

PRACTICE EXAM 25 SIMULATION

1. A METAR is a report of:

- A. Forecast weather for a terminal
- B. Winds and temperatures aloft
- C. An area forecast
- D. Observed surface weather conditions at an airport

2. The "TAF" product provides a:

- A. Surface observation
- B. Pilot report
- C. Terminal aerodrome forecast for an airport
- D. Winds aloft forecast

3. In a METAR, the wind entry "24015G25KT" indicates wind from:

- A. 150 degrees at 24 knots
- B. 25 degrees at 15 knots
- C. 240 degrees at 15 knots gusting 25
- D. 240 degrees at 25 knots steady

4. In a METAR, visibility reported as "3SM" means:

- A. 3 kilometers
- B. 3 nautical miles

C. 300 feet

D. 3 statute miles

5. In a METAR, the sky condition "OVC008" means:

A. Scattered clouds at 8,000 feet

B. Few clouds at 800 feet

C. Broken clouds at 8,000 feet

D. Overcast at 800 feet

6. In a METAR, "BKN" stands for a sky cover of:

A. Clear

B. Few

C. Broken

D. Overcast

7. A ceiling is defined as the lowest layer aloft reported as:

A. Few or scattered

B. Clear

C. Any cloud layer

D. Broken, overcast, or vertical visibility

8. In a METAR, temperature and dew point "15/12" are reported in:

A. Fahrenheit

B. Kelvin

- C. Tenths of a degree
- D. Degrees Celsius

9. The altimeter setting in a U.S. METAR, "A2992," means:

- A. 2,992 feet
- B. 29.92 millibars
- C. 29.92 inches of mercury
- D. 2992 hectopascals

10. A close temperature-dew point spread in a METAR indicates:

- A. Clear skies likely
- B. High winds
- C. Possible fog or low cloud formation
- D. Thunderstorms

11. A TAF "FM" (FROM) group indicates:

- A. A rapid, significant change to conditions beginning at the stated time
- B. A pilot report
- C. A surface observation
- D. The winds aloft

12. A TAF "TEMPO" group indicates:

- A. A permanent change
- B. Temporary fluctuations expected to last less than an hour at a time

- C. The valid period
- D. A wind shift only

13. A TAF "PROB30" group indicates:

- A. A 30-knot wind
- B. A 30-mile visibility
- C. A 30-degree wind shift
- D. A 30 percent probability of the stated conditions

14. A PIREP (pilot report) is valuable because it provides:

- A. Actual conditions observed by a pilot in flight, such as turbulence or icing
- B. A surface observation only
- C. The winds aloft forecast
- D. The terminal forecast

15. A PIREP coded "UA" is a:

- A. Urgent PIREP
- B. Routine PIREP
- C. Surface report
- D. Terminal forecast

16. A PIREP coded "UUA" is an:

- A. Routine PIREP
- B. Surface observation

- C. Urgent PIREP (e.g., severe turbulence or icing)
- D. Winds aloft report

17. An AIRMET is issued for weather hazards that are:

- A. Severe and affecting only large aircraft
- B. Significant but generally less severe, affecting a wide area
- C. Only thunderstorms
- D. Only volcanic ash

18. AIRMET Sierra concerns:

- A. Turbulence
- B. Icing
- C. Strong winds
- D. IFR conditions and mountain obscuration

19. AIRMET Tango concerns:

- A. Icing
- B. Turbulence and strong surface winds
- C. IFR conditions
- D. Volcanic ash

20. AIRMET Zulu concerns:

- A. Turbulence
- B. Icing and freezing levels

- C. IFR conditions
- D. Strong winds

21. A SIGMET is issued for:

- A. Severe weather hazardous to all aircraft, such as severe turbulence or icing
- B. Routine conditions
- C. Light turbulence only
- D. Surface winds only

22. A Convective SIGMET is issued for:

- A. Icing only
- B. Mountain obscuration
- C. Light turbulence
- D. Thunderstorm-related hazards such as severe thunderstorms, embedded storms, or tornadoes

23. A Convective SIGMET implies the presence of:

- A. Severe or greater turbulence, severe icing, and low-level wind shear
- B. Light winds
- C. Clear skies
- D. Only fog

24. The Winds and Temperatures Aloft Forecast (FB) provides forecast winds and temperatures at:

- A. The surface only
- B. Specified altitudes

- C. The destination only
- D. Cloud tops only

25. In a winds aloft forecast, the coded group "9900" indicates:

- A. Light and variable winds
- B. 99 knots
- C. 9,900 feet
- D. Calm with no temperature

26. In a winds and temperatures aloft forecast, no temperature is forecast for any level within how many feet of the station elevation?

- A. 1,000 feet
- B. 1,500 feet
- C. 2,000 feet
- D. 2,500 feet

27. A winds aloft entry "2435-04" means wind from 240 degrees at 35 knots and a temperature of:

- A. Plus 4 degrees Celsius
- B. 40 degrees
- C. Minus 40 degrees
- D. Minus 4 degrees Celsius

28. A surface analysis chart depicts:

- A. Observed surface pressure systems, fronts, and weather
- B. Winds aloft only

- C. The terminal forecast
- D. Satellite imagery only

29. A prog (prognostic) chart provides a:

- A. Surface observation
- B. Forecast of future weather conditions
- C. Pilot report
- D. Current radar image

30. Weather radar imagery primarily depicts:

- A. Cloud temperature
- B. Surface winds
- C. Precipitation intensity and movement
- D. The freezing level

31. Satellite imagery in the infrared (IR) mode primarily shows:

- A. Cloud-top temperatures (and thus heights)
- B. Precipitation only
- C. Surface winds
- D. The altimeter setting

32. The Aviation Weather Center (AWC) is the primary source for:

- A. Aviation weather products and forecasts online
- B. Air traffic control

- C. NOTAMs only
- D. Flight plans

33. A standard weather briefing provides:

- A. Only the current conditions
- B. A complete weather picture for the route and time of flight
- C. Only the forecast
- D. Only NOTAMs

34. An abbreviated weather briefing is requested when the pilot:

- A. Needs specific items or to update a previous briefing
- B. Has no information
- C. Wants the full briefing
- D. Is flying VFR only

35. An outlook briefing is appropriate when the departure is:

- A. Within one hour
- B. Immediate
- C. In progress
- D. Six or more hours away

36. A pilot decoding a METAR sees "FG." This indicates:

- A. Light rain
- B. Snow

- C. Fog
- D. Haze

37. In a METAR, "BR" indicates:

- A. Rain
- B. Snow
- C. Mist
- D. Thunderstorm

38. In a METAR, the present-weather code "TSRA" indicates:

- A. Snow showers
- B. Freezing rain
- C. Light drizzle
- D. Thunderstorm with rain

39. In a METAR, "-RA" indicates:

- A. Heavy rain
- B. Moderate rain
- C. Rain shower
- D. Light rain

40. A TAF's valid period is typically:

- A. 24 or 30 hours
- B. 6 hours

- C. 12 hours
- D. 48 hours always

41. A pilot planning a flight should review the TAF to determine:

- A. Forecast conditions at the destination around the ETA
- B. The current surface observation only
- C. The winds aloft only
- D. The radar image only

42. A METAR with "VV002" indicates:

- A. Visibility 2 miles
- B. Variable winds
- C. A scattered layer
- D. Vertical visibility of 200 feet (indefinite ceiling)

43. Low-level wind shear is a hazard that may be reported in a:

- A. Winds aloft forecast only
- B. PIREP, AIRMET, or via LLWAS/terminal systems
- C. Surface analysis only
- D. Satellite image only

44. The Graphical Forecasts for Aviation (GFA) tool provides:

- A. A graphical depiction of current and forecast weather across the continental U.S.
- B. A single airport observation

- C. A flight plan
- D. ATC frequencies

45. A pilot encountering an embedded thunderstorm forecast should expect storms that are:

- A. Visible and easily avoided
- B. Only at night
- C. Obscured within other clouds and difficult to see
- D. Always dissipating

46. A Center Weather Advisory (CWA) is an:

- A. Long-range outlook
- B. Annual summary
- C. Unscheduled in-flight advisory for conditions affecting a center's airspace
- D. Surface observation

47. Icing reported in a PIREP as "rime ice" forms when:

- A. Small supercooled droplets freeze rapidly, trapping air, on the airframe
- B. Large droplets spread before freezing
- C. The temperature is above freezing
- D. There is no moisture

48. Clear ice, the more hazardous type, forms when:

- A. Large supercooled droplets flow back and freeze into a smooth, heavy, hard layer
- B. Small droplets freeze instantly

- C. The air is dry
- D. The temperature is well above freezing

49. A pilot should obtain weather from official sources because they are:

- A. Faster only
- B. Free only
- C. Easier to read only
- D. Authoritative, current, and aviation-specific

50. A METAR is normally issued:

- A. Once daily
- B. Hourly (with special reports as conditions change)
- C. Every 6 hours
- D. Only when requested

51. A SPECI is a:

- A. Special METAR issued when conditions change significantly between routine reports
- B. Terminal forecast
- C. Winds aloft report
- D. Pilot report

52. A pilot interpreting a TAF "BECMG" group understands a:

- A. Sudden change
- B. Temporary fluctuation

- C. Probability group
- D. Gradual change to the stated conditions over a period

53. The freezing level information important for icing is found in:

- A. The surface analysis only
- B. AIRMET Zulu and freezing-level charts/products
- C. The METAR only
- D. The winds aloft only (without temperature)

54. A pilot reviewing weather for icing potential combines the freezing level with:

- A. The surface wind only
- B. Visible moisture and cloud layers
- C. The altimeter setting
- D. The runway length

55. The most hazardous convective weather product, implying severe conditions, is the:

- A. AIRMET Tango
- B. Routine PIREP
- C. Convective SIGMET
- D. Surface analysis

56. A pilot encountering conditions worse than forecast should:

- A. Continue regardless
- B. Ignore the discrepancy

- C. File a PIREP to update other pilots and ATC
- D. Cancel the weather briefing

57. A pilot reads a METAR "BKN015 OVC025." The ceiling is at:

- A. 2,500 feet (the overcast)
- B. 1,500 feet (the lowest broken layer)
- C. 1,500 and 2,500 averaged
- D. The surface

58. Winds aloft forecasts are not provided for levels below:

- A. About 1,500 feet AGL
- B. 5,000 feet
- C. 10,000 feet
- D. 18,000 feet

59. A pilot integrating weather products for a go/no-go decision should:

- A. Use only the METAR
- B. Combine METARs, TAFs, winds aloft, AIRMETs/SIGMETs, PIREPs, and graphical products
- C. Use only the radar
- D. Use only the PIREP

60. The fundamental purpose of reviewing the full suite of aviation weather products is to:

- A. Satisfy a regulation only
- B. Reduce fuel

- C. Build a complete and current weather picture for a safe flight decision
- D. Increase speed

Answer Key

1. D — A METAR is a report of observed surface weather conditions at an airport. It reflects actual conditions, not a forecast.
2. C — A TAF is a terminal aerodrome forecast for an airport. It forecasts conditions within a radius of the field.
3. C — "24015G25KT" is wind from 240 degrees at 15 knots gusting to 25. The "G" denotes the gust.
4. D — "3SM" means 3 statute miles of visibility. U.S. METAR visibility is in statute miles.
5. D — "OVC008" means overcast at 800 feet. The height is in hundreds of feet.
6. C — "BKN" stands for broken. It denotes 5/8 to 7/8 sky cover.
7. D — A ceiling is the lowest layer reported as broken, overcast, or vertical visibility. Few and scattered layers are not ceilings.
8. D — Temperature and dew point "15/12" are in degrees Celsius. METAR temperatures use Celsius.
9. C — "A2992" means an altimeter setting of 29.92 inches of mercury. The "A" prefix denotes inches of mercury.
10. C — A close temperature-dew point spread indicates possible fog or low cloud formation. The air is near saturation.
11. A — A TAF "FM" group indicates a rapid, significant change beginning at the stated time. It marks a new set of prevailing conditions.

12. B — A TAF "TEMPO" group indicates temporary fluctuations expected to last less than an hour at a time. The base conditions resume between fluctuations.

13. D — "PROB30" indicates a 30 percent probability of the stated conditions. It conveys forecast uncertainty.

14. A — A PIREP provides actual conditions observed by a pilot in flight, such as turbulence or icing. It is real-time, in-flight data.

15. B — A PIREP coded "UA" is a routine pilot report. The urgent type is coded "UUA."

16. C — A PIREP coded "UUA" is an urgent PIREP, such as severe turbulence or icing. The double-U denotes urgency.

17. B — An AIRMET is issued for significant but generally less severe weather affecting a wide area. SIGMETs cover the more severe hazards.

18. D — AIRMET Sierra concerns IFR conditions and mountain obscuration. It addresses ceilings, visibility, and obscured terrain.

19. B — AIRMET Tango concerns turbulence and strong surface winds. It covers moderate turbulence and sustained strong winds.

20. B — AIRMET Zulu concerns icing and freezing levels. It addresses moderate icing and the freezing level.

21. A — A SIGMET is issued for severe weather hazardous to all aircraft, such as severe turbulence or icing. It is more severe than an AIRMET.

22. D — A Convective SIGMET is issued for thunderstorm-related hazards such as severe thunderstorms, embedded storms, or tornadoes. It addresses convective activity.

23. A — A Convective SIGMET implies severe or greater turbulence, severe icing, and low-level wind shear. These hazards accompany the convection.

24. B — The Winds and Temperatures Aloft Forecast (FB) provides forecast winds and temperatures at specified altitudes. It supports altitude and route planning.

25. A — The coded group "9900" indicates light and variable winds. It is the standard code for calm or variable.

26. D — Winds aloft temperatures are not forecast for any level within 2,500 feet of the station elevation. The near-surface levels carry a wind forecast but no temperature.

27. D — "2435-04" means wind from 240 degrees at 35 knots and a temperature of minus 4 degrees Celsius. Above 24,000 feet the minus sign is omitted, but here it is shown.

28. A — A surface analysis chart depicts observed surface pressure systems, fronts, and weather. It shows the current synoptic picture.

29. B — A prog chart provides a forecast of future weather conditions. It projects the weather forward in time.

30. C — Weather radar imagery primarily depicts precipitation intensity and movement. It shows where and how heavily precipitation is falling.

31. A — Infrared satellite imagery primarily shows cloud-top temperatures, and thus heights. Colder, higher tops appear distinctly.

32. A — The Aviation Weather Center is the primary source for aviation weather products and forecasts online. It consolidates the official products.

33. B — A standard weather briefing provides a complete weather picture for the route and time of flight. It is the most thorough briefing.

34. A — An abbreviated briefing is requested when the pilot needs specific items or to update a previous briefing. It supplements rather than replaces a standard briefing.
35. D — An outlook briefing is appropriate when the departure is six or more hours away. It gives a general forecast for planning.
36. C — In a METAR, "FG" indicates fog. Fog reduces visibility near the surface.
37. C — "BR" indicates mist. It is a lesser obscuration than fog.
38. D — "TSRA" indicates a thunderstorm with rain. "TS" is thunderstorm and "RA" is rain.
39. D — "-RA" indicates light rain. The minus sign denotes light intensity.
40. A — A TAF's valid period is typically 24 or 30 hours. It is issued four times daily.
41. A — A pilot reviews the TAF to determine forecast conditions at the destination around the ETA. The forecast supports the arrival plan.
42. D — "VV002" indicates a vertical visibility of 200 feet, an indefinite ceiling. The sky is obscured with limited vertical visibility.
43. B — Low-level wind shear may be reported in a PIREP, AIRMET, or via LLWAS/terminal systems. Multiple sources convey shear hazards.
44. A — The Graphical Forecasts for Aviation (GFA) tool provides a graphical depiction of current and forecast weather across the continental U.S. It replaced the textual area forecast.
45. C — An embedded thunderstorm is obscured within other clouds and difficult to see. This makes visual avoidance hard, raising the hazard.

46. C — A Center Weather Advisory (CWA) is an unscheduled in-flight advisory for conditions affecting a center's airspace. It supplements AIRMETs and SIGMETs.

47. A — Rime ice forms when small supercooled droplets freeze rapidly, trapping air, on the airframe. It is rough and opaque.

48. A — Clear ice forms when large supercooled droplets flow back and freeze into a smooth, heavy, hard layer. It is the more hazardous type.

49. D — Official weather sources are authoritative, current, and aviation-specific. They provide reliable data for flight decisions.

50. B — A METAR is normally issued hourly, with special reports (SPECI) as conditions change. It is the routine surface observation.

51. A — A SPECI is a special METAR issued when conditions change significantly between routine reports. It captures rapid changes.

52. D — A TAF "BECMG" group indicates a gradual change to the stated conditions over a period. The change occurs over a span of time.

53. B — Freezing-level information for icing is found in AIRMET Zulu and freezing-level charts/products. These address the icing environment.

54. B — A pilot assesses icing potential by combining the freezing level with visible moisture and cloud layers. Icing requires both freezing temperatures and moisture.

55. C — The most hazardous convective product, implying severe conditions, is the Convective SIGMET. It denotes severe thunderstorm hazards.

56. C — Encountering conditions worse than forecast, the pilot should file a PIREP to update other pilots and ATC. PIREPs improve the shared weather picture.

57. B — With "BKN015 OVC025," the ceiling is the lowest broken or overcast layer, 1,500 feet. The broken layer at 1,500 is the ceiling.

58. A — Winds aloft forecasts are not provided for levels below about 1,500 feet AGL. The lowest forecast level is above the station.

59. B — A go/no-go decision combines METARs, TAFs, winds aloft, AIRMETs/SIGMETs, PIREPs, and graphical products. The full suite builds the complete picture.

60. C — The fundamental purpose of reviewing the full suite of products is to build a complete and current weather picture for a safe flight decision. Integrated weather supports sound judgment.