with an LPV, the GPS CDI sensitivity becomes angular, similar to which conventional system?

A. The sensitivity becomes similar to a VOR receiver tracking a radial

B. The sensitivity becomes similar to an ADF tracking a relative bearing

C. The sensitivity becomes similar to an ILS localizer narrowing toward the runway

D. The sensitivity becomes similar to a DME measuring slant-range distance

6. A pilot must understand that RAIM stands for what in the context of GPS navigation?

A. It refers to the radio altimeter independent monitoring of terrain clearance

B. It refers to the range augmentation integrity method used in approach mode

C. It refers to receiver autonomous integrity monitoring of satellite signals

D. It refers to the required area inbound minimum for the approach segment

7. If a GPS receiver loses RAIM during an approach without WAAS, what is the appropriate pilot action?

A. Continue the approach using the last computed GPS position to the runway

B. Switch the GPS to enroute mode to restore the integrity monitoring function

C. Reduce groundspeed to allow the receiver to recompute the position solution

D. Discontinue the approach and execute the published missed approach procedure

8. A flight management system (FMS) sequences waypoints automatically in what mode of operation?

A. In the manual mode, where the pilot advances each waypoint individually

B. In the automatic leg-sequencing mode, where the FMS advances waypoints itself

C. In the heading-select mode, which overrides the programmed flight plan route

D. In the suspend mode, which holds the current waypoint until manually released

9. During a holding pattern flown with an FMS, the pilot may need to activate which function to prevent automatic waypoint sequencing?

A. The vectors-to-final function on the approach page of the navigation unit

B. The direct-to function, which resets the active waypoint to the present position

C. The OBS or hold mode, which sequences each waypoint automatically in turn

D. The suspend (SUSP) function, which stops the automatic waypoint sequencing

10. A pilot using an electronic horizontal situation indicator (HSI) on an MFD can typically overlay which additional information?

A. Weather radar, traffic, and terrain data can be overlaid on the moving map

B. Only the basic course deviation bar without any additional map information

C. The engine instrument readings displayed in place of the navigation map

D. The checklist pages that replace the navigation display during the approach

11. A pilot must understand that "RNP" (required navigation performance) differs from RNAV in that RNP adds what?

A. RNP adds a requirement for dual independent GPS receivers in all cases

B. RNP adds onboard performance monitoring and alerting of navigation accuracy

C. RNP adds a ground-based monitoring station at every approach airport

D. RNP adds a mandatory autopilot coupling for all approach procedures flown

12. An RNP approach with a designation of "RNP 0.3" indicates the aircraft must maintain its position within what lateral accuracy?

A. Within 0.3 nautical mile of the centerline for 95 percent of the flight time

B. Within 0.3 degrees of the final approach course at all times during the approach

C. Within 0.3 statute miles of the runway threshold during the final segment only

D. Within a 0.3 nautical mile altitude band above the published minimum altitude

13. A pilot loads an approach into the GPS and selects "vectors to final." What does this selection do?

A. It loads the full approach including all transitions and the procedure turn segment

B. It commands the autopilot to fly directly to the missed approach holding fix

C. It activates the holding pattern at the initial approach fix automatically on arrival

D. It removes the feeder routes and activates the final approach course for vectors

14. A pilot must recognize that a glass-cockpit "red X" over an instrument display indicates what?

A. The instrument or sensor data has failed and the display is unreliable

B. The instrument is operating in a degraded but still usable backup mode

C. The instrument is displaying a test pattern during the normal startup sequence

D. The instrument has been manually deselected by the pilot for decluttering

15. During a partial display failure in a glass cockpit, "reversionary mode" provides what capability?

A. It transfers all autopilot functions to a backup electrical bus automatically

B. It displays the engine parameters on the failed primary flight display screen

C. It consolidates the essential flight and engine data onto the operating display

D. It reverts the navigation source from GPS back to the ground-based VOR system

16. A pilot using an FMS must verify the navigation database currency because an expired database may do what?

A. It may prevent the autopilot from engaging in any lateral navigation mode

B. It may cause the display screens to fail during the approach phase of flight

C. It may contain outdated procedures, frequencies, or waypoints no longer valid

D. It may force the receiver into a permanent dead-reckoning navigation mode

17. A pilot flying an LNAV/VNAV approach receives vertical guidance derived from what source?

A. Barometric altitude providing a computed vertical path to the runway

B. The satellite-based augmentation system providing an angular glidepath

C. A ground-based glideslope transmitter aligned with the runway centerline

D. The radio altimeter measuring the precise height above the touchdown zone

18. A pilot must understand that the difference between LPV and LNAV/VNAV minimums is primarily what?

A. LPV provides lower minimums with tighter angular guidance than LNAV/VNAV

B. LNAV/VNAV always provides lower minimums than the LPV approach procedure

C. LPV requires a ground-based transmitter while LNAV/VNAV uses only satellites

D. LNAV/VNAV provides lateral guidance only with no vertical path computation

19. A pilot notices the autopilot in "NAV" mode is tracking the GPS course. To intercept and track an ILS instead, the pilot must do what?

A. Engage the altitude-hold mode to maintain the present altitude during tracking

B. Select the heading mode and fly the published missed approach course outbound

C. Tune and identify the ILS, set the CDI source to the localizer, then arm approach mode

D. Disengage the autopilot entirely and hand-fly the localizer to the runway threshold

20. A pilot must understand that the flight director command bars on a PFD show what?

A. The current actual pitch and bank attitude of the aircraft at that moment

B. The minimum and maximum operating speeds for the current configuration

C. The selected altitude and heading targets entered into the autopilot panel

D. The pitch and bank guidance the pilot or autopilot should follow to fly the path

21. A pilot transitioning to a glass cockpit must adapt the instrument scan because the integrated display does what compared to round-dial instruments?

A. It eliminates the need for any instrument cross-check during the approach phase

B. It requires a slower scan because all data appears on a single fixed gauge

C. It removes the attitude information from the primary field of view entirely

D. It consolidates attitude, airspeed, altitude, and heading into one field of view

22. A pilot using GPS for an approach must ensure the receiver is approved for what operation under the regulations?

A. The receiver must be approved for instrument approach operations under the TSO

B. The receiver must be approved only for enroute and terminal area navigation use

C. The receiver must be a handheld unit supplementing the panel-mounted equipment

D. The receiver must be approved exclusively for visual flight rules navigation only

23. A pilot flying with an air data computer (ADC) understands that it processes which inputs to drive the displays?

A. Pitot and static pressure plus temperature to compute airspeed and altitude

B. Satellite range signals and almanac data to compute the GPS position fix

C. Gyroscopic rate signals from the attitude and heading reference system unit

D. Magnetic flux and compass data to compute the aircraft's heading reference

24. An attitude and heading reference system (AHRS) replaces which traditional instruments in a glass cockpit?

A. The pitot-static airspeed indicator and the barometric altimeter instruments

B. The communication and navigation radios mounted in the avionics stack

C. The vacuum-driven attitude indicator and the gyroscopic heading indicator

D. The fuel quantity gauges and the engine manifold pressure indicator displays

25. A pilot must understand that selecting "direct-to" a waypoint on the GPS does what to the flight plan?

A. It deletes the entire flight plan and reverts the unit to dead reckoning navigation

B. It activates the holding pattern at the selected waypoint upon arrival overhead

C. It creates a direct course from the present position to the selected waypoint

D. It commands the autopilot to descend immediately to the waypoint crossing altitude

26. A pilot interpreting the trend vector on a glass-cockpit airspeed or altitude tape understands it shows what?

A. The predicted value in a set number of seconds based on the current rate of change

B. The maximum value the parameter has reached during the current flight phase

C. The minimum safe value below which an aural warning will sound immediately

D. The value selected by the pilot as the target for the autopilot to capture

27. A pilot must understand that GPS position accuracy is degraded by poor satellite geometry, expressed by which term?

A. A high dilution of precision value indicates poor satellite geometry and accuracy

B. A low signal-to-noise ratio value indicates the receiver antenna has failed

C. A high pseudorange residual value indicates a clock synchronization error onboard

D. A low almanac currency value indicates the satellite database has expired fully

28. A pilot flying an approach with vertical guidance from baro-VNAV must be aware that very cold temperatures can do what?

A. Cause the satellite signals to refract excessively, shifting the lateral course

B. Cause the computed vertical path to be lower than intended, reducing clearance

C. Cause the autopilot to disconnect automatically below the freezing level altitude

D. Cause the GPS to lose RAIM as the cold affects the receiver's internal clock

29. A pilot must understand that "TAWS" (terrain awareness and warning system) provides what function?

A. It provides traffic advisories and resolution guidance to avoid other aircraft nearby

B. It provides weather radar returns overlaid on the multifunction display moving map

C. It provides alerts of potential terrain or obstacle conflicts ahead of the aircraft

D. It provides automatic engine monitoring and failure prediction during the flight

30. A pilot using a moving map display must remember that the displayed information is only as reliable as what?

A. The strength of the radio signal received from the nearest ground navigation aid

B. The currency and accuracy of the underlying navigation database loaded in the unit

C. The brightness setting selected for the display in the current lighting conditions

D. The number of satellites in view above the local horizon at that exact moment

31. A pilot flying a coupled approach must monitor for "mode reversion," which occurs when what happens?

A. The pilot manually selects a different navigation source during the final approach

B. The autopilot drops from a captured mode to a default mode without pilot input

C. The flight director command bars are biased out of view by the pilot's selection

D. The navigation database automatically updates to the next published cycle in flight

32. A pilot must understand that an ADS-B Out system transmits what information?

A. It transmits only the aircraft's transponder code without any position data

B. It transmits weather and traffic information received from the ground stations

C. It transmits the aircraft's GPS position, altitude, and identification to ATC and others

D. It transmits the autopilot mode and flight plan to the air traffic control facility

33. A pilot receiving traffic information via ADS-B In sees a target displayed. This traffic data is provided through what service?

A. The mode-S transponder interrogation directly between the two aircraft involved

B. The traffic information service broadcast (TIS-B) and air-to-air ADS-B reception

C. The VOR ground station relaying the position of nearby transponder-equipped aircraft

D. The flight service station verbally relaying the traffic to the pilot over the radio

34. A pilot must understand that the magenta line on a GPS moving map represents what?

A. The selected heading the autopilot is currently flying toward the next fix

B. The active leg of the flight plan, the course the aircraft should currently follow

C. The course deviation from the intended track displayed in lateral nautical miles

D. The wind direction and velocity computed by the air data computer in real time

35. A pilot flying an RNAV approach must verify that the correct approach is loaded and that the waypoints match what?

A. The frequencies published on the approach chart for the ground navigation aids

B. The radar vectors that approach control intends to issue during the arrival sequence

C. The approach chart waypoint sequence, names, and the final approach course depicted

D. The minimum safe altitude circle radius depicted on the approach plate planview

36. A pilot must understand that "VNAV" path guidance computed by an FMS provides what?

A. A lateral course between waypoints to keep the aircraft on the airway centerline

B. A speed schedule that optimizes fuel burn during the enroute cruise phase only

C. A computed vertical descent path to meet altitude constraints at the waypoints

D. A wind correction angle automatically applied to maintain the desired ground track

37. A pilot using an electronic flight bag (EFB) for approach charts must ensure what regarding the charts displayed?

A. The EFB must be hardwired into the aircraft's primary electrical power bus

B. The charts must be current for the effective date and reflect the latest revisions

C. The EFB must be approved as a primary attitude reference for instrument flight

D. The charts must be printed as a paper backup before every instrument approach

38. A pilot flying with synthetic vision technology (SVT) on the PFD sees what depicted?

A. A computer-generated three-dimensional view of the terrain and obstacles ahead

B. A live camera feed of the actual outside view forward of the aircraft nose

C. The weather radar returns projected onto the attitude indicator background

D. The traffic targets rendered as solid aircraft shapes on the airspeed tape

39. A pilot must understand that GPS altitude differs from the altimeter's indicated altitude because GPS altitude is referenced to what?

A. The standard datum plane of 29.92 inches of mercury at all flight altitudes

B. A geometric reference ellipsoid rather than the local barometric pressure datum

C. The height above the nearest airport's published field elevation at the time

D. The pressure altitude corrected for the nonstandard temperature aloft only

40. A pilot must use the barometric altimeter, not GPS altitude, for vertical separation because what?

A. GPS altitude updates too slowly to be useful during a rapid descent maneuver

B. GPS altitude is intentionally degraded by the satellite operators for security reasons

C. GPS altitude is unavailable below 18,000 feet in most airspace environments

D. ATC separation and altitude assignments are based on barometric pressure altitude

41. A pilot programming a hold into the FMS at a fix must typically enter which parameters?

A. Only the fix name, with the FMS computing all other parameters automatically

B. The fuel reserve and the alternate airport for the lost-communications scenario

C. The maximum holding airspeed and the aircraft category for the protected airspace

D. The inbound course, turn direction, and leg length or time for the holding pattern

42. A pilot must understand that an "ILS critical area" affects glass-cockpit and conventional approaches alike by doing what?

A. It can cause signal interference if vehicles or aircraft enter it during the approach

B. It defines the minimum altitude the aircraft must maintain crossing the final fix

C. It marks the area where the autopilot must be disconnected before landing

D. It identifies the zone where the synthetic vision terrain data becomes unreliable

43. A pilot relying on an autopilot during an instrument approach must remember the autopilot does what regarding situational awareness?

A. It increases the pilot's situational awareness by handling all navigation tasks alone

B. It guarantees terrain and traffic separation throughout the entire approach procedure

C. It eliminates the need for the pilot to brief the approach before commencing it

D. It can reduce situational awareness if the pilot stops actively monitoring the flight

44. A pilot must understand that the term "LNAV" on an RNAV approach indicates what guidance is provided?

A. Lateral and vertical guidance equivalent to a precision ILS approach to the runway

B. Lateral navigation guidance only, with no vertical guidance to the runway

C. Vertical guidance only, requiring a separate source for the lateral course tracking

D. Angular guidance that narrows toward the runway like a localizer signal does

45. A pilot flying a glass-cockpit aircraft loses the AHRS. Which backup instrument typically remains for attitude reference?

A. The multifunction display automatically switches to show the lost attitude data

B. A standby attitude indicator, independently powered, provides backup attitude reference

C. The GPS moving map provides a computed attitude based on the ground track

D. The air data computer reconstructs the attitude from airspeed and altitude trends

46. A pilot must understand that "GPS spoofing or jamming" would most likely cause what symptom?

A. The barometric altimeter would freeze at the last valid altitude reading shown

B. The attitude indicator would slowly precess away from the true horizon line

C. The engine instruments would display erratic and fluctuating parameter readings

D. The GPS position would become unreliable, with possible loss of integrity or position

47. A pilot flying an approach must understand that the final approach fix on an RNAV approach is depicted by what symbol?

A. A solid black triangle marking the missed approach holding point on the chart

B. A four-pointed star or cross symbol identifying the named final approach waypoint

C. A circle with a cross indicating the visual descent point on the final segment

D. A feathered arrow showing the procedure turn direction at the intermediate fix

48. A pilot using autopilot in "approach" (APR) mode for an LPV expects the autopilot to do what?

A. Track the lateral course and follow the computed glidepath down to the minimums

B. Maintain only the lateral course while the pilot manually controls the descent rate

C. Level the aircraft at the final approach fix altitude until reaching the runway

D. Disconnect automatically at the final approach fix, requiring a hand-flown descent

49. A pilot must understand that "WAAS" improves basic GPS accuracy primarily by doing what?

A. Increasing the transmission power of the individual GPS satellites in orbit overhead

B. Adding more satellites to the constellation to improve the geometry over the region

C. Providing a faster receiver processor to compute the position solution more rapidly

D. Broadcasting correction and integrity data from ground stations via geostationary satellites

50. A pilot flying a coupled approach notices the aircraft is not following the glidepath despite "approach" mode being armed. The most likely cause is what?

A. The barometric altimeter setting was entered incorrectly before the approach began

B. The flight director command bars were manually biased out of the pilot's view

C. The heading bug was set to the wrong value for the final approach course inbound

D. The approach mode armed but never captured because intercept conditions were not met

51. A pilot must understand that the "minimums" annunciation on a glass-cockpit PFD is triggered by what?

A. The groundspeed dropping below the computed approach reference speed value

B. The autopilot reaching the end of the programmed lateral flight plan route

C. The aircraft descending to the pilot-set decision altitude or minimum descent altitude

D. The GPS losing the integrity monitoring required for the approach procedure flown

52. A pilot using the FMS must understand that a "discontinuity" in the flight plan indicates what?

A. A gap where the FMS cannot connect two legs and pilot action is required

B. A point where the autopilot will automatically enter a holding pattern to wait

C. A waypoint where the vertical path computation has been temporarily suspended

D. A frequency change required for the next communication sector along the route

53. A pilot must understand that flying an RNAV (RNP) AR approach requires what special authorization?

A. A simple logbook endorsement from any certificated flight instructor suffices fully

B. No special authorization beyond a standard instrument rating is ever required

C. A verbal briefing from air traffic control before each approach is conducted

D. Specific aircraft and aircrew authorization due to the tighter performance requirements

54. A pilot transitioning from automation to hand-flying in IMC must guard against what risk during the transition?

A. A startle and degraded scan as the pilot resumes manual control of the aircraft

B. An immediate loss of all electrical power to the flight instruments and displays

C. The automatic reversion of the navigation source to a ground-based VOR station

D. The flight director command bars disappearing permanently from the display screen

55. A pilot must understand that the "course pointer" on an electronic HSI is set to what?

A. The aircraft's current magnetic heading as sensed by the AHRS magnetometer unit

B. The wind direction computed and displayed by the air data computer in real time

C. The desired course or final approach course the pilot intends to track inbound

D. The bearing to the nearest airport stored in the navigation database for diversion

56. A pilot flying with autothrottle (where equipped) must understand the autothrottle controls what?

A. The aircraft's pitch attitude to maintain the selected vertical speed during climb

B. The lateral course tracking to keep the aircraft centered on the flight plan route

C. The engine thrust to maintain a selected speed or thrust setting during the flight

D. The flap and gear configuration changes during the approach and landing sequence

57. A pilot must understand that a "baro-aiding" GPS function uses the altimeter input to do what?

A. To replace the GPS vertical guidance entirely during the final approach segment

B. To correct the lateral course deviation for crosswind drift on the approach inbound

C. To set the decision altitude automatically based on the local pressure setting entered

D. To improve RAIM availability by substituting altitude for one satellite measurement

58. A pilot using the autopilot in "altitude preselect" must understand the aircraft will do what?

A. Climb or descend continuously without leveling off at any particular altitude value

B. Maintain the current altitude indefinitely regardless of the value that was selected

C. Capture and level off at the preselected altitude entered in the autopilot panel

D. Descend to the lowest minimum altitude published for the route segment being flown

59. A pilot must understand that an FMS-computed "top of descent" (TOD) point indicates what?

A. The point at which the aircraft should begin descent to meet the next altitude constraint

B. The point at which the aircraft has reached its maximum certified cruising altitude

C. The point at which the autopilot will automatically disconnect during the descent

D. The point at which the holding pattern should be entered before the approach begins

60. A pilot flying a modern integrated avionics suite must remember that automation dependency can lead to what if basic skills erode?

A. The autopilot refusing to engage until the pilot demonstrates manual proficiency first

B. The navigation database automatically locking out the advanced approach procedures

C. The flight director providing increasingly conservative guidance over time in flight

D. Difficulty safely hand-flying the aircraft when the automation fails or is disengaged

Answer Key

1. B. Flight path marker — The flight path marker (also called the flight path vector) shows the aircraft's actual trajectory through the air mass, displaced from the nose by the effects of wind and angle of attack. Defining it by function rather than its color or shape avoids the symbology differences between Garmin, Collins, and other avionics suites, making B unambiguously correct.

2. B. Green band — The green band on the airspeed tape marks the normal operating speed range.

3. D. Satellite augmentation — LPV vertical guidance comes from SBAS (WAAS), providing an angular glidepath to the runway.

4. B. 1.0 NM — In terminal mode, GPS CDI full-scale sensitivity is 1.0 NM (5.0 enroute, 0.3 approach).

5. C. Like an ILS localizer — On final, LPV sensitivity becomes angular, narrowing toward the runway like an ILS localizer.

6. C. Receiver Autonomous Integrity Monitoring — RAIM is receiver autonomous integrity monitoring of satellite signals.

7. D. Discontinue and go missed — Loss of RAIM on a non-WAAS approach requires discontinuing and executing the missed approach.

8. B. Automatic leg-sequencing — An FMS advances waypoints automatically in leg-sequencing mode.

9. D. SUSP function — The suspend (SUSP) function stops automatic waypoint sequencing during holds.

10. A. Weather, traffic, terrain — An electronic HSI/MFD can overlay weather radar, traffic, and terrain on the moving map.

11. B. Onboard monitoring/alerting — RNP adds onboard performance monitoring and alerting of navigation accuracy.

12. A. 0.3 NM, 95% — RNP 0.3 means staying within 0.3 NM of centerline at least 95% of the flight time.

13. D. Removes feeders, activates final — "Vectors to final" removes feeder routes and activates the final approach course for ATC vectors.

14. A. Sensor failed, unreliable — A red X indicates failed sensor/data; the display is unreliable.

15. C. Consolidates essential data — Reversionary mode consolidates essential flight and engine data onto the operating display.

16. C. Outdated procedures/waypoints — An expired database may contain outdated procedures, frequencies, or invalid waypoints.

17. A. Barometric VNAV — LNAV/VNAV vertical guidance is a baro-VNAV computed path to the runway.

18. A. LPV lower, tighter — LPV provides lower minimums with tighter angular guidance than LNAV/VNAV.

19. C. Tune/ID ILS, set LOC, arm — To switch from GPS to ILS: tune and identify the ILS, set CDI source to localizer, then arm approach mode.

20. D. Pitch/bank guidance to follow — Flight director command bars show the pitch and bank guidance to fly the desired path.

21. D. Consolidates into one view — A glass cockpit consolidates attitude, airspeed, altitude, and heading into one field of view.

22. A. TSO approved for approaches — The GPS receiver must be TSO-approved for instrument approach operations.

23. A. Pitot/static + temp — The air data computer processes pitot, static, and temperature inputs to compute airspeed and altitude.

24. C. Vacuum AI and HI — AHRS replaces the vacuum-driven attitude indicator and gyroscopic heading indicator.

25. C. Direct course from present position — "Direct-to" creates a direct course from the present position to the selected waypoint.

26. A. Predicted future value — The trend vector shows the predicted value a set number of seconds ahead based on current rate of change.

27. A. High DOP — Poor satellite geometry is expressed as a high dilution of precision (DOP).

28. B. Path lower, less clearance — In very cold temperatures, baro-VNAV computes a vertical path lower than intended, reducing obstacle clearance.

29. C. Terrain/obstacle alerts — TAWS provides alerts of potential terrain or obstacle conflicts ahead.

30. B. Database currency/accuracy — A moving map is only as reliable as the currency and accuracy of its navigation database.

31. B. Drops to default without input — Mode reversion is when the autopilot drops from a captured mode to a default mode without pilot input.

32. C. GPS position/altitude/ID — ADS-B Out transmits the aircraft's GPS position, altitude, and identification.

33. B. TIS-B and air-to-air — ADS-B In traffic is provided via TIS-B and direct air-to-air ADS-B reception.

34. B. Active leg course — The magenta line is the active leg of the flight plan — the course to currently follow.

35. C. Chart waypoint sequence — Verify the loaded approach matches the chart's waypoint sequence, names, and final approach course.

36. C. Vertical descent path — FMS VNAV provides a computed vertical descent path to meet waypoint altitude constraints.

37. B. Current for effective date — EFB charts must be current for the effective date and reflect the latest revisions.

38. A. 3D terrain view — Synthetic vision depicts a computer-generated 3D view of terrain and obstacles ahead.

39. B. Geometric ellipsoid — GPS altitude is referenced to a geometric reference ellipsoid, not barometric pressure.

40. D. ATC uses pressure altitude — Barometric altitude is used for separation because ATC altitude assignments are based on pressure altitude.

41. D. Course, direction, leg — FMS hold entry requires the inbound course, turn direction, and leg length or time.

42. A. Signal interference — An ILS critical area can cause signal interference if vehicles/aircraft enter it during an approach.

43. D. Reduces SA if unmonitored — The autopilot can reduce situational awareness if the pilot stops actively monitoring.

44. B. Lateral only — "LNAV" provides lateral navigation guidance only, with no vertical guidance.

45. B. Standby attitude indicator — An independently powered standby attitude indicator provides backup attitude reference if AHRS fails.

46. D. Unreliable position — GPS spoofing/jamming makes the GPS position unreliable, with possible loss of integrity or position.

47. B. Star/cross waypoint — The RNAV final approach fix is depicted by a four-pointed star/cross identifying the named waypoint.

48. A. Track course and glidepath — In APR mode for an LPV, the autopilot tracks the lateral course and follows the computed glidepath to minimums.

49. D. Ground corrections via satellites — WAAS broadcasts correction and integrity data from ground stations via geostationary satellites.

50. D. Armed but never captured — If "approach" mode armed but the aircraft doesn't follow the glidepath, intercept conditions for capture were likely not met.

51. C. At decision/minimum altitude — The "minimums" annunciation triggers when the aircraft descends to the pilot-set DA/MDA.

52. A. Gap needing pilot action — A flight-plan discontinuity is a gap the FMS cannot connect, requiring pilot action.

53. D. Special authorization — RNAV (RNP) AR approaches require specific aircraft and aircrew authorization due to tighter performance requirements.

54. A. Startle and degraded scan — Transitioning from automation to hand-flying risks startle and a degraded scan as manual control resumes.

55. C. Desired/final course — The electronic HSI course pointer is set to the desired course or final approach course to track.

56. C. Engine thrust for speed — Autothrottle controls engine thrust to maintain a selected speed or thrust setting.

57. D. Improves RAIM — Baro-aiding uses altimeter input to substitute for one satellite measurement, improving RAIM availability.

58. C. Capture and level off — Altitude preselect commands the aircraft to capture and level off at the preselected altitude.

59. A. Begin descent point — The FMS top-of-descent point indicates where to begin descent to meet the next altitude constraint.

60. D. Hard to hand-fly — Automation dependency, with eroded basic skills, leads to difficulty safely hand-flying when automation fails.