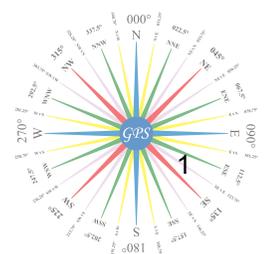
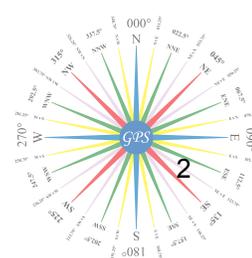


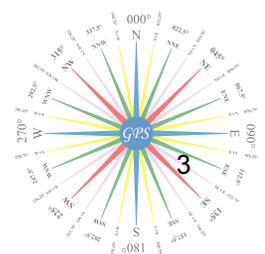
- 1 251 Ref: Meteo, Air Mass D
 Air masses near the earth's surface _____.
 A. move from areas of high pressure to areas of low pressure
 B. are deflected by the earth's rotation in both hemispheres
 C. are deflected by the "Coriolis effect"
 D. All of the above
- 2 804 Ref: Meteo, Air Mass, Character B
 Temperature and moisture characteristics are modified in a warm or cold air mass due to _____.
 A. pressure changes in the air mass C. the heterogeneous nature of the air mass
 B. movement of the air mass D. upper level atmospheric changes
- 3 860 Ref: Meteo, Air Mass, Climate D
 The climate of the eastern Gulf coast _____.
 A. is humid and subtropical throughout the year C. has a Mediterranean type of climate
 B. has an east coast marine type of climate D. varies from warm to subtropical
- 4 861 Ref: Meteo, Air Mass, Climate C
 The climate of the northern Gulf coast _____.
 A. is humid and subtropical throughout the year C. is a warm marine type of climate
 B. has an east coast marine type of climate D. varies from warm to subtropical
- 5 469 Ref: Meteo, Air Mass, Hot B
 Hot air can hold _____.
 A. less moisture than cold air C. the same amount of moisture as cold air
 B. more moisture than cold air D. moisture independent of air temperature
- 6 262 Ref: Meteo, Air Mass, Polar B
 An air mass that has moved down from Canada would most likely have the symbols _____.
 A. mPk C. cTk
 B. cPk D. cTw
- 7 306 Ref: Meteo, Air Mass, Relative Humidity D
 As the temperature for a given mass of air increases, the _____.
 A. dew point increases C. relative humidity increases
 B. dew point decreases D. relative humidity decreases
- 8 307 Ref: Meteo, Air Mass, Relative Humidity B
 As the temperature of an air mass decreases, the _____.
 A. absolute humidity decreases C. specific humidity decreases
 B. relative humidity increases D. dew point rises
- 9 252 Ref: Meteo, Air Mass, Temperature D
 Air temperature varies with _____.
 A. the altitude above sea level
 B. the season of the year
 C. the latitude or distance from the equator
 D. All of the above
- 10 178 Ref: Meteo, Air Mass, Warm B
 A source of an air mass labeled mTw is _____.
 A. the equator
 B. the Gulf of Mexico
 C. Alaska
 D. Canada



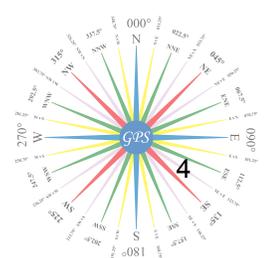
- 11 230 Ref: Meteo, Air Mass, Warm A
 A warm air mass is characterized by _____.
 A. stability C. gusty winds
 B. instability D. good visibility
- 12 261 Ref: Meteo, Air Mass, Warm B
 An air mass is termed "warm" if _____.
 A. it is above 70°F
 B. the ground over which it moves is cooler than the air
 C. it originated in a high pressure area
 D. it originated in a low pressure area
- 13 1352 Ref: Meteo, Air Mass, Warm B
 Warm air masses will generally have _____.
 A. turbulence within the mass C. heavy precipitation
 B. stratiform clouds D. good visibility
- 14 1737 Ref: Meteo, Air Mass, Warm D
 Which of the listed properties does warm air possess?
 A. It rises above cooler air and cools as it rises.
 B. Atmospheric pressure drops as warm air rises.
 C. Moisture in warm air condenses as the air is cooled.
 D. All of the above
- 15 1384 Ref: Meteo, Buys Ballot A
 What enables you to estimate the bearing of a storm's center?
 A. Buys Ballot's Law C. Pascal's Law
 B. An educated guess D. The left-hand rule
- 16 242 Ref: Meteo, Buys Ballot, North D
 According to Buys Ballot's law, when an observer in the Northern Hemisphere experiences a northeast wind the center of low pressure is located to the _____.
 A. northeast C. northwest
 B. west-southwest D. south-southeast
- 17 243 Ref: Meteo, Buys Ballot, North A
 According to Buys Ballot's law, when an observer in the Northern Hemisphere experiences a northwest wind, the center of low pressure is located to the _____.
 A. northeast C. northwest
 B. west-southwest D. south-southeast
- 18 490 Ref: Meteo, Buys Ballot, North B
 If an observer in the Northern Hemisphere faces the surface wind, the center of low pressure is to his _____.
 A. left, slightly behind him C. left, slightly in front of him
 B. right, slightly behind him D. right, slightly in front of him
- 19 1989 Ref: Meteo, Buys Ballot, North D
 You are steaming eastward in the North Atlantic in an extratropical cyclonic storm and the wind is dead ahead. According to the law of Buys Ballot, the center of the low pressure lies _____.
 A. ahead of you C. to the north
 B. astern of you D. to the south
- 20 1994 Ref: Meteo, Buys Ballot, North A
 You are steaming west in the North Atlantic in an extratropical cyclonic storm, and the wind is dead ahead. According to the law of Buys Ballot, the center of low pressure lies to the _____.
 A. north C. east
 B. south D. west



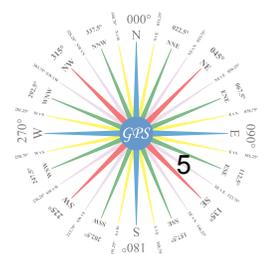
- 21 244 Ref: Meteo, Buys Ballot, South B
 According to Buys Ballot's Law, when an observer in the Southern Hemisphere experiences a northwest wind, the center of the low pressure is located to the _____.
 A. east-northeast C. east-southeast
 B. south-southwest D. west-southwest
- 22 1995 Ref: Meteo, Buys Ballot, South B
 You are steaming west in the South Atlantic in an extratropical cyclonic storm, and the wind is dead ahead. According to the law of Buys Ballot, the center of low pressure lies _____.
 A. to the north of you C. dead ahead of you
 B. to the south of you D. dead astern of you
- 23 377 Ref: Meteo, Cloud A
 Cloud formations are minimal when the _____.
 A. surface temperature and temperature aloft are equal
 B. surface temperature and temperature aloft differ greatly
 C. barometric pressure is very low
 D. relative humidity is very high
- 24 378 Ref: Meteo, Cloud C
 Clouds are classified according to their _____.
 A. size C. altitude and how they were formed
 B. moisture content D. location in a front
- 25 260 Ref: Meteo, Cloud, Altocumulus B
 Altocumulus clouds are defined as _____.
 A. high clouds C. low clouds
 B. middle clouds D. vertical development clouds
- 26 1507 Ref: Meteo, Cloud, Altocumulus D039NG C
 What type of cloud is indicated by the number 5 in illustration D039NG?
 A. Cirrostratus C. Altocumulus
 B. Cirrocumulus D. Nimbostratus
- 27 1339 Ref: Meteo, Cloud, Altostratus A
 Uniform, grayish-white cloud sheets that cover large portions of the sky, and are responsible for a large percentage of the precipitation in the temperate latitudes, are called _____.
 A. altostratus C. cirrostratus
 B. altocumulus D. cirrocumulus
- 28 1792 Ref: Meteo, Cloud, Altostratus B
 Which type of cloud is among the most dependable for giving an indication of an approaching weather system?
 A. Cumulus C. Cumulostratus
 B. Altostratus D. Nimbus
- 29 1795 Ref: Meteo, Cloud, Altostratus D039NG D
 Which type of cloud is indicated by the number 4?
 A. Altocumulus C. Cumulus
 B. Cirrostratus D. Altostratus
- 30 539 Ref: Meteo, Cloud, Atoll A
 In many areas "atoll" clouds (clouds of vertical development) are produced over small islands. These are the result of _____.
 A. rising air currents produced by the warm islands
 B. warm air from the sea rising over higher land areas
 C. cool land air mixing with warm sea air
 D. descending air over the islands



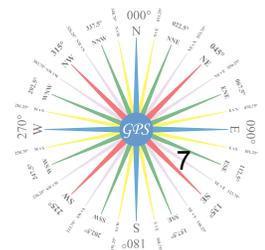
- 31 468 Ref: Meteo, Cloud, Cirrocumulus B
 High clouds, composed of small white flakes or scaly globular masses, and often banded together to form a "mackerel sky", would be classified as _____.
 A. cirrus C. altostratus
 B. cirrocumulus D. cumulonimbus
- 32 963 Ref: Meteo, Cloud, Cirrocumulus C
 The form of cloud often known as "mackerel sky" which is generally associated with fair weather is _____.
 A. nimbostratus C. cirrocumulus
 B. stratus D. cumulonimbus
- 33 1664 Ref: Meteo, Cloud, Cirrostratus A
 Which cloud commonly produces a halo about the Sun or Moon?
 A. Cirrostratus C. Altostratus
 B. Cirrocumulus D. Altocumulus
- 34 193 Ref: Meteo, Cloud, Cirrus D
 A thin, whitish, high cloud popularly known as "mares' tails" is _____.
 A. altostratus C. cumulus
 B. stratus D. cirrus
- 35 370 Ref: Meteo, Cloud, Cirrus A
 Cirrus clouds are composed primarily of _____.
 A. ice crystals C. snow crystals
 B. water droplets D. nitrogen
- 36 371 Ref: Meteo, Cloud, Cirrus D039NG A
 Cirrus clouds are indicated by which number?
 A. 1 C. 5
 B. 4 D. 7
- 37 1793 Ref: Meteo, Cloud, Cirrus B
 Which type of cloud is composed entirely of ice crystals and is found at very high altitudes?
 A. Cumulus C. Stratus
 B. Cirrus D. Nimbostratus
- 38 1794 Ref: Meteo, Cloud, Cirrus D039NG A
 Which type of cloud is indicated by the number 1?
 A. Cirrus C. Altocumulus
 B. Altostratus D. Nimbostratus
- 39 1803 Ref: Meteo, Cloud, Cirrus A
 Which type of weather could you expect soon after seeing "hook" or "comma" shaped cirrus clouds?
 A. Rain with the approach of a warm front C. Continuing fog and rain
 B. Clearing with the approach of a cold front D. The formation of a tropical depression
- 40 2 Ref: Meteo, Cloud, Cumulonimbus D
 A cloud of marked vertical development (often anvil-shaped) would be classified as _____.
 A. cirrus C. altocumulus
 B. cirrocumulus D. cumulonimbus
- 41 255 Ref: Meteo, Cloud, Cumulonimbus A
 All of the following are associated with cumulonimbus clouds EXCEPT _____.
 A. steady rainfall C. thunderstorms
 B. hail storms D. tornadoes or waterspouts



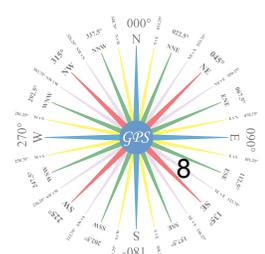
- 42 390 Ref: Meteo, Cloud, Cumulonimbus A
 Cumulonimbus clouds are formed by _____.
 A. vertical air movements C. horizontal air movements
 B. heavy rainstorms D. any movement of moist air
- 43 392 Ref: Meteo, Cloud, Cumulonimbus B
 Cumulonimbus clouds can produce _____.
 A. dense fog and high humidity
 B. gusty winds, thunder, rain or hail, and lightning
 C. clear skies with the approach of a cold front
 D. a rapid drop in barometric pressure followed by darkness
- 44 393 Ref: Meteo, Cloud, Cumulonimbus C
 Cumulus clouds that have undergone vertical development and have become cumulonimbus in form, indicate _____.
 A. clearing weather C. probable thunderstorm activity
 B. that a warm front has passed D. an approaching hurricane or typhoon
- 45 453 Ref: Meteo, Cloud, Cumulonimbus C
 From which type of cloud can a tornado or waterspout develop?
 A. Nimbostratus C. Cumulonimbus
 B. Altostratus D. Cirrus
- 46 709 Ref: Meteo, Cloud, Cumulonimbus A
 On a clear, warm day, you notice the approach of a tall cumulus cloud. The cloud top has hard well defined edges and rain is falling from the dark lower edge. Should this cloud pass directly overhead _____.
 A. it will be preceded by a sudden increase in wind speed
 B. it will be preceded by a sudden decrease in wind speed
 C. the wind speed will not change as it passes
 D. the wind will back rapidly to left in a counterclockwise direction as it passes
- 47 1665 Ref: Meteo, Cloud, Cumulonimbus D
 Which cloud type is normally associated with thunderstorms?
 A. Cirrus C. Cumulus
 B. Stratus D. Cumulonimbus
- 48 1791 Ref: Meteo, Cloud, Cumulonimbus D
 Which type of cloud formation should be of immediate concern to small craft operators?
 A. cirrus C. nimbostratus
 B. altostratus D. cumulonimbus
- 49 1796 Ref: Meteo, Cloud, Cumulonimbus A
 Which type of cloud is the classic "thunderhead"?
 A. Cumulonimbus
 B. Stratus
 C. Cirrus
 D. Altostratus
- 50 170 Ref: Meteo, Cloud, Cumulus D
 A sign of thunderstorm development is a cumulus cloud _____.
 A. darkening, growing in size and forming an anvil top
 B. that shows extensive vertical development
 C. creating cold downdrafts that are felt on the ground
 D. All of the above



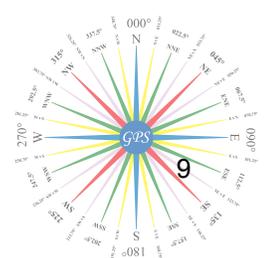
- 61 209 Ref: Meteo, Definition, Cats Paw A very light breeze that causes ripples on a small area of still water is a _____.
 A. cat's paw C. williwaw
 B. hog's breath D. chinook A
- 62 379 Ref: Meteo, Definition, Clouds Clouds form _____.
 A. as a mass of warm, humid air rises into the atmosphere and cools, condensing moisture into small droplets
 B. as winds blow across bodies of water the sun causes the moisture to be absorbed and move upward forming clouds
 C. dry air compresses moisture from the atmosphere into clouds
 D. when the relative humidity of the atmosphere is low A
- 63 312 Ref: Meteo, Definition, Convection Ascending and descending air masses with different temperatures is part of an important heat transmitting process in our atmosphere called _____.
 A. conduction C. convection
 B. radiation D. barometric inversion C
- 64 962 Ref: Meteo, Definition, Coriolis The force resulting from the earth's rotation that causes winds to deflect to the right in the Northern Hemisphere and to the left in the Southern Hemisphere is called _____.
 A. pressure gradient C. aurora borealis
 B. Coriolis effect D. ballistic deflection B
- 65 1676 Ref: Meteo, Definition, Dew Which condition(s) is(are) necessary for the formation of dew?
 A. Clear skies
 B. Calm air
 C. Earth's surface cooler than the dew point of the air
 D. All of the above D
- 66 890 Ref: Meteo, Definition, Dew Point The dew point is reached when the _____.
 A. temperature of the air equals the temperature of the seawater
 B. atmospheric pressure is 14.7 lbs. per square inch
 C. relative humidity reaches 50%
 D. air becomes saturated with water vapor D
- 67 891 Ref: Meteo, Definition, Dew Point The dew point temperature is _____.
 A. always higher than the air temperature
 B. always lower than the air temperature
 C. equal to the difference between the wet and dry bulb temperatures
 D. the temperature at which the air is saturated with water vapor D
- 68 1232 Ref: Meteo, Definition, Dew Point The temperature at which the air is saturated with water vapor and below which condensation of water vapor will occur is referred to as the _____.
 A. precipitation point C. dew point
 B. vapor point D. absolute humidity C
- 69 451 Ref: Meteo, Definition, Freezing Freezing salt water spray should be anticipated when the air temperature drops below what temperature?
 A. 32°F (0.0°C) C. 0°F (-17.8°C)
 B. 28°F (-2.2°C) D. -40°F (-28.9°C) B



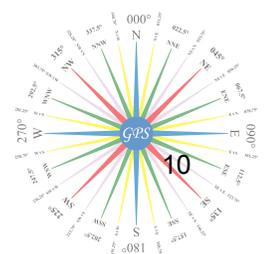
- 70 18 Ref: Meteo, Definition, Front C
 A boundary between two air masses is a(n) _____.
 A. lapse rate C. front
 B. isobar D. continent
- 71 233 Ref: Meteo, Definition, Front B
 A weather front exists when _____.
 A. air masses of the same temperature meet
 B. air masses of different temperatures meet
 C. many clouds create a differential in air density
 D. two lows are separated by a ridge of higher pressure
- 72 2028 Ref: Meteo, Definition, Front D
 You can expect frontal activity when two air masses collide and _____.
 A. their barometric pressures and temperatures are the same
 B. there are differences in how they track along the jet stream
 C. there are no significant differences between their temperatures and moisture content
 D. there are significant differences between the temperature of each air mass
- 73 92 Ref: Meteo, Definition, Frost B
 A light, feathery deposit of ice caused by the sublimation of water vapor directly into the crystalline form, on objects whose temperatures are below freezing, is called _____.
 A. dew C. glaze
 B. frost D. snow
- 74 1723 Ref: Meteo, Definition, Frost B
 Which of the following is NOT a form of precipitation?
 A. rain C. sleet
 B. frost D. snow
- 75 205 Ref: Meteo, Definition, Hail B
 A type of precipitation that occurs only in thunderstorms with strong convection currents that convey raindrops above and below the freezing level is known as _____.
 A. sleet C. freezing rain
 B. hail D. rime
- 76 1802 Ref: Meteo, Definition, Hail C
 Which type of precipitation is a product of the violent convection found in thunderstorms?
 A. Snow C. Hail
 B. Freezing Rain D. Sleet
- 77 978 Ref: Meteo, Definition, Height C
 The height of a wave is the vertical distance _____.
 A. from the still water plane to the crest
 B. from the still water plane to the trough
 C. from crest to trough
 D. between water levels at one-quarter of the wave's length
- 78 283 Ref: Meteo, Definition, Isotherm D
 An isotherm is _____.
 A. a line on a weather map connecting equal points of both temperature and pressure
 B. an instrument that measures the climatological effects of temperature
 C. a line connecting points of equal barometric pressure on a weather map
 D. a line connecting points of equal temperature on a weather map



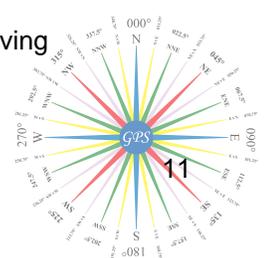
- 79 674 Ref: Meteo, Definition, Lifting D
 Mechanical lifting of air by the upslope slant of the terrain is called _____.
 A. vertical lifting C. advective lifting
 B. convective lifting D. topographic lifting
- 80 780 Ref: Meteo, Definition, Mamma B
 Small, visible mound-like protuberances on the bottom of cumulonimbus clouds, that are potential breeding grounds for waterspouts and tornadoes, are called _____.
 A. thunderheads C. rime
 B. mamma D. ice prisms
- 81 118 Ref: Meteo, Definition, Millibar C
 A millibar is a unit of _____.
 A. humidity C. pressure
 B. precipitation D. temperature
- 82 1161 Ref: Meteo, Definition, Modification B
 The process by which the temperature and/or moisture characteristics of an air mass changes is called _____.
 A. sublimation or condensation C. consolidation
 B. modification D. association
- 83 014 Ref: Meteo, Definition, Pressure A
 A barometric pressure reading of 29.92 inches of mercury is equivalent to _____.
 A. 1013.25 millibars C. 766 millimeters of mercury
 B. 29.92 feet of water D. 76 centimeters of water
- 84 049 Ref: Meteo, Definition, Pressure D
 A decrease in barometric pressure is associated with all of the following except _____.
 A. rising warm air C. inward spiraling circulation
 B. proximity to a low pressure area D. clear dry weather
- 85 103 Ref: Meteo, Definition, Pressure C
 A line on a weather chart connecting places which have the same barometric pressure is called an _____.
 A. isotherm C. isobar
 B. isallobar D. isotope
- 86 150 Ref: Meteo, Definition, Pressure C
 A rapid rise or fall of the barometer indicates _____.
 A. heavy rain within six hours C. a change in the present weather conditions
 B. a decrease in wind velocity D. that fog will soon set in
- 87 176 Ref: Meteo, Definition, Pressure C
 A slow rise in the barometric pressure forecasts _____.
 A. rainy weather for the next 48 hours C. improving weather conditions
 B. high seas D. deteriorating weather conditions
- 88 177 Ref: Meteo, Definition, Pressure C
 A slow, gradual fall of the barometer indicates approaching _____.
 A. gale force winds within 12 hours C. deteriorating or unsettled weather
 B. blizzard conditions D. heavy, wind driven rain
- 89 337 Ref: Meteo, Definition, Pressure D
 Atmospheric pressure at sea level is equal to _____.
 A. 14.7 pounds per square inch C. 1013.25 millibars
 B. 29.92 inches of mercury D. All of the above



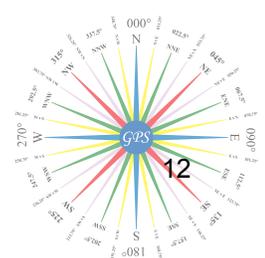
- 90 484 Ref: Meteo, Definition, Pressure B
If a hurricane several hundred miles away is moving in your general direction your barometer would _____.
A. start to rise rapidly
B. start to fall gradually
C. rise slowly, begin "pumping" and then start a slow, steady fall
D. remain steady
- 91 643 Ref: Meteo, Definition, Pressure C
Isobars on a weather map are useful in predicting _____.
A. temperature C. wind velocity
B. dew point D. relative humidity
- 92 651 Ref: Meteo, Definition, Pressure C
Lines drawn through points on the Earth having the same atmospheric pressure are known as _____.
A. isothermal C. isobars
B. millibars D. seismics
- 93 750 Ref: Meteo, Definition, Pressure B
Pressure gradient is a measure of _____.
A. a high-pressure area C. pressure difference over time
B. pressure difference over horizontal distance D. vertical pressure variation
- 94 1179 Ref: Meteo, Definition, Pressure B
The refraction correction table given in the Nautical Almanac is based on a standard or average atmospheric density with a temperature of 50°F (10°C) and atmospheric pressure of _____.
A. 29.72 inches (1006 millibars) C. 29.89 inches (1012 millibars)
B. 29.83 inches (1010 millibars) D. 29.93 inches (1014 millibars)
- 95 1211 Ref: Meteo, Definition, Pressure D
The standard atmospheric pressure in millibars is _____.
A. 760.0 C. 1000.0
B. 938.9 D. 1013.2
- 96 1212 Ref: Meteo, Definition, Pressure A
The standard atmospheric pressure measured in inches of mercury is _____.
A. 29.92 C. 760.0
B. 500.0 D. 1013.2
- 97 1379 Ref: Meteo, Definition, Pressure A
What do the numbers on isobars indicate?
A. barometric pressure C. rain in inches
B. temperature D. wind speed
- 98 1399 Ref: Meteo, Definition, Pressure B
What is a common unit of measure for atmospheric pressure?
A. centimeters C. Degrees
B. Inches D. Feet
- 99 1592 Ref: Meteo, Definition, Pressure D
When observing a rapid rise in barometric pressure, you may expect _____.
A. clear weather with no wind, but the possibility of rain or snow within 24 hours
B. deteriorating weather with rain or snow
C. heavy rain or severe thundershowers
D. clearing weather, possibly accompanied by high winds



- 100 1640 Ref: Meteo, Definition, Pressure D
 When your barometer reading changes from 30.25 to 30.05 in a 12-hour period it indicates _____.
 A. rapidly changing weather C. high winds within the next six hours
 B. improving weather D. little or no immediate change
- 101 146 Ref: Meteo, Definition, Relative Humidity C
 A psychrometer has two thermometers that provide dry bulb and wet bulb temperatures. By comparing these two temperature readings with a set of tables you can determine the _____.
 A. atmospheric pressure C. relative humidity and dew point
 B. wind speed D. wind chill factor
- 102 763 Ref: Meteo, Definition, Relative Humidity C
 Relative humidity is defined as _____.
 A. the maximum vapor content the air is capable of holding
 B. the minimum vapor content the air is capable of holding
 C. the ratio of the actual vapor content at the current temperature to the air's vapor holding capability
 D. the relation of the moisture content of the air to barometric pressure
- 103 764 Ref: Meteo, Definition, Relative Humidity B
 Relative humidity is the percentage of water vapor that is in the air as compared to the maximum amount it can hold at _____.
 A. a specific barometric pressure C. a specific wind speed
 B. a specific temperature D. any time
- 104 934 Ref: Meteo, Definition, Relative Humidity D
 The dry-bulb temperature is 78°F (26°C) and the wet-bulb temperature is 68°F (20°C). What is the relative humidity?
 A. 10% C. 56%
 B. 24% D. 60%
- 105 935 Ref: Meteo, Definition, Relative Humidity C
 The dry-bulb temperature is 78°F and the wet-bulb temperature is 62°F. What is the relative humidity?
 A. 16% C. 39%
 B. 24% D. 79%
- 106 948 Ref: Meteo, Definition, Relative Humidity A
 The expression "the air is saturated" means _____.
 A. the relative humidity is 100%
 B. the vapor pressure is at its minimum for the prevailing temperature
 C. precipitation has commenced
 D. cloud cover is 100%
- 107 1302 Ref: Meteo, Definition, Ridge C
 Two well-developed low pressure areas may be separated by a _____.
 A. trough of higher pressure C. ridge of higher pressure
 B. hill of higher pressure D. valley of higher pressure
- 108 1151 Ref: Meteo, Definition, Syphon B
 The pressure-sensitive element of an aneroid barometer is called a _____.
 A. pressure bellows C. column of mercury
 B. syphon cell D. constant pressure capsule
- 109 186 Ref: Meteo, Definition, Track C
 A storm's track is characterized by all of the following except _____.
 A. the direction the storm has come from C. the speed at which the storm is moving
 B. the direction in which the storm is moving D. the path taken by the storm



- 110 1180 Ref: Meteo, Definition, Troposphere B
 The region containing 3/4 of the mass of the atmosphere and the region to which are confined such phenomena as clouds, storms, precipitation and changing weather conditions is called _____.
 A. stratosphere C. stratopause
 B. troposphere D. tropopause
- 111 525 Ref: Meteo, Definition, Visibility D
 In a weather report, the term "visibility" expresses _____.
 A. how far you can see with the "naked eye"
 B. how far you can see with a telescope or binoculars
 C. how well you can identify an object at night
 D. the distance in miles at which prominent objects are identifiable
- 112 1805 Ref: Meteo, Definition, Visibility A
 Which weather element cannot be measured accurately while on board a moving vessel?
 A. Visibility C. Wind direction
 B. Temperature D. Atmospheric pressure
- 113 007 Ref: Meteo, Definition, Wind C
 "Surface circulation" is another term for _____.
 A. cyclones C. wind in the lower troposphere
 B. air in motion at all levels of the atmosphere D. ocean currents
- 114 245 Ref: Meteo, Fog, Advection D
 Advection fog is most commonly caused by _____.
 A. air being warmed above the dew point
 B. saturation of cold air by rain
 C. a rapid cooling of the air near the surface of the Earth at night
 D. warm moist air being blown over a colder surface
- 115 958 Ref: Meteo, Fog, Advection D
 The fog most commonly encountered at sea is called _____.
 A. conduction fog C. frontal fog
 B. radiation fog D. advection fog
- 116 959 Ref: Meteo, Fog, Advection D
 The fog produced by warm moist air passing over a cold surface is called _____.
 A. conduction fog C. frontal fog
 B. radiation fog D. advection fog
- 117 1633 Ref: Meteo, Fog, Advection C
 When warm moist air blows over a colder surface and is cooled below its dew point, the result is _____.
 A. radiation fog C. advection fog
 B. ice fog D. frost smoke
- 118 442 Ref: Meteo, Fog, Clearing D
 Fog generally clears when the _____.
 A. wind speed increases C. temperature increases
 B. wind direction changes D. All of the above
- 119 308 Ref: Meteo, Fog, Dew Point B
 As the temperature of the air reaches the dew point, _____.
 A. rain must develop C. it begins to snow
 B. fog may form D. water freezes



120 440 Ref: Meteo, Fog, Dew Point D
 Fog forms when the air _____.
 A. is 50% water saturated C. temperature is greater than the dew point temperature
 B. is 90% water saturated D. temperature is equal to, or below the dew point temperature

121 441 Ref: Meteo, Fog, Dew Point C
 Fog forms when the air temperature is at or below _____.
 A. 32° F C. the dew point
 B. the wet bulb temperature D. the dry bulb temperature

122 443 Ref: Meteo, Fog, Dew Point D
 Fog is formed when _____.
 A. the moisture in the air is condensed into small droplets
 B. air is cooled to its dew point
 C. the base of a cloud is on the ground
 D. All of the above

123 444 Ref: Meteo, Fog, Dew Point B
 Fog is likely to occur when there is little difference between the dew point and the _____.
 A. relative humidity C. barometric pressure
 B. air temperature D. absolute humidity

124 1568 Ref: Meteo, Fog, Dew Point B
 When compared to air temperature, which factor is most useful in predicting fog?
 A. Vapor pressure C. Barometric pressure
 B. Dew point D. Absolute humidity

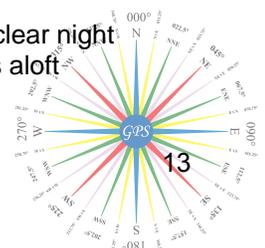
125 1822 Ref: Meteo, Fog, Dew Point D
 While on watch, you notice that the air temperature is dropping and is approaching the dew point. Which type of weather should be forecasted?
 A. Hail C. Sleet
 B. Heavy rain D. Fog

126 757 Ref: Meteo, Fog, Radiation B
 Radiation fog _____.
 A. always forms over water C. is thinnest at the surface
 B. is formed by a temperature inversion D. dissipates during the evening

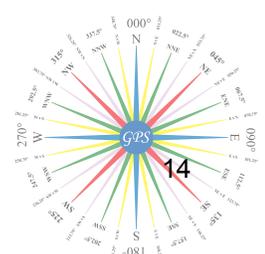
127 1245 Ref: Meteo, Fog, Radiation A
 The type of fog that occurs on clear nights with very light breezes and forms when the earth cools rapidly by radiation is known as _____.
 A. radiation fog C. convection fog
 B. frontal fog D. advection fog

128 799 Ref: Meteo, Fog, Smoke A
 Steam smoke will occur when _____.
 A. extremely cold air from shore passes over warmer water
 B. warm dry air from shore passes over cooler water
 C. cold ocean water evaporates into warm air
 D. cool rain passes through a warm air mass

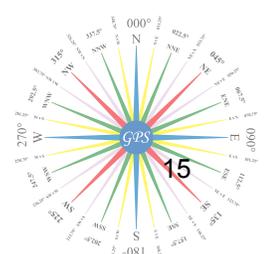
129 732 Ref: Meteo, Fog, Steam B
 On the Mississippi and Ohio Rivers, there is a special type of fog known as steam fog. It is caused by _____.
 A. warm air passing over much colder water C. a rapid cooling of the ground on a clear night
 B. cold air passing over much warmer water D. rain coming out of a warm air mass aloft



- 130 445 Ref: Meteo, Fog, Warm A
 Fog is most commonly associated with a(n) _____.
 A. warm front at night C. anticyclone
 B. low pressure area D. cold front in the spring
- 131 1674 Ref: Meteo, Fog, Warm A
 Which condition would most likely result in fog?
 A. Warm moist air blowing over cold water C. Warm moist air blowing over warm water
 B. Airborne dust particles D. Dew point falling below the air temperature
- 132 1514 Ref: Meteo, Fog D
 What will act to dissipate fog?
 A. Upwelling cold water C. Rain that is warmer than air
 B. Advection of warm air over a colder surface D. Downslope motion of an air mass along a coast
- 133 1483 Ref: Meteo, Front, Character D
 What is true about a front?
 A. A front is a boundary between two air masses.
 B. There are abrupt temperature differences on opposite sides of a front.
 C. The pressure tendencies are different on opposite sides of a front.
 D. All of the above
- 134 6 Ref: Meteo, Front, Cold A
 A cold front moving in from the northwest can produce _____.
 A. thunderstorms, hail, and then rapid clearing C. lengthy wet weather
 B. increasing cloud cover lasting for several days D. low ceilings with thick cirrus clouds
- 135 098 Ref: Meteo, Front, Cold C
 A line of clouds, sharp changes in wind direction, and squalls are most frequently associated with a(n) _____.
 A. occluded front C. cold front
 B. warm front D. warm sector
- 136 162 Ref: Meteo, Front, Cold D
 A series of brief showers accompanied by strong, shifting winds may occur along or some distance ahead of a(n) _____.
 A. upper front aloft C. occluded front
 B. cyclone D. cold front
- 137 246 Ref: Meteo, Front, Cold D
 After a cold front passes the barometric pressure usually _____.
 A. fluctuates
 B. remains the same
 C. remains the same, with clouds forming rapidly
 D. rises, often quite rapidly, with clearing skies
- 138 247 Ref: Meteo, Front, Cold C
 After a cold front passes, the barometric pressure _____.
 A. drops, and the temperature drops C. rises, and the temperature drops
 B. drops, and the temperature rises D. rises, and the temperature rises
- 139 248 Ref: Meteo, Front, Cold B
 After the passage of a cold front the visibility _____.
 A. does not change C. improves only slightly
 B. improves rapidly D. becomes poor



- 140 298 Ref: Meteo, Front, Cold B
 As a cold front passes an observer, pressure _____.
 A. drops and winds become variable C. drops and winds become gusty
 B. rises and winds become gusty D. rises and winds become variable
- 141 349 Ref: Meteo, Front, Cold B
 Brief, violent showers frequently accompanied by thunder and lightning are usually associated with _____.
 A. passage of a warm front
 B. passage of a cold front
 C. winds shifting counterclockwise in the Northern Hemisphere
 D. stationary high pressure systems
- 142 391 Ref: Meteo, Front, Cold B
 Cumulonimbus clouds are most likely to accompany a(n) _____.
 A. high pressure system C. warm front
 B. cold front D. occluded front
- 143 596 Ref: Meteo, Front, Cold D
 In the Northern Hemisphere, gusty winds shifting clockwise, a rapid drop in temperature, thunderstorms or rain squalls in summer (frequent rain/snow squalls in winter) then a rise in pressure followed by clearing skies, indicate the passage of a(n) _____.
 A. warm front C. anticyclone
 B. tropical cyclone D. cold front
- 144 601 Ref: Meteo, Front, Cold A
 In the Northern Hemisphere, winds veering sharply to the west or northwest with increasing speed are indications that a _____.
 A. cold front has passed C. stationary front exists
 B. low pressure center is approaching D. high pressure center has passed
- 145 795 Ref: Meteo, Front, Cold B
 Squall lines with an almost unbroken line of threatening dark clouds and sharp changes in wind direction, generally precede a(n) _____.
 A. slow-moving warm front C. stationary front
 B. fast-moving cold front D. occluded front
- 146 1220 Ref: Meteo, Front, Cold B
 The steepness of a cold front depends on _____.
 A. the direction of wind around the front C. the temperature of the air behind the front
 B. its velocity D. the precipitation generated by the front
- 147 1508 Ref: Meteo, Front, Cold D
 What type of clouds are associated with a cold front?
 A. Altostratus and fracto-cumulus C. Cirrus and cirrostratus
 B. Altostratus and cirrus D. Cumulus and cumulonimbus
- 148 1511 Ref: Meteo, Front, Cold D
 What weather change accompanies the passage of a cold front in the Northern Hemisphere?
 A. Wind shift from northeast clockwise to southwest
 B. Steady dropping of barometric pressure
 C. Steady precipitation, gradually increasing in intensity
 D. A line of cumulonimbus clouds
- 149 1567 Ref: Meteo, Front, Cold A
 When cold air displaces warm air you have a(n) _____.
 A. cold front C. stationary front
 B. occluded front D. warm front



150 1673 Ref: Meteo, Front, Cold D
 Which condition will occur after a cold front passes?
 A. Temperature rises C. Pressure decreases
 B. Stratus clouds form D. Humidity decreases

151 1782 Ref: Meteo, Front, Cold A
 Which statement is TRUE when comparing cold and warm fronts?
 A. Cold fronts are more violent and of shorter duration.
 B. Cold fronts are milder and last longer.
 C. They are very similar with the exception of wind direction.
 D. Warm fronts are more violent and of longer duration.

152 1800 Ref: Meteo, Front, Cold A
 Which type of frontal passage is associated with a relatively narrow band of precipitation?
 A. A cold front C. A stationary front
 B. A warm front D. None of the above

153 1804 Ref: Meteo, Front, Cold D
 Which weather change accompanies the passage of a cold front in the Northern Hemisphere?
 A. Wind shift from northeast, clockwise to southwest
 B. Steady dropping of barometric pressure
 C. Steady precipitation, gradually increasing in intensity
 D. A line of cumulonimbus clouds

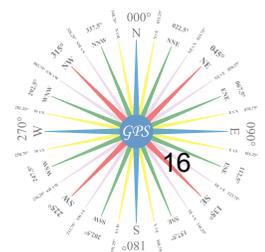
154 1837 Ref: Meteo, Front, Cold C
 While upbound through Memphis, the weather report on the TV news indicates that a cold front will cross western Kentucky and Tennessee the next morning. What weather should accompany this front?
 A. Light, southerly winds; high humidity and possibly fog
 B. Overcast with steady, light rain or drizzle
 C. Gusting winds shifting to the northwest with thunderstorms
 D. Scattered clouds with light to moderate southeasterly winds and possibly fog

155 2085 Ref: Meteo, Front, Cold C
 Your facsimile prognostic chart indicates that you will cross the cold front of a low pressure system in about 24 hours. You should _____.
 A. expect to see cirrus clouds followed by altostratus and nimbostratus clouds
 B. alter course to remain in the navigable semicircle
 C. prepare for gusty winds, thunderstorms, and a sudden wind shift
 D. expect clear weather, with steady winds and pressure, until the front passes

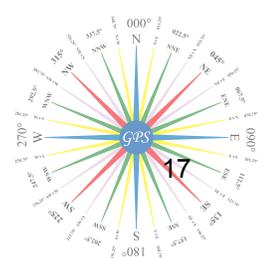
156 061 Ref: Meteo, Front, Occluded C
 A frontal thunderstorm is caused by _____.
 A. pronounced local heating
 B. wind being pushed up a mountain
 C. a warm air mass rising over a cold air mass
 D. an increased lapse rate caused by advection of warm surface air

157 284 Ref: Meteo, Front, Occluded D
 An occluded front is caused by a(n) _____.
 A. low pressure area C. area of calm air
 B. high pressure area D. cold front overtaking a warm front

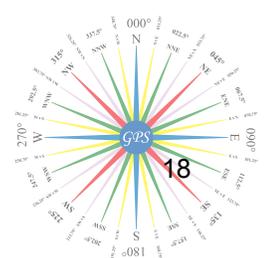
158 285 Ref: Meteo, Front, Occluded B
 An occluded front on a weather map is colored _____.
 A. blue line C. dashed blue line
 B. purple line D. alternate red and blue line



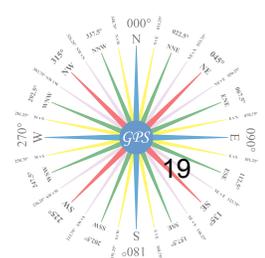
- 159 1799 Ref: Meteo, Front, Occluded B
 Which type of front forms when a cold front overtakes and forces a warm front upwards?
 A. A cold front C. A warm front
 B. An occluded front D. A stationary front
- 160 1856 Ref: Meteo, Front, Occluded D
 With the passage of an occluded front the temperature _____.
 A. rises rapidly
 B. remains about the same
 C. drops rapidly
 D. depends on whether warm type or cold type occlusion
- 161 1548 Ref: Meteo, Front, Stationary C
 When a cold air mass and a warm air mass meet, and there is no horizontal motion of either air mass, it is called a(n) _____.
 A. cold front C. stationary front
 B. occluded front D. warm front
- 162 3 Ref: Meteo, Front, Warm C
 A cloud sequence of cirrus, cirrostratus, and altostratus clouds followed by rain usually signifies the approach of a(n) _____.
 A. occluded front C. warm front
 B. stationary front D. cold front
- 163 302 Ref: Meteo, Front, Warm A
 As it approaches, a typical warm front will bring _____.
 A. rising temperatures and falling barometric pressure
 B. falling temperature and pressure
 C. falling temperatures and rising pressure
 D. rising barometric pressure and temperatures
- 164 730 Ref: Meteo, Front, Warm A
 On the approach of a warm front, barometric pressure usually _____.
 A. falls C. is uncertain
 B. is steady D. rises
- 165 797 Ref: Meteo, Front, Warm B
 Steady precipitation is typical of _____.
 A. coming cold weather conditions C. high pressure conditions
 B. a warm front weather condition D. scattered cumulus clouds
- 166 951 Ref: Meteo, Front, Warm B
 The first indications a mariner will have of the approach of a warm front will be _____.
 A. large cumulonimbus (thunderclouds) building up
 B. high cirrus clouds gradually changing to cirrostratus and then to altostratus
 C. fog caused by the warm air passing over the cooler water
 D. low dark clouds accompanied by intermittent rain
- 167 952 Ref: Meteo, Front, Warm D
 The FIRST indications a mariner will have of the approach of a warm front will be _____.
 A. large cumulonimbus clouds building up
 B. low dark clouds with intermittent rain
 C. fog caused by the warm air passing over the cooler water
 D. high clouds gradually followed by lower thicker clouds



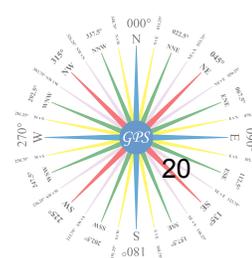
- 168 1201 Ref: Meteo, Front, Warm C
 The slope of a warm front is about _____.
 A. 1 mile vertically to 10 miles horizontally C. 1 mile vertically to 150 miles horizontally
 B. 1 mile vertically to 50 miles horizontally D. 1 mile vertically to 500 miles horizontally
- 169 1487 Ref: Meteo, Front, Warm D
 What is typical of warm front weather conditions?
 A. An increase in pressure C. Scattered cumulus clouds
 B. A wind shift from southwest to northwest D. Steady precipitation
- 170 1557 Ref: Meteo, Front, Warm A
 When a warm air mass is adjacent to a cold air mass, the separation line between the two is called a(n) _____.
 A. front C. isotherm
 B. isobar D. equipotential line
- 171 1558 Ref: Meteo, Front, Warm D
 When a warm air mass overtakes a cold air mass, the contact surface is called a _____.
 A. line squall C. cold front
 B. water spout D. warm front
- 172 1559 Ref: Meteo, Front, Warm A
 When a warm air mass overtakes and replaces a cold air mass, the contact surface is called a(n) _____.
 A. warm front C. line squall
 B. cold front D. occluded front
- 173 1700 Ref: Meteo, Front, Warm B
 Which is a characteristic of the weather preceding an approaching warm front?
 A. Gusty winds C. Decreasing relative humidity
 B. Steadily falling barometric pressure D. Clearing skies
- 174 1727 Ref: Meteo, Front, Warm C
 Which of the following statements concerning frontal movements is TRUE?
 A. The temperature rises after a cold front passes.
 B. The barometric pressure rises when a warm front passes.
 C. A cold front generally passes faster than a warm front.
 D. A warm front usually has more violent weather associated with it than a cold front.
- 175 1838 Ref: Meteo, Front, Warm D
 While upbound through Memphis, the weather report on TV news indicates that a warm front is stationary over the Kentucky - Missouri - Tennessee areas. What weather conditions should you expect?
 A. Strong, gusting winds from the NW with thundershowers
 B. Light winds from the northeast with clear skies
 C. A "blue norther"
 D. Southerly winds with steady rain; fog or overcast
- 176 280 Ref: Meteo, Instrument, Hygrometer C
 An instrument that maintains a continuous record of humidity changes is called a _____.
 A. thermometer C. hygrograph
 B. barometer D. thermograph
- 177 013 Ref: Meteo, Instrument, Pressure B
 A barometer showing falling pressure indicates the approach of a _____.
 A. high pressure system C. high dew point
 B. low pressure system D. low dew point



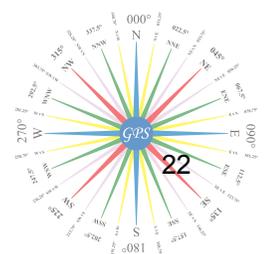
- 178 115 Ref: Meteo, Instrument, Pressure C
 A mercurial barometer at sea is subject to rapid variations in height ("pumping") due to the pitch and roll of the vessel. To avoid this error, measurements of atmospheric pressure at sea are usually measured with a(n) _____.
 A. syphon barometer C. aneroid barometer
 B. cistern barometer D. fortin barometer
- 179 116 Ref: Meteo, Instrument, Pressure B
 A microbarograph is a precision instrument that provides a _____.
 A. charted record of atmospheric temperature over time
 B. charted record of atmospheric pressure over time
 C. graphic record of combustible gases measured in an atmosphere
 D. graphic record of vapor pressure from a flammable/combustible liquid
- 180 171 Ref: Meteo, Instrument, Pressure C
 A single barometric pressure reading of 28.60 indicates _____.
 A. rapidly improving weather C. a severe low pressure system
 B. deteriorating weather D. fair weather and calm
- 181 191 Ref: Meteo, Instrument, Pressure B
 A syphon cell is a part of a _____.
 A. maximum thermometer C. thermograph
 B. barograph D. hygrometer
- 182 266 Ref: Meteo, Instrument, Pressure B
 An aneroid barometer is an instrument _____.
 A. used to measure the speed of wind
 B. in which the pressure of the air is measured
 C. that tells which direction a storm is coming from
 D. used to measure the height of waves
- 183 267 Ref: Meteo, Instrument, Pressure D
 An aneroid barometer on a boat should always be _____.
 A. located in an air-conditioned area C. protected by a collision bulkhead
 B. mounted in the passenger compartment D. permanently mounted
- 184 268 Ref: Meteo, Instrument, Pressure A
 An aneroid barometer reading should be corrected for differences in _____.
 A. elevation C. wind speed
 B. temperature D. latitude
- 185 278 Ref: Meteo, Instrument, Pressure C
 An instrument designed to maintain a continuous record of atmospheric pressure is a(n) _____.
 A. mercurial barometer C. barograph
 B. aneroid barometer D. thermograph
- 186 292 Ref: Meteo, Instrument, Pressure D
 Aneroid barometers are usually calibrated to indicate atmospheric pressure in _____.
 A. inches of mercury and centimeters C. inches of mercury and millimeters
 B. feet of mercury and millibars D. inches of mercury and millibars
- 187 338 Ref: Meteo, Instrument, Pressure D
 Atmospheric pressure may be measured with a(n) _____.
 A. barograph C. mercurial barometer
 B. aneroid barometer D. All of the above



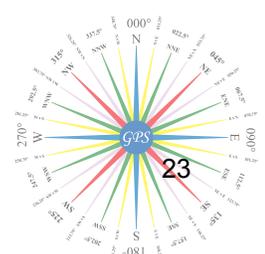
- 188 341 Ref: Meteo, Instrument, Pressure A
Barometer readings in weather reports are given in terms of pressure at _____.
A. sea level C. the weather station
B. Washington, D.C. D. the broadcasting station
- 189 342 Ref: Meteo, Instrument, Pressure B
Barometers are calibrated at a standard temperature of _____.
A. 0°F C. 60°F
B. 32°F D. 70°F
- 190 449 Ref: Meteo, Instrument, Pressure D
For an accurate barometer check, you would _____.
A. check it with a barometer on another vessel
B. take readings from several barometers and average them
C. check it with the barometer at the ship chandlery
D. check it against radio or National Weather Service reports of the immediate vicinity
- 191 513 Ref: Meteo, Instrument, Pressure D
If you observe a rapid fall of barometric pressure you should _____.
A. call the Coast Guard to verify the change
B. know the barometer is not working properly
C. contact the NWS or a local radio station
D. prepare for the onset of stormy weather with strong winds
- 192 515 Ref: Meteo, Instrument, Pressure B
If your mercurial barometer reads 30.50 inches (1033 millibars) and the temperature is 56°F (13°C), what is the correct reading at 55°N, 150°W?
A. 30.42 inches (1030 millibars) C. 30.50 inches (1032 millibars)
B. 30.45 inches (1031 millibars) D. 30.53 inches (1033 millibars)
- 193 521 Ref: Meteo, Instrument, Pressure A
In a microbarograph, the pen should be checked and the inkwell filled _____.
A. each time the chart is changed C. once per week
B. once per month D. daily
- 194 738 Ref: Meteo, Instrument, Pressure A
On what does the operation of an aneroid barometer depend?
A. Thin, metal, air tight cell
B. Curved tube containing alcohol
C. Column of mercury supported by atmospheric pressure
D. Expansion of mercury in a closed tube
- 195 753 Ref: Meteo, Instrument, Pressure C
Prior to reading an aneroid barometer, you should tap the face lightly with your finger to _____.
A. expose any loose connections C. bring the pointer to its true position
B. demagnetize the metal elements D. contract and expand the glass face
- 196 769 Ref: Meteo, Instrument, Pressure B
Scales on aneroid barometers are usually graduated in inches of mercury in the general range of _____.
A. 26 to 29 inches C. 30 to 33 inches
B. 28 to 31 inches D. 32 to 35 inches
- 197 833 Ref: Meteo, Instrument, Pressure D
The barometer is an instrument for measuring the _____.
A. temperature C. dew point
B. relative humidity D. atmospheric pressure



- 208 281 Ref: Meteo, Instrument, Psychrometer A
 An instrument useful in predicting fog is the _____.
 A. sling psychrometer C. anemometer
 B. microbarograph D. aneroid barometer
- 209 1728 Ref: Meteo, Instrument, Psychrometer D
 Which of the following statements is FALSE?
 A. An anemometer measures wind speed. C. A thermometer measures temperature.
 B. A barometer measures atmospheric pressure. D. A psychrometer measures wind pressure.
- 210 175 Ref: Meteo, Instrument, Psychrometer C
 A sling psychrometer is used to measure _____.
 A. seawater temperature C. dry bulb and wet bulb temperatures
 B. engine temperature D. barometric pressure
- 211 083 Ref: Meteo, Instrument, Relative Humidity D
 A hygrometer is a device used for determining _____.
 A. the absolute temperature C. wind velocity
 B. atmospheric pressure D. relative humidity
- 212 174 Ref: Meteo, Instrument, Relative Humidity C
 A sling psychrometer is a(n) _____.
 A. type of cargo gear C. instrument used to measure relative umidity
 B. instrument used in celestial navigation
 D. instrument used to measure specific gravity
- 213 1007 Ref: Meteo, Instrument, Relative Humidity B
 The instrument most commonly used to gather the data for determining the relative humidity is the _____.
 A. hydrometer C. barometer
 B. psychrometer D. anemometer
- 214 1698 Ref: Meteo, Instrument, Relative Humidity B
 Which instrument is used to measure the relative humidity of the air?
 A. A hydrometer C. A spectrometer
 B. A hygrometer D. A barograph
- 215 282 Ref: Meteo, Instrument, Thermograph C
 An instrument which maintains a continuous record of temperature changes is called a _____.
 A. thermometer C. thermograph
 B. barometer D. hygrograph
- 216 240 Ref: Meteo, Instrument, Wind C
 A wind vane on a moving vessel shows _____.
 A. dead reckoning wind direction C. apparent wind direction
 B. true wind direction D. estimated wind direction
- 217 265 Ref: Meteo, Instrument, Wind A
 An anemometer on a moving vessel measures _____.
 A. apparent wind speed only C. true wind speed only
 B. true wind speed and true wind direction D. apparent wind speed and true wind direction
- 218 279 Ref: Meteo, Instrument, Wind A
 An instrument that indicates wind direction is known as a(n) _____.
 A. weather vane, wind vane or wind sock C. hygrometer
 B. hydrometer D. sling psychrometer



- 219 297 Ref: Meteo, Instrument, Wind C
 Apparent wind speed blowing across your vessel while underway can be measured by a(n) _____.
 A. barometer C. anemometer
 B. wind vane D. thermometer
- 220 1395 Ref: Meteo, Instrument, Wind D
 What instrument measures wind velocity?
 A. Hydrometer C. Psychrometer
 B. Barometer D. Anemometer
- 221 1484 Ref: Meteo, Instrument, Wind C
 What is TRUE concerning an anemometer on a moving vessel?
 A. It measures true wind speed.
 B. It measures true wind speed and true wind direction.
 C. It measures apparent wind speed.
 D. It measures apparent wind speed and true wind direction.
- 222 1489 Ref: Meteo, Instrument, Wind D
 What is used to measure wind velocity?
 A. Psychrometer C. Wind sock
 B. Barometer D. Anemometer
- 223 532 Ref: Meteo, Pressure, Diurnal B
 In low latitudes the range of the diurnal variation of pressure is up to _____.
 A. 0.5 millibar C. 6.0 millibars
 B. 3.0 millibars D. 10.0 millibars
- 224 536 Ref: Meteo, Pressure, Diurnal C
 In low latitudes, the high(s) of the diurnal variation of pressure occur(s) at _____.
 A. noon C. 1000 and 2200
 B. noon and midnight D. 1600
- 225 537 Ref: Meteo, Pressure, Diurnal D
 In low latitudes, the low(s) of the diurnal variation of pressure occur(s) at _____.
 A. noon C. 1000 and 2200
 B. noon and midnight D. 0400 and 1600
- 226 877 Ref: Meteo, Pressure, Diurnal B
 The daily recurring pattern of pressure changes most noticeable in low latitudes is the _____.
 A. daily lapse reading C. pressure tendency
 B. diurnal variation of pressure D. synoptic pressure
- 227 923 Ref: Meteo, Pressure, Diurnal D
 The diurnal variation of pressure is most noticeable _____.
 A. above the polar circles
 B. in a low pressure area
 C. during periods of low temperatures
 D. in the doldrums
- 228 924 Ref: Meteo, Pressure, Diurnal A
 The diurnal variation of pressure is not visible in the middle latitudes in winter because _____.
 A. it is masked by the pressure changes of moving weather systems
 B. the decreased gravitational effect from the sun causes the variation to fade
 C. the decreased average temperature is less than the critical temperature
 D. the increased Coriolis force disperses the pressure variation



229 1572 Ref: Meteo, Pressure, Isobars A
 When crossing a front isobars tend to _____.
 A. change from smooth curves within the air mass to sharp bends at the front
 B. change from sharp bends within the air mass to smooth curves at the front
 C. pass smoothly across the front with no change
 D. become closer together at the front and pass through in straight lines

230 1776 Ref: Meteo, Publication, Pilot A
 Which statement describes the prevailing wind direction in mid-winter in the Gulf Coast area?
 A. 30% to 40% of mid-winter winds are from a northern quadrant.
 B. 40% to 50% of mid-winter winds are from a southern quadrant.
 C. the winds are variable in speed, but strongest in March.
 D. None of the above

231 798 Ref: Meteo, Rivers, Fog C
 Steam fog is most likely to occur on the Mississippi and Ohio Rivers in _____.
 A. spring, around late evening C. fall, around early morning
 B. spring, around early evening D. fall, around midday

232 511 Ref: Meteo, Sound, Speed B
 If you count 20 seconds between seeing lightning and hearing the thunder, how far is the storm away from you?
 A. 2 miles C. 6 miles
 B. 4 miles D. 8 miles

233 564 Ref: Meteo, Surface, Doldrums B
 In the doldrums you can expect _____.
 A. steady, constant winds C. steep pressure gradients
 B. frequent rain showers and thunderstorms D. low relative humidity

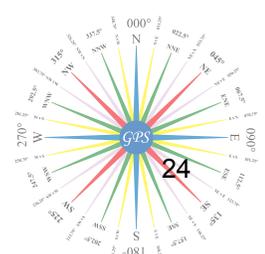
234 565 Ref: Meteo, Surface, Doldrums C
 In the doldrums you will NOT have _____.
 A. high relative humidity C. steep pressure gradients
 B. frequent showers and thunderstorms D. frequent calms

235 837 Ref: Meteo, Surface, Doldrums A
 The belt of light and variable winds between the westerly wind belt and the northeast trade winds is called the _____.
 A. subtropical high pressure belt C. doldrum belt
 B. intertropical convergence zone D. polar frontal zone

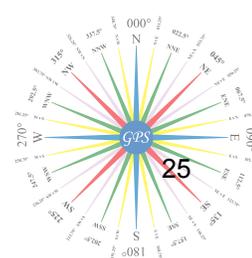
236 922 Ref: Meteo, Surface, Doldrums D
 The diurnal pressure variation is most noticeable in the _____.
 A. polar regions C. roaring forties
 B. horse latitudes D. doldrums

237 1362 Ref: Meteo, Surface, Doldrums B
 What are the doldrums characterized by?
 A. steady, light to moderate winds C. clear skies
 B. frequent calms D. low humidity

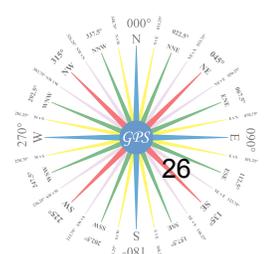
238 554 Ref: Meteo, Surface, Easterlies B
 In regions near the poles, the winds are generally described as _____.
 A. westerlies C. northerlies
 B. easterlies D. southerlies



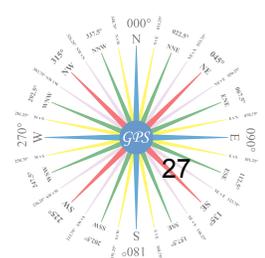
- 239 827 Ref: Meteo, Surface, Forties C
The area of strong westerly winds occurring between 40°S and 60°S latitude is called the _____.
A. polar easterlies C. roaring forties
B. prevailing westerlies D. jet streams
- 240 1279 Ref: Meteo, Surface, Forties D
The winds of the "roaring forties" are strongest near _____.
A. 40°N C. 40°S
B. 50°N D. 50°S
- 241 938 Ref: Meteo, Surface, Heating D
The Earth's irregular heating is caused by _____.
A. the time of day C. geography
B. the seasons D. All of the above
- 242 1471 Ref: Meteo, Surface, Heating C
What is the primary source of the earth's weather?
A. The oceans C. The sun
B. The moon D. The solar system
- 243 1714 Ref: Meteo, Surface, High A
Which meteorological feature controls the climate of the Gulf and the Gulf Coast area during late spring and summer?
A. The Bermuda High C. The horse latitudes
B. The doldrums D. Tropical cyclones
- 244 735 Ref: Meteo, Surface, Horse D
On the pole side of the trade wind belt, there is an area of high pressure with weak pressure gradients and light, variable winds. This area is called the _____.
A. prevailing westerlies C. doldrums
B. geostrophic winds D. horse latitudes
- 245 807 Ref: Meteo, Surface, Horse B
The "horse latitudes" are regions of _____.
A. brisk prevailing winds C. abundant blue sea grass vegetation
B. light airs and calms D. None of the above
- 246 988 Ref: Meteo, Surface, Horse A
The horse latitudes are characterized by _____.
A. weak pressure gradients and light, variable winds
B. the formation of typhoons or hurricanes in certain seasons
C. steady winds in one direction for six months followed by wind reversal for the next six months
D. steady winds generally from the southeast in the Southern Hemisphere
- 247 1181 Ref: Meteo, Surface, Horse B
The region of high pressure extending around the Earth at about 35°N latitude is called the _____.
A. prevailing westerlies C. troposphere
B. horse latitudes D. doldrums
- 248 1722 Ref: Meteo, Surface, Horse A
Which of the following is associated with consistently high barometric pressure?
A. The horse latitudes
B. The doldrums
C. The prevailing westerlies
D. The trade winds



- 249 458 Ref: Meteo, Surface, Low A
 Generally speaking, you should expect to find low atmospheric pressure prevailing in the earth's _____.
 A. equatorial area C. mid-latitudes
 B. polar regions D. All of the above
- 250 1150 Ref: Meteo, Surface, Pressure B
 The pressure gradient between the horse latitudes and doldrums runs _____.
 A. east to west C. northeast to southwest
 B. north to south D. northwest to southeast
- 251 423 Ref: Meteo, Surface, Trades A
 During the winter months, the southeast trade winds are _____.
 A. stronger than during the summer months C. drier than during the summer months
 B. weaker than during the summer months D. wetter than during the summer months
- 252 867 Ref: Meteo, Surface, Trades C
 The consistent winds blowing from the horse latitudes to the doldrums are called the _____.
 A. prevailing westerlies C. trade winds
 B. polar easterlies D. roaring forties
- 253 1153 Ref: Meteo, Surface, Trades B
 The prevailing winds in the band of latitude from approximately 5°N to 30°N are the _____.
 A. prevailing westerlies C. southeast trade winds
 B. northeast trade winds D. doldrums
- 254 1203 Ref: Meteo, Surface, Trades D
 The southeast trade winds actually blow toward the _____.
 A. southeast C. east
 B. south D. northwest
- 255 1280 Ref: Meteo, Surface, Trades C
 The winds with the greatest effect on the set, drift, and depth of the equatorial currents are the _____.
 A. doldrums C. trade winds
 B. horse latitudes D. prevailing westerlies
- 256 388 Ref: Meteo, Surface, Westerlies A
 Considering the general circulation of the atmosphere, the wind system between latitudes 30°N and 60°N is commonly called the _____.
 A. prevailing westerlies C. trade winds
 B. horse latitudes D. subpolar low pressure belts
- 257 734 Ref: Meteo, Surface, Westerlies D
 On the pole side of the high pressure belt in each hemisphere, the pressure diminishes. The winds along these gradients are diverted by the Earth's rotation toward the east and are known as the _____.
 A. geostrophic winds C. horse latitudes
 B. doldrums D. prevailing westerlies
- 258 751 Ref: Meteo, Surface, Westerlies D
 Prevailing winds between 30°N and 60°N latitude are from the _____.
 A. north C. east
 B. south D. west
- 259 1152 Ref: Meteo, Surface, Westerlies A
 The prevailing westerlies of the Southern Hemisphere blow 18 - 30 knots _____.
 A. all year long C. during the winter only
 B. during the summer months only D. during spring only



- 260 1643 Ref: Meteo, Surface, Westerlies C
 Where are the prevailing westerlies of the Southern Hemisphere located?
 A. Between the Equator and 10° latitude C. Between 30° and 60° latitude
 B. Between 10° and 20° latitude D. Between 60° and 90° latitude
- 261 1808 Ref: Meteo, Surface, Westerlies C
 Which wind pattern has the most influence over the movement of frontal weather systems over the North American continent?
 A. Subpolar easterlies C. Prevailing westerlies
 B. Northeast trades D. Dominant southwesterly flow
- 262 1434 Ref: Meteo, System, Cyclone, Circulation B
 What is the direction of rotation of tropical cyclones, tropical storms and hurricanes in the Northern Hemisphere?
 A. Clockwise and outward C. Counterclockwise and outward
 B. Counterclockwise and inward D. Clockwise and inward
- 263 1278 Ref: Meteo, System, Cyclone, Dangerous A
 The wind velocity is higher in the dangerous semicircle of a tropical cyclone because of the _____.
 A. wind circulation and forward motion of the storm
 B. extension of the low pressure ridge
 C. recurvature effect
 D. direction of circulation and pressure gradient
- 264 2039 Ref: Meteo, System, Cyclone, Dangerous D
 You have determined that you are in the right semicircle of a tropical cyclone in the Northern Hemisphere. What action should you take to avoid the storm?
 A. Place the wind on the starboard quarter and hold that course.
 B. Place the wind on the port quarter and hold that course.
 C. Place the wind on the port bow and hold that course.
 D. Place the wind on the starboard bow and hold that course.
- 265 064 Ref: Meteo, System, Cyclone, Definition A
 A generally circular low pressure area is called a(n) _____.
 A. cyclone C. cold front
 B. anticyclone D. occluded front
- 266 1295 Ref: Meteo, System, Cyclone, Disturbance B
 Tropical cyclones are classified by form and intensity. Which system does not have closed isobars?
 A. Hurricane C. Tropical depression
 B. Tropical disturbance D. Cyclone
- 267 771 Ref: Meteo, System, Cyclone, Formation D
 Severe tropical cyclones (hurricanes, typhoons) occur in all warm-water oceans except the _____.
 A. Indian Ocean C. South Pacific Ocean
 B. North Pacific Ocean D. South Atlantic Ocean
- 268 1296 Ref: Meteo, System, Cyclone, Formation D
 Tropical cyclones do not form within 5° of the Equator because _____.
 A. there are no fronts in that area C. it is too humid
 B. it is too hot D. of negligible Coriolis force
- 269 1297 Ref: Meteo, System, Cyclone, Formation A
 Tropical cyclones normally form within which of the following belts of latitude?
 A. 5° to 15° C. 30° to 45°
 B. 15° to 30° D. 45° to 60°



270 523 Ref: Meteo, System, Cyclone, Navigable A
 In a tropical cyclone in the Northern Hemisphere, a vessel hove to with the wind shifting counterclockwise would be _____.
 A. in the navigable semicircle C. directly in the path of the center
 B. in the dangerous semicircle D. ahead of the storm

271 524 Ref: Meteo, System, Cyclone, Navigable C
 In a tropical cyclone, in the Northern Hemisphere, a vessel hove to with the wind shifting counterclockwise is _____.
 A. ahead of the storm center C. in the navigable semicircle
 B. in the dangerous semicircle D. directly in the approach path of the storm

272 041 Ref: Meteo, System, Cyclone, Occluded C
 A cyclone in its final stage of development is called a(n) _____.
 A. tornado C. occluded cyclone or occluded front
 B. anticyclone D. polar cyclone

273 822 Ref: Meteo, System, Cyclone, Pressure B
 The approximate distance to a storm center can be determined by noting the hourly rate of fall of the barometer. If the rate of fall is 0.08 - 0.12 inches, what is the approximate distance to the storm center?
 A. 50 to 80 miles C. 100 to 150 miles
 B. 80 to 100 miles D. 150 to 250 miles

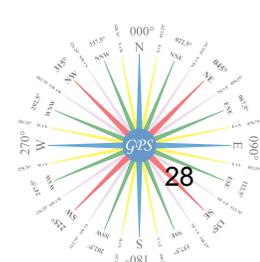
274 1391 Ref: Meteo, System, Cyclone, Pressure A
 What indicates that a tropical cyclone may be within 500 to 1,000 miles of your position?
 A. A pumping of the barometer up and down a few millibars
 B. A sudden wind shift from southwest to northwest followed by steadily increasing winds
 C. The normal swell pattern becoming confused, with the length of the swell increasing
 D. An overcast sky with steadily increasing rain from nimbostratus clouds

275 1184 Ref: Meteo, System, Cyclone, Reports A
 The safest and most prudent procedure to follow while navigating in the vicinity of a tropical cyclone is to _____.
 A. take positive steps to avoid it if possible
 B. batten down and prepare to ride out the storm
 C. continue to navigate farther from the coast
 D. always navigate towards the coast by the most direct route

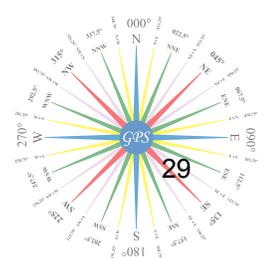
276 984 Ref: Meteo, System, Cyclone, Season C
 The highest frequency of tropical cyclones in the North Atlantic Ocean occurs during _____.
 A. January, February and March C. August, September and October
 B. April, May and June D. July, November and December

277 1452 Ref: Meteo, System, Cyclone, Swell B
 What is the FIRST sign of the existence of a well developed tropical cyclone?
 A. Gale force winds from the north C. Steep, short-period waves and light wind
 B. An unusually long ocean swell D. Thunderstorms and higher than usual humidity

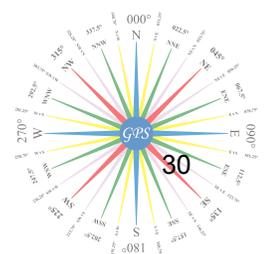
278 2091 Ref: Meteo, System, Cyclone, Swell B
 Your present weather is sunny with a steady barometer. A low swell approaches your vessel from the south with crests passing at relatively long periods of about four per minute. This usually indicates _____.
 A. a warm front from the south
 B. a tropical cyclone south of your vessel
 C. a hurricane about 100 miles south of your vessel and heading in your direction
 D. an extra-tropical cyclone



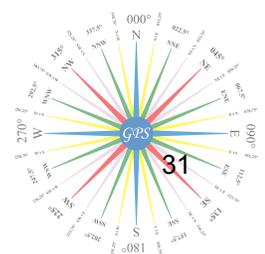
- 279 395 Ref: Meteo, System, Cyclone, Track B
 Cyclones tend to move _____.
 A. perpendicular to the isobars in their warm sectors
 B. parallel to the isobars in their warm sectors
 C. parallel to the line of the cold front
 D. perpendicular to the line of the cold front
- 280 1249 Ref: Meteo, System, Cyclone, Track B
 The usual sequence of directions in which a tropical cyclone moves in the Southern Hemisphere is _____.
 A. northwest, west, and south
 B. southwest, south, and southeast
 C. north, northwest, and east
 D. west, northwest, and north
- 281 605 Ref: Meteo, System, High, Circulation C
 In the Southern Hemisphere the wind circulation in a high pressure system rotates _____.
 A. clockwise and inward
 B. clockwise and outward
 C. counterclockwise and outward
 D. counterclockwise and inward
- 282 957 Ref: Meteo, System, High, Circulation B
 The flow of air around an anticyclone in the Southern Hemisphere is _____.
 A. clockwise and outward
 B. counterclockwise and outward
 C. clockwise and inward
 D. counterclockwise and inward
- 283 1273 Ref: Meteo, System, High, Circulation D
 The wind circulation around a high pressure center in the Northern Hemisphere is _____.
 A. counterclockwise and moving towards the high
 B. counterclockwise and moving outward from the high
 C. clockwise and moving towards the high
 D. clockwise and moving outward from the high
- 284 129 Ref: Meteo, System, High, Definition C
 A phenomenon where the atmospheric pressure is higher than that of other surrounding regions is called _____.
 A. the "trade winds" high"
 B. a low front or an occluded front
 C. a high pressure area; an anticyclone; or a high
 D. the "doldrums"
- 285 829 Ref: Meteo, System, High, Definition A
 The atmosphere in the vicinity of a high pressure area is called a(n) _____.
 A. anticyclone
 B. cold front
 C. occluded front
 D. cyclone
- 286 299 Ref: Meteo, System, High, Pressure C
 As a high pressure system approaches, the barometer reading _____.
 A. stays the same
 B. falls
 C. rises
 D. falls rapidly
- 287 1930 Ref: Meteo, System, High, Pressure C
 You are located within a stationary high pressure area. Your aneroid barometer is falling very slowly. This indicates a(n) _____.
 A. wind shift of 180°
 B. large increase in wind velocity
 C. decrease in the pressure of the system
 D. increase in the intensity of the system



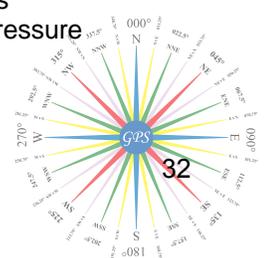
- 288 294 Ref: Meteo, System, High, Weather A
 Anticyclones are usually characterized by _____.
 A. dry, fair weather C. gustiness and continuous precipitation
 B. high winds and cloudiness D. overcast skies
- 289 383 Ref: Meteo, System, High, Weather B
 Compared to a low pressure system, generally the air in a high is _____.
 A. warmer, less dense, and less stable C. muggy and cloudy
 B. cool, more dense, and drier D. extremely moist with high relative humidity
- 290 464 Ref: Meteo, System, High, Weather B
 Good weather is usually associated with a region of _____.
 A. low barometric pressure C. falling barometric pressure
 B. high barometric pressure D. pumping barometric pressure
- 291 678 Ref: Meteo, System, High, Weather B
 Most high pressure areas in the United States are accompanied by _____.
 A. precipitation C. humid, sticky weather
 B. clear, cool weather D. cool fogs
- 292 1823 Ref: Meteo, System, High, Weather B
 While passing through Memphis, the weather report on the TV news indicates that a cold front is crossing western Kentucky and Tennessee. Tomorrow's weather will be dominated by a high pressure area. What weather should you expect tomorrow?
 A. Light, southerly winds; high humidity and possibly fog
 B. Moderate winds from the northwest, clear visibility and cooler temperatures
 C. Low overcast; mild temperatures with light, steady rain or drizzle
 D. Scattered clouds with light, southeasterly winds; high humidity and possibly fog
- 293 600 Ref: Meteo, System, High, Wind B
 In the Northern Hemisphere, when the center of a high pressure system is due east of your position, you can expect winds from the _____.
 A. south to west C. north to west
 B. south to east D. north to east
- 294 1551 Ref: Meteo, System, High, Wind B
 When a high pressure system is centered north of your vessel in the Northern Hemisphere _____.
 A. you should experience hot, moist, clear weather
 B. the wind direction is generally easterly
 C. the winds should be from the southwest at your location
 D. the winds should be brisk
- 295 2090 Ref: Meteo, System, High, Wind A
 Your position X is at LAT 35°S. Which winds are you experiencing?
 A. Northeasterly
 B. Northwesterly
 C. Southeasterly
 D. Southwesterly
- 296 1221 Ref: Meteo, System, Hurricane, Cloud Walls C
 The strongest winds and heaviest rains in a hurricane are found in the _____.
 A. outer bands
 B. eye
 C. cloud walls
 D. spiral rainbands



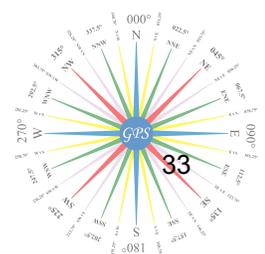
- 297 950 Ref: Meteo, System, Hurricane, Clouds A
 The first cloud formations you can use to indicate the bearing of the center of a hurricane or tropical storm are _____.
- A. the point of convergence of the cirrus clouds
 - B. the direction of movement of thunderstorms on radar
 - C. the darkest point of the clouds in the "bar" of the storm
 - D. the point of origin of the altostratus clouds
- 298 598 Ref: Meteo, System, Hurricane, Dangerous D
 In the Northern Hemisphere, the right half of the storm is known as the dangerous semicircle because _____.
- A. The wind speed is greater here since the wind is traveling in the same general direction as the storm's track
 - B. the direction of the wind and seas might carry a vessel into the path of the storm
 - C. the seas are higher because of greater wind speed
 - D. All of the above
- 299 805 Ref: Meteo, System, Hurricane, Dangerous D
 That half of the hurricane to the right hand side of its track (as you face the same direction that the storm is moving) in the Northern Hemisphere is called the _____.
- A. windward side
 - B. leeward side
 - C. safe semicircle
 - D. dangerous semicircle
- 300 878 Ref: Meteo, System, Hurricane, Dangerous A
 The dangerous semicircle of a hurricane in the Northern Hemisphere is that area of the storm _____.
- A. to the right of the storm's track
 - B. measured from true north clockwise to 180°T
 - C. measured from true north counterclockwise to 180°T
 - D. between the ship's heading and the bearing to the eye
- 301 879 Ref: Meteo, System, Hurricane, Dangerous C
 The dangerous semicircle of a typhoon in the Southern Hemisphere is that area _____.
- A. measured from due south clockwise 180°
 - B. measured from due south counterclockwise 180°
 - C. to the left of the storm's track
 - D. ahead of the typhoon measured from the storm's track to 90° on each side
- 302 1645 Ref: Meteo, System, Hurricane, Dangerous A
 Where is the dangerous semicircle located on a hurricane in the Southern Hemisphere?
- A. To the left of the storm's track
 - B. To the right of the storm's track
 - C. In the high pressure area
 - D. On the south side
- 303 1670 Ref: Meteo, System, Hurricane, Dangerous B
 Which condition indicates that you are in a hurricane's dangerous semicircle in the Northern hemisphere?
- A. A backing wind
 - B. A veering wind
 - C. A norther
 - D. A strong, gusty wind
- 304 1777 Ref: Meteo, System, Hurricane, Dangerous D
 Which statement is FALSE concerning the dangerous semicircle of a hurricane?
- A. The actual wind speed is increased by the forward movement of the storm along its track
 - B. the direction of the wind and the sea might carry a vessel directly into the storm's path
 - C. The seas are higher
 - D. The rain is heavier



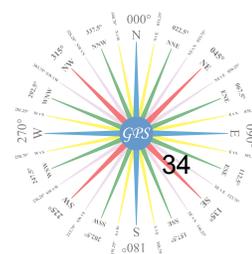
- 305 1886 Ref: Meteo, System, Hurricane, Dangerous A
 You are enroute from Puerto Rico to New York. A hurricane makes up and is approaching. If the wind veers steadily, this indicates that your vessel is _____.
 A. in the dangerous semicircle C. directly in the path of the storm
 B. in the navigable semicircle D. in the storm center
- 306 2027 Ref: Meteo, System, Hurricane, Dangerous C
 You can determine if your vessel's position is in the dangerous or navigable semicircle of a hurricane by _____.
 A. observing whether the wind is veering or backing
 B. plotting two or more recent storm positions from weather bulletins
 C. Both A and B
 D. Neither A nor B
- 307 1008 Ref: Meteo, System, Hurricane, Extratropical C
 The intensity of a hurricane as it reaches higher latitudes and cooler waters _____.
 A. Increases C. decreases
 B. remains the same D. None of the above
- 308 1552 Ref: Meteo, System, Hurricane, Extratropical B
 When a hurricane passes over colder water or land and loses its tropical characteristics, the storm becomes a(n) _____.
 A. high pressure area C. tropical storm
 B. extratropical low-pressure system D. easterly wave
- 309 212 Ref: Meteo, System, Hurricane, Eye D
 A vessel entering the eye of a hurricane should expect _____.
 A. moderating winds and heavy confused seas to strike his vessel from all directions
 B. the winds to increase to hurricane force and strike from a different direction as the eye passes
 C. the barometer to reach the lowest point
 D. All of the above
- 310 603 Ref: Meteo, System, Hurricane, Eye C
 In the relatively calm area near the hurricane center, the seas are _____.
 A. moderate but easily navigated
 B. calm
 C. mountainous and confused
 D. mountainous but fairly regular as far as direction is concerned
- 311 886 Ref: Meteo, System, Hurricane, Eye B
 The dense black cumulonimbus clouds surrounding the eye of a hurricane are called _____.
 A. spiral rainbands C. funnel clouds
 B. cloud walls D. cyclonic spirals
- 312 949 Ref: Meteo, System, Hurricane, Eye A
 The eye of a hurricane is surrounded by dense black cumulonimbus clouds which are called the _____.
 A. wall cloud C. bar
 B. nimbostratus cloud D. funnel
- 313 1669 Ref: Meteo, System, Hurricane, Eye D
 Which condition exists in the eye of a hurricane?
 A. Wind rapidly changing direction C. Towering cumulonimbus clouds
 B. A temperature much lower than that outside the eye D. An extremely low barometric pressure



- 314 1707 Ref: Meteo, System, Hurricane, Eye A
 Which kind of conditions would you observe as the eye of a storm passes over your vessel's position?
 A. Huge waves approaching from all directions, clearing skies, light winds, and an extremely low barometer
 B. Flat calm seas, heavy rain, light winds, and an extremely low barometer
 C. Flat calm seas, heavy rain, light winds, and high pressure
 D. Huge waves approaching from all directions, clearing skies, light winds, and high pressure
- 315 492 Ref: Meteo, System, Hurricane, Navigable D
 If it is impossible to avoid a hurricane in the Northern Hemisphere, the most favorable place to be when the storm passes is in _____.
 A. the dangerous semicircle
 B. the eye (center) of the storm
 C. that half of the storm lying to the right of the storm's path
 D. that half of the storm lying to the left of the storm's path
- 316 590 Ref: Meteo, System, Hurricane, Navigable A
 In the Northern hemisphere which semicircle of a hurricane is the navigable semicircle?
 A. Left C. Front
 B. Right D. Back
- 317 592 Ref: Meteo, System, Hurricane, Navigable A
 In the Northern Hemisphere, if your vessel is in a hurricane's navigable semicircle it should be positioned with the wind on the _____.
 A. starboard quarter, hold course and make as much speed as possible
 B. port bow, hold course and make as much speed as possible until the hurricane has passed
 C. port quarter, maintain course and make as much speed as possible
 D. starboard bow and heave to until the hurricane has passed
- 318 602 Ref: Meteo, System, Hurricane, Navigable B
 In the Northern Hemisphere, your vessel is believed to be in the direct path of a hurricane, and plenty of sea room is available. The best course of action is to bring the wind on the _____.
 A. starboard bow, note the course, and head in that direction
 B. starboard quarter, note the course, and head in that direction
 C. port quarter, note the course, and head in that direction
 D. port bow, note the course, and head in that direction
- 319 940 Ref: Meteo, System, Hurricane, Navigable A
 The edge of a hurricane has overtaken your vessel in the Gulf of Mexico, and the northwest wind of a few hours ago has shifted to the west. This is an indication that you are located in the _____.
 A. navigable semicircle C. low pressure area
 B. dangerous semicircle D. eye of the storm
- 320 1012 Ref: Meteo, System, Hurricane, Navigable C
 The left half of the storm is called the navigable semicircle because _____.
 A. the wind speed is decreased by the storm's forward motion
 B. the wind tends to blow vessels away from the storms track
 C. Both A and B
 D. Neither A nor B
- 321 1096 Ref: Meteo, System, Hurricane, Navigable D
 The navigable semicircle of a hurricane in the Northern Hemisphere is that area of the storm measured _____.
 A. from true north clockwise to 180°T
 B. from true north counterclockwise to 180°T
 C. from the bow counterclockwise to 180° relative
 D. from the direction of the storm's movement counterclockwise 180°



- 322 1098 Ref: Meteo, System, Hurricane, Navigable B
The navigable semicircle of a typhoon in the Southern Hemisphere is the area _____.
A. behind the typhoon, measured from 90° to 180° from each side of the storm's track
B. to the right of the storm's track
C. ahead of the typhoon, measured from the storm's track to 90° on each side
D. measured from due south, counterclockwise 180°
- 323 241 Ref: Meteo, System, Hurricane, Pressure C
Above-normal tide near the center of a hurricane may be caused by the _____.
A. high barometric pressure C. storm surge
B. jet stream D. torrential rains
- 324 1286 Ref: Meteo, System, Hurricane, Pressure D
Three or four feet of the total height of a storm surge in a hurricane can be attributed to _____.
A. an increase in temperature C. the wind velocity
B. an increase in the wave period D. the decrease in atmospheric pressure
- 325 1392 Ref: Meteo, System, Hurricane, Pressure D
What indicates the arrival of a hurricane within 24 to 36 hours?
A. The normal swell becoming lower and from a steady direction
B. Long bands of nimbostratus clouds radiating from a point over the horizon
C. The barometer drops 2 millibars between 1000 and 1600
D. Unusually good weather with above average pressures followed by a slow fall of 4 millibars in six hours
- 326 646 Ref: Meteo, System, Hurricane, Reports B
It is desirable that a vessel encountering hurricane or typhoon conditions sends weather reports to the closest meteorological service at least every _____.
A. hour C. 6 hours
B. 3 hours D. 8 hours
- 327 1589 Ref: Meteo, System, Hurricane, Reports D
When navigating coastwise and hurricane warnings are received, you should _____.
A. call the Coast Guard to request further information
B. call the NWS for further information
C. just begin to react and make plans
D. have battened down and be heading for the nearest port of refuge
- 328 990 Ref: Meteo, System, Hurricane, Season B
The hurricane season in the North Atlantic Ocean reaches its peak during the month of _____.
A. June C. November
B. September D. July
- 329 1584 Ref: Meteo, System, Hurricane, Season C
When is the peak of the hurricane season in the western North Pacific?
A. January through March C. July through October
B. April through June D. November through December
- 330 1425 Ref: Meteo, System, Hurricane, Speed C
What is the average speed of movement of a hurricane prior to recurvature?
A. 4 to 6 knots
B. 6 to 8 knots
C. 10 to 12 knots
D. 15 to 20 knots



331 1426 Ref: Meteo, System, Hurricane, Speed B
 What is the average speed of the movement of a hurricane following the recurvature of its track?
 A. 5 to 10 knots C. 40 to 50 knots
 B. 20 to 30 knots D. Over 60 knots

332 597 Ref: Meteo, System, Hurricane, Swell C
 In the Northern Hemisphere, the largest waves or swells created by a typhoon or hurricane will be located _____.
 A. in the southeast quadrant of the storm C. forward and to the right of its course
 B. directly behind the storm center D. behind and to the left of its course

333 689 Ref: Meteo, System, Hurricane, Swell D
 Ocean swells originating from a typhoon can move ahead of it at speeds near _____.
 A. 10 knots C. 30 knots
 B. 20 knots D. 50 knots

334 1453 Ref: Meteo, System, Hurricane, Swell C
 What is the first visible indication of the presence of a tropical cyclone or hurricane?
 A. Stratocumulus clouds or strange birds C. An exceptionally long swell
 B. Rain and increasing winds D. Dark clouds and the "bar" of the storm

335 482 Ref: Meteo, System, Hurricane, Track C
 Hurricanes may move in any direction. However, it is rare and generally of short duration when a hurricane in the Northern Hemisphere moves toward the _____.
 A. west or northwest C. southeast
 B. northeast D. north

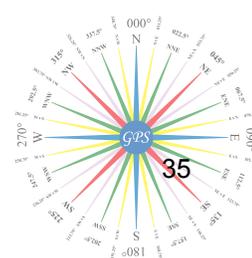
336 759 Ref: Meteo, System, Hurricane, Track A
 Recurvature of a hurricane's track usually results in the forward speed _____.
 A. increasing C. remaining the same
 B. decreasing D. varying during the day

337 1881 Ref: Meteo, System, Hurricane, Track D
 You are attempting to locate your position relative to a hurricane in the Northern Hemisphere. If the wind direction remains steady, but with diminishing velocity, you are most likely _____.
 A. in the right semicircle C. on the storm track ahead of the center
 B. in the left semicircle D. on the storm track behind the center

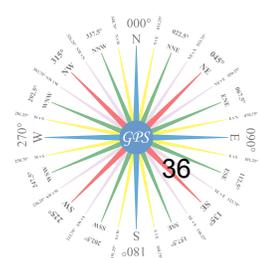
338 080 Ref: Meteo, System, Hurricane, Wind D
 A hurricane is characterized by winds of _____.
 A. up to 33 knots C. 48 to 63 knots
 B. 34 to 47 knots D. 64 knots or greater

339 081 Ref: Meteo, System, Hurricane D
 A hurricane moving northeast out of the Gulf passes west of your position. You could expect all of the following EXCEPT _____.
 A. higher than normal swells
 B. high winds
 C. winds veering from south, through west, to northwest
 D. gradual pressure gradient

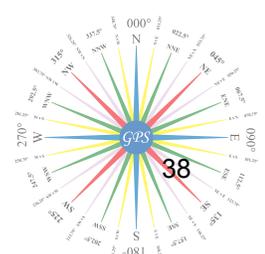
340 424 Ref: Meteo, System, Hurricane A
 Early indications of the approach of a hurricane may be all of the following EXCEPT _____.
 A. short confused swells
 B. gradually increasing white clouds (mare's tails)
 C. pumping barometer
 D. continuous fine mist-like rain



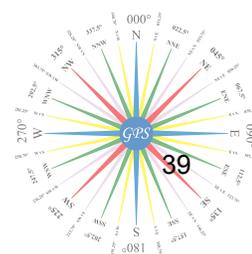
- 341 594 Ref: Meteo, System, Low, Circulation A
 In the Northern Hemisphere, an area of counterclockwise wind circulation surrounded by higher pressure is a _____.
 A. low C. warm front
 B. high D. cold front
- 342 606 Ref: Meteo, System, Low, Circulation A
 In the Southern Hemisphere winds in a low pressure system rotate in a _____.
 A. clockwise direction C. northerly direction
 B. northeasterly direction D. counterclockwise direction
- 343 1274 Ref: Meteo, System, Low, Circulation C
 The wind direction around a low pressure area in the Northern Hemisphere is _____.
 A. clockwise and inward C. counterclockwise and inward
 B. clockwise and outward D. counterclockwise and outward
- 344 520 Ref: Meteo, System, Low, Pressure A
 In a cyclone the lowest pressure is found in the _____.
 A. center C. warm front
 B. outer edge D. cold front
- 345 800 Ref: Meteo, System, Low, Pressure B
 Stormy weather is usually associated with regions of _____.
 A. high barometric pressure C. steady barometric pressure
 B. low barometric pressure D. changing barometric pressure
- 346 1554 Ref: Meteo, System, Low, Weather B
 When a low pressure area is approaching, the weather generally _____.
 A. improves C. remains the same
 B. worsens D. is unpredictable
- 347 1691 Ref: Meteo, System, Low, Weather B
 Which general weather conditions should you expect to find in a low pressure system?
 A. Fair weather C. Scattered clouds at high elevations
 B. Precipitation and cloudiness D. Gradual clearing and cooler temperatures
- 348 227 Ref: Meteo, System, Low, Wind C
 A vessel operating on the Great Lakes, and whose position is southeast of an eastward-moving storm center, would NOT experience _____.
 A. a falling barometer C. a northeast wind
 B. lowering clouds and drizzle D. rain or snow
- 349 489 Ref: Meteo, System, Low, Wind A
 If a weather bulletin shows the center of a low pressure system to be 100 miles due east of you, what winds can you expect in the Southern Hemisphere?
 A. South-southwesterly C. South-southeasterly
 B. North-northwesterly D. North-northeasterly
- 350 519 Ref: Meteo, System, Movement C
 If your weather bulletin shows the center of a low pressure area to be 100 miles due east of your position, what winds can you expect in the Northern Hemisphere?
 A. East to northeast C. North to northwest
 B. East to southeast D. South to southeast
- 351 543 Ref: Meteo, System, Movement D
 In North America the majority of the weather systems move from _____.
 A. north to south C. east to west
 B. south to north D. west to east



- 361 1369 Ref: Meteo, System, Storm, Tropical C
 What classification of tropical cyclone would have closed isobars, counter clockwise rotary circulation, and sustained winds between 34 and 63 knots?
 A. A tropical disturbance C. A tropical storm
 B. A tropical depression D. A hurricane
- 362 1492 Ref: Meteo, System, Storm, Tropical C
 What level of development of a tropical cyclone has a hundred mile radius of circulation, gale force winds, less than 990 millibars of pressure and vertically formed cumulonimbus clouds?
 A. A tropical disturbance C. A tropical storm
 B. A tropical depression D. A typhoon
- 363 470 Ref: Meteo, System, Storm D
 How can you estimate the position of a tropical storm's center?
 A. With a radio weather bulletin or weather fax
 B. using shipboard radar
 C. observe the wind direction and apply Buys Ballot's law
 D. All of the above
- 364 1641 Ref: Meteo, System, Storm D
 When your vessel is on or near the path of an approaching tropical storm the _____.
 A. wind direction remains steady C. barometer falls
 B. wind speed increases D. All of the above
- 365 1642 Ref: Meteo, System, Storm D
 When your vessel is on the storm track but behind the storm's center the _____.
 A. wind direction remains steady C. barometer rises
 B. wind speed decreases D. All of the above
- 366 1675 Ref: Meteo, System, Storm D
 Which condition would NOT indicate the approach of a tropical storm?
 A. Long, high swells C. Halos about the Sun or Moon
 B. Cirrus clouds D. Decrease in wind velocity
- 367 1556 Ref: Meteo, System, Tornadoes B
 When a tornado moves over the water from land it is called a _____.
 A. tornado C. hurricane
 B. waterspout D. cyclone
- 368 056 Ref: Meteo, System, Waves A
 A easterly wave is located 200 miles due west of your position, which is north of the equator. Where will the wave be in 24 hours?
 A. Farther away to the west C. In the same place
 B. Farther away to the east D. Closer and to the west
- 369 202 Ref: Meteo, System, Waves B
 A tropical wave is usually preceded by _____.
 A. tropical storms C. heavy rain and cloudiness
 B. good weather D. heavy seas
- 370 599 Ref: Meteo, System, Waves A
 In the Northern Hemisphere, what type of cloud formations would you expect to see to the west of an approaching tropical wave?
 A. Cumulus clouds lined up in rows extending in a northeast to southwest direction
 B. High altostratus clouds in the morning hours
 C. Cirrostratus clouds lined up in rows extending in a northeast to southwest direction
 D. Cirrostratus clouds lined up in rows extending in a north to south direction



- 371 656 Ref: Meteo, System, Waves C
Low pressure disturbances, which travel along the intertropical convergence zone, are called _____.
- A. permanent waves C. tropical waves
B. tidal waves D. tropical storms
- 372 1490 Ref: Meteo, System, Waves D
What kind of pressure systems travel in tropical waves?
- A. Subsurface pressure C. High pressure
B. Terrastatic pressure D. Low pressure
- 373 1491 Ref: Meteo, System, Waves A
What kind of weather would you expect to accompany the passage of a tropical wave?
- A. Heavy rain and cloudiness C. A tropical storm
B. Good weather D. Dense fog
- 374 1919 Ref: Meteo, System, Waves C
You are in the Northern Hemisphere and a tropical wave is located 200 miles due east of your position. Where will the wave be located 12 hours later?
- A. Farther away to the east C. Nearby to the east
B. In the same position D. Farther away to the west
- 375 1920 Ref: Meteo, System, Waves D
You are in the Northern Hemisphere and a tropical wave is located 200 miles due west of your position. Where will the wave be located 24 hours later?
- A. In the same place C. Closer and to the east
B. Closer and to the west D. Farther away to the west
- 376 300 Ref: Meteo, Weather D
As a licensed Merchant Marine Officer you are expected to _____.
- A. obtain a weather forecast before setting out from port
B. listen to weather forecasts on the radio while enroute
C. understand all broadcast weather warning information
D. All of the above
- 377 1358 Ref: Meteo, Weather A
Weather patterns in the Gulf Coast area of the United States are _____.
- A. those of a transition zone between tropical and a temperate area
B. those of a tropical region
C. extremely hot in summer
D. tropical over Florida and subtropical over the rest of the Gulf Coast area
- 378 685 Ref: Meteo, Weather, Broadcast C
NOAA VHF weather reports are continuously broadcast on VHF channels WX-1, WX-2 and WX-3 on a frequency of _____.
- A. 156.8, 157.1, 162.55 MHz C. 162.55, 162.40, 162.475 MHz
B. 162.55, 162.00, 171.5 KHz D. 2182, 2638, 2670 KHz
- 379 746 Ref: Meteo, Weather, Broadcast A
Plain language is usually used on marine weather _____.
- A. forecasts
B. observations
C. analyses
D. synoptic chart



380 1354 Ref: Meteo, Weather, Broadcast C
 Weather forecast messages are usually _____.
 A. given only to TV stations
 B. transmitted only by commercial broadcast stations
 C. broadcast in plain language
 D. broadcast immediately on VHF Channel 16 and 2182 kHz

381 1365 Ref: Meteo, Weather, Broadcast D
 What benefit is a weather bulletin to a mariner?
 A. It provides a legal reason to cancel a projected voyage.
 B. It allows the mariner to make long term weather forecasts.
 C. It is of little benefit since the weather changes frequently and rapidly.
 D. It gives the mariner time to prepare for weather changes.

382 1579 Ref: Meteo, Weather, Map, Drawing B
 When drawing a weather map and an isobar crosses a front, the isobar is drawn _____.
 A. perpendicular to the front
 B. kinked and pointing away from the low
 C. kinked and pointing towards the low
 D. kinked and pointing towards the high for a warm front only

383 303 Ref: Meteo, Weather, Map, Interpret D049NG B
 As shown in the illustration, which wind speeds are reported at position A?
 A. 10 knots C. 20 knots
 B. 15 knots D. 25 knots

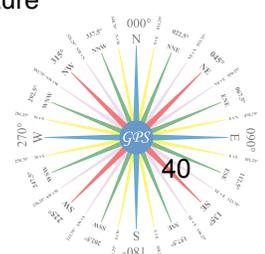
384 595 Ref: Meteo, Weather, Map, Interpret D014NG A
 In the Northern Hemisphere, an observer at point II in the weather system should experience a wind shift from the _____.
 A. southwest, clockwise to northwest C. northeast, counterclockwise to northwest
 B. northeast, clockwise to west-southwest D. east, counterclockwise to south-southwest

385 762 Ref: Meteo, Weather, Map, Interpret D049NG D
 Referring to the illustration, which wind speed is reported in position C?
 A. 3 knots C. 20 knots
 B. 10 knots D. 30 knots

386 1512 Ref: Meteo, Weather, Map, Interpret D049NG A
 What weather conditions would you expect to find at position A?
 A. Winds NW-W at 15 knots, partly cloudy, and slight seas
 B. winds SW-S at 20 knots, heavy rain, and rough seas
 C. Winds calm, light rain, and calm seas
 D. Winds NE-E at 20 knots, heavy rain, and rough seas

387 1843 Ref: Meteo, Weather, Map, Interpret B
 Widely spaced isobars on a weather map indicate _____.
 A. high winds C. ice, snow or frozen rain
 B. gentle breezes D. probability of tornados

388 2103 Ref: Meteo, Weather, Map, Interpret D013NG D
 Your vessel is enroute from Japan to Seattle and is located at position I on the weather map. You should experience which weather condition?
 A. Clear skies with warm temperatures C. Overcast skies with rising temperature
 B. Steady precipitation D. Thundershowers



389 716 Ref: Meteo, Weather, Map, Symbol A
 On a weather map, a large letter "H" means _____.
 A. a high pressure area with cool, dry air, and fair weather
 B. a high pressure area with warm, moist air, and inclement weather
 C. horse latitudes, with rough seas and strong winds
 D. a heavy squall line near the "H"

390 717 Ref: Meteo, Weather, Map, Symbol B
 On a working copy of a weather map, a cold front is represented by what color line?
 A. Red C. Alternating red and blue
 B. Blue D. Purple

391 718 Ref: Meteo, Weather, Map, Symbol C
 On a working copy of a weather map, a stationary front is represented by which color line?
 A. Red C. Alternating red and blue
 B. Blue D. Purple

392 719 Ref: Meteo, Weather, Map, Symbol A
 On a working copy of a weather map, a warm front is represented by what color line?
 A. Red C. Alternating red and blue
 B. Blue D. Purple

393 776 Ref: Meteo, Weather, Map, Symbol D042NG B
 Shown are the symbols used on radio facsimile weather charts. The symbol indicated at letter "I" represents _____.
 A. rain showers C. snow storms
 B. thunderstorms D. sand storms

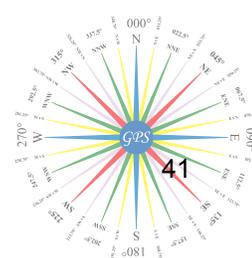
394 996 Ref: Meteo, Weather, Map, Symbol D042NG B
 The illustration shows the symbols used by radio facsimile weather charts. The symbol indicated at letter "F" represents a _____.
 A. maritime air mass C. convergence zone
 B. weather boundary D. squall line

395 997 Ref: Meteo, Weather, Map, Symbol D042NG D
 The illustration shows the symbols used on radio facsimile weather charts. The symbol indicated at letter "H" represents _____.
 A. ice C. rain
 B. snow D. hail

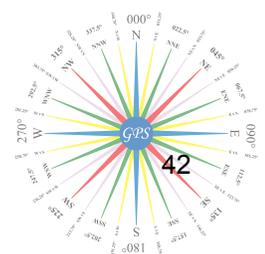
396 998 Ref: Meteo, Weather, Map, Symbol D042NG A
 The illustration shows the symbols used on radio facsimile weather charts. The symbol indicated at letter "K" represents a _____.
 A. hurricane C. convergence zone
 B. thunderstorm D. convergence line

397 999 Ref: Meteo, Weather, Map, Symbol D042NG D
 The illustration shows the symbols used on radio facsimile weather charts. The symbol indicated at letter "L" represents a _____.
 A. convergence line C. warm front
 B. maritime air mass D. convergence zone

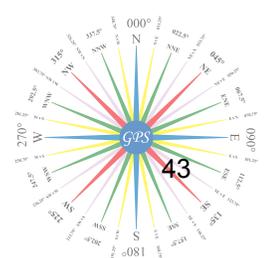
398 1000 Ref: Meteo, Weather, Map, Symbol D042NG B
 The illustration shows the symbols used on radio facsimile weather charts. The symbol indicated at letter "M" represents _____.
 A. rain C. hail
 B. snow D. ice



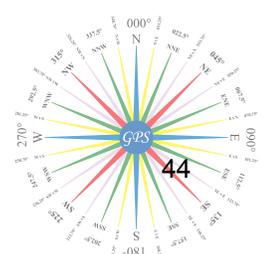
- 399 1001 Ref: Meteo, Weather, Map, Symbol D042NG C
 The illustration shows the symbols used on radio facsimile weather charts. The symbol indicated at letter "N" represents _____.
 A. hail C. rain
 B. freezing rain D. snow
- 400 1002 Ref: Meteo, Weather, Map, Symbol D042NG C
 The illustration shows the symbols used on radio facsimile weather charts. The symbol indicated at letter "P" represents _____.
 A. snow C. freezing rain
 B. hail D. sleet
- 401 1003 Ref: Meteo, Weather, Map, Symbol D042NG C
 The illustration shows the symbols used on radio facsimile weather charts. The symbol indicated at letter "Q" represents a _____.
 A. convergence zone C. convergence line
 B. squall line D. weather boundary
- 402 1230 Ref: Meteo, Weather, Map, Symbol D042NG D
 The symbols shown are used on radio facsimile weather charts. The symbol indicated at letter "G" represents a _____.
 A. weather boundary C. wide spread sandstorm
 B. thunderstorm D. severe, line squall
- 403 1231 Ref: Meteo, Weather, Map, Symbol D042NG A
 The symbols shown are used on radio facsimile weather charts. The symbol indicated at letter "O" represents _____.
 A. sandstorms C. snow
 B. thunderstorms D. rain showers
- 404 1738 Ref: Meteo, Weather, Map, Symbol D018NG C
 Which of the symbols shown represents a warm front?
 A. A C. C
 B. B D. D
- 405 1739 Ref: Meteo, Weather, Map, Symbol D018NG D
 Which of the symbols shown represents an occluded front?
 A. A C. C
 B. B D. D
- 406 403 Ref: Meteo, Weather, Observation B
 Despite weather predictions for continued good weather, a prudent mariner should be alert for all of the following, EXCEPT a sudden _____.
 A. drop in barometric pressure C. wind shift
 B. drop in temperature D. squall line
- 407 654 Ref: Meteo, Weather, Observation B
 Little or no change in the barometric reading over a twelve hour period indicates _____.
 A. stormy weather is imminent C. a defect in the barometer
 B. that present weather conditions will continue D. increasing wind strength
- 408 796 Ref: Meteo, Weather, Observation A
 Static on your AM radio may be _____.
 A. an indication of nearby thunderstorm activity C. of no meteorological significance
 B. an indication of "clearing" weather D. a sign of strong winds



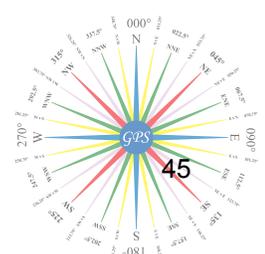
- 409 1724 Ref: Meteo, Weather, Observation D
 Which of the following is the most useful factor for predicting weather?
 A. The present reading of the barometer
 B. The previous reading of the barometer
 C. The difference in the barometric readings within the past 24 hours
 D. The rate and direction of change of barometric readings
- 410 1806 Ref: Meteo, Weather, Observation C
 Which weather element cannot be measured accurately while on board a moving vessel?
 A. Relative humidity C. Temperature
 B. Atmospheric pressure D. Wave period
- 411 318 Ref: Meteo, Weather, Reports D041NG C
 At 0600 ZT on 31 January, your position is LAT 00°49'S, LONG 84°27'E. You are preparing a weather report form, WS Form B-80. How should you encode the first three groups after the call sign if you estimate the wind?
 A. 30243, 90008, 30848 C. 31003, 99008, 30844
 B. 31003, 99049, 38427 D. 31063, 99049, 58427
- 412 319 Ref: Meteo, Weather, Reports D041NG B
 At 1200 ZT, on 31 August, your position is LAT 43°14'S, LONG 175°44'E. You are preparing a weather report form, WS Form B-80. How should you encode the first three groups after the call sign if you estimate the wind?
 A. 01003, 94314, 51757 C. 31123, 99432, 31754
 B. 31003, 99432, 31757 D. 31243, 94314, 31757
- 413 320 Ref: Meteo, Weather, Reports D041NG A
 At 1200 ZT, on 31 July, your position is LAT 24°33'N, LONG 173°05'W. You are preparing a weather report form, WS Form, B-80. How should you encode the first three groups after the call sign if you estimate the wind?
 A. 01003, 99245, 71731 C. 31243, 99245, 71731
 B. 01243, 92433, 71731 D. 31003, 92433, 71730
- 414 321 Ref: Meteo, Weather, Reports D041NG D
 At 1800 ZT on 31 October, your position is LAT 24°50'N, LONG 92°37'W. You are preparing a weather report form, WS Form B-80. How should you encode the first three groups after the call sign if you estimate the wind?
 A. 31123, 99929, 70249 C. 31243, 99249, 70926
 B. 31183, 99249, 79237 D. 01003, 99248, 70926
- 415 1357 Ref: Meteo, Weather, Reports C
 Weather observations provided by each weather station include all of the following except _____.
 A. temperature C. predicted weather for the next twelve hours
 B. visibility D. barometric pressure and change in the last three hours
- 416 1601 Ref: Meteo, Weather, Reports A
 When reporting wind direction, you should give the direction in _____.
 A. true degrees C. relative degrees
 B. magnetic compass degrees D. isobaric degrees
- 417 1634 Ref: Meteo, Weather, Reports C
 When within 300 miles of a named tropical storm or hurricane, it is standard practice to send weather reports every _____.
 A. 8 hours C. 3 hours
 B. 6 hours D. hour



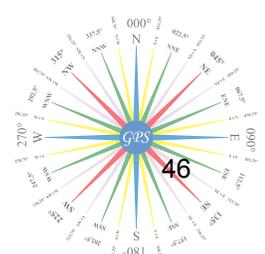
- 418 1833 Ref: Meteo, Weather, Reports A
 While taking weather observations, you determine that the wind is blowing from the northeast. You would record the wind direction in the weather log as _____.
 A. 045° C. 135°
 B. 090° D. 225°
- 419 1834 Ref: Meteo, Weather, Reports D
 While taking weather observations, you determine that the wind is coming from the west. In the weather log, you would record the wind direction as _____.
 A. 000° C. 180°
 B. 090° D. 270°
- 420 1910 Ref: Meteo, Weather, Reports D041NG D
 You are hove to in a hurricane on a heading of 328°T. The wind is from 030° true at 119 knots. How should this be encoded on the weather report form under Nddff?
 A. 80312 C. 83099
 B. 83011 D. 80399
- 421 1965 Ref: Meteo, Weather, Reports D041NG D
 You are preparing a weather report form, WS Form B-80. The dry bulb thermometer reads 30°F (-1°C), and the wet bulb thermometer reads 28°F (-2°C). Using the Ships Code Card, how would you encode the air temperature groups in the report?
 A. 10011, 2003/ C. 11011, 2124/
 B. 11300, 2124/ D. 11011, 2104/
- 422 1966 Ref: Meteo, Weather, Reports D041NG C
 You are preparing a weather report form, WS Form B-80. The dry bulb thermometer reads 34°F, and the wet bulb thermometer reads 31°F. Using the ships code card, how would you encode the air temperature groups in the report?
 A. 10340, 2127/ C. 10011, 2104/
 B. 10111, 2104/ D. 10340, 2031/
- 423 1967 Ref: Meteo, Weather, Reports D041NG B
 You are preparing a weather report form, WS Form B-80. The dry bulb thermometer reads 54°F, and the wet bulb thermometer reads 50°F. How would you encode the air temperature groups in the report?
 A. 1054/, 2050/ C. 1054/, 2047/
 B. 10122, 2008/ D. 054//, 047//
- 424 1968 Ref: Meteo, Weather, Reports D041NG A
 You are preparing a weather report form, WS Form B-80. The dry bulb thermometer reads 78°F, and the wet bulb thermometer reads 75°F. How would you encode the air temperature groups in the report?
 A. 10256, 2023/ C. 00256, 0023/
 B. 10780, 2074/ D. 10256, 2074/
- 425 1969 Ref: Meteo, Weather, Reports D041NG B
 You are preparing a weather report form, WS Form B-80. The sky is overcast, and the anemometer indicates that the apparent wind is from 144° relative at 8 knots. You are on course 162°T at 15 knots. How should you encode group Nddff?
 A. 91521 C. 81408
 B. 83322 D. 01615
- 426 1970 Ref: Meteo, Weather, Reports D041NG D
 You are preparing a weather report form, WS Form B-80. Three-quarters of the sky is covered with clouds, and the anemometer indicates that the apparent wind is from 226° relative at 17.7 knots. You are on course 020°T at 8 knots. How should you encode group Nddff?
 A. 80208 C. 72318
 B. 72218 D. 62324



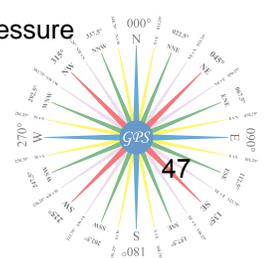
- 427 1971 Ref: Meteo, Weather, Reports D041NG C
 You are preparing a weather report form, WS Form B-80. Your position is LAT 64°42'N, LONG 02°28'W. How would this be encoded?
 A. 90647, 90024 C. 99647, 70025
 B. 0647N, 00025 D. 9064N, 9025W
- 428 1972 Ref: Meteo, Weather, Reports D041NG C
 You are preparing a weather report form, WS Form B-80. One-half of the sky is covered with clouds, and the anemometer indicates that the apparent wind is from 340° relative at 14 knots. You are on course 307°T at 12.6 knots. How should you encode group Nddff?
 A. 53414 C. 42205
 B. 54013 D. 43013
- 429 1973 Ref: Meteo, Weather, Reports D041NG A
 You are preparing a weather report form. Twenty-five percent of the sky is covered with clouds, and the anemometer indicates that the apparent wind is from 062° relative at 13 knots. You are on course 238°T at 22 knots. How should you encode group Nddff?
 A. 20220 C. 30219
 B. 20613 D. 32413
- 430 2029 Ref: Meteo, Weather, Reports A
 You can follow the approach of a dangerous cyclonic storm by inspecting _____.
 A. a newspaper, a weather map, a weather fax, or a weather forecast
 B. the National Weather Service Observing Handbook No.1, Marine Surface Observations
 C. the Coast Pilot or Sailing Directions
 D. the sky overhead
- 431 2030 Ref: Meteo, Weather, Reports B
 You can follow the approach of a dangerous cyclonic storm by inspecting _____.
 A. the National Weather Service Observing Handbook No.1, Marine Surface Observations
 B. a weather fax
 C. the Coast Pilot or Sailing Directions
 D. the sky overhead
- 432 457 Ref: Meteo, Wind B
 Generally speaking, in the Northern Hemisphere, when winds are blowing from between SE and SW the barometric reading _____.
 A. makes no change at all
 B. is somewhat lower than it would be for winds from a northern quadrant
 C. is uncertain and may fluctuate by increasing and decreasing
 D. is somewhat higher than it would be for winds from the northern quadrant
- 433 1160 Ref: Meteo, Wind C
 The probability of a sudden wind may be foretold by _____.
 A. a partly cloudy sky C. a fast approaching line of dark clouds
 B. an overcast sky D. the formation of cumulus clouds in the sky
- 434 335 Ref: Meteo, Wind, Angle D
 At what angle to the isobars do surface winds blow over the open sea?
 A. About 90° C. About 25°
 B. About 50° D. About 15°
- 435 542 Ref: Meteo, Wind, Apparent A
 In most cases, the direction of the apparent wind lies between the bow and _____.
 A. the direction of the true wind C. the beam on the windward side
 B. true north D. the beam on the lee side



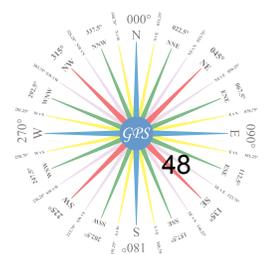
- 436 819 Ref: Meteo, Wind, Apparent C
 The apparent wind is zero when the true wind is _____.
 A. zero C. from astern and equal to the ship's speed
 B. from ahead and equal to the ship's speed D. from astern and is twice the ship's speed
- 437 820 Ref: Meteo, Wind, Apparent D
 The apparent wind's speed can be zero, but only when two conditions are present. One condition is that the true _____.
 A. wind must be on the beam C. wind must be from dead ahead
 B. wind's speed must be zero D. wind's speed equals the ship's speed
- 438 1255 Ref: Meteo, Wind, Apparent B
 The velocity of the apparent wind can be less than the true wind and from the same direction, if certain conditions are present. One condition is that the _____.
 A. ship's speed is more than the true wind velocity C. true wind is on the beam
 B. true wind is from dead astern D. true wind is from dead ahead
- 439 1256 Ref: Meteo, Wind, Apparent D
 The velocity of the apparent wind can be more than the true wind, and come from the same direction, if certain conditions are present. One condition is that the _____.
 A. ship's speed must be less than the true wind velocity
 B. true wind must be from dead astern
 C. true wind velocity must be faster than the ship's speed
 D. true wind must be from dead ahead
- 440 1277 Ref: Meteo, Wind, Apparent C
 The wind speed and direction observed from a moving vessel is known as _____.
 A. coordinate wind C. apparent wind
 B. true wind D. anemometer wind
- 441 836 Ref: Meteo, Wind, Beau C
 The Beaufort scale is used to estimate the _____.
 A. wind direction C. wind speed
 B. percentage of cloud cover D. barometric pressure
- 442 1657 Ref: Meteo, Wind, Beau C
 Which Beaufort force indicates a wind speed of 65 knots?
 A. Beaufort force 0 C. Beaufort force 12
 B. Beaufort force 6.5 D. Beaufort force 15
- 443 1754 Ref: Meteo, Wind, Beau D
 Which scale is used to estimate wind speed by observing sea conditions _____.
 A. Metric scale C. Coriolis scale
 B. Wind scale D. Beaufort scale
- 444 250 Ref: Meteo, Wind, Cause D
 Air circulation is caused or affected by _____.
 A. the rotation of the earth on its axis
 B. convection currents caused by differences in radiant heating between equatorial and polar regions
 C. mountain ranges
 D. All of the above
- 445 908 Ref: Meteo, Wind, Cause C
 The direction of prevailing winds in the Northern hemisphere is caused by the _____.
 A. magnetic field at the North Pole C. Earth's rotation
 B. Gulf Stream D. Arctic cold fronts



- 446 909 Ref: Meteo, Wind, Cause C
 The direction of the southeast trade winds is a result of the _____.
 A. equatorial current C. rotation of the earth
 B. humidity D. change of seasons
- 447 476 Ref: Meteo, Wind, Current C
 How long would a steady wind need to blow in order to create a wind driven current?
 A. 2 hours C. 12 hours
 B. 6 hours D. 18 hours
- 448 1275 Ref: Meteo, Wind, Deflection A
 The wind flow from the horse latitudes to the doldrums is deflected due to _____.
 A. Coriolis force C. differing atmospheric pressures
 B. the mid-latitude, semi-permanent high D. the prevailing westerlies
- 449 839 Ref: Meteo, Wind, Direction C
 The best estimate of the wind direction at sea level can be obtained from observing the direction of the _____.
 A. cloud movement C. waves
 B. vessel heading D. swells
- 450 1600 Ref: Meteo, Wind, Direction B
 When recording the wind direction in the weather log, you would report the _____.
 A. direction the wind is blowing toward C. duration of the maximum gust of wind
 B. direction the wind is blowing from D. wind chill factor
- 451 1844 Ref: Meteo, Wind, Direction D
 Wind direction may be determined by observing all of the following EXCEPT _____.
 A. low clouds C. whitecaps
 B. waves D. swells
- 452 062 Ref: Meteo, Wind, Gale B
 A gale is characterized by a wind speed of _____.
 A. 10 to 20 knots C. 48 to 63 knots
 B. 34 to 47 knots D. 64 to 83 knots
- 453 084 Ref: Meteo, Wind, Kata C
 A katabatic wind blows _____.
 A. up an incline due to surface heating
 B. in a circular pattern
 C. down an incline due to cooling of the air
 D. horizontally between a high and a low pressure area
- 454 1386 Ref: Meteo, Wind, Land A
 What generally occurs when the land is cooler than the nearby water?
 A. A land breeze C. A norther
 B. A sea breeze D. A prevailing westerly
- 455 676 Ref: Meteo, Wind, Monsoon C
 Monsoons are characterized by _____.
 A. light, variable winds with little or no humidity
 B. strong, gusty winds that blow from the same general direction all year
 C. steady winds that reverse direction semiannually
 D. strong, cyclonic winds that change direction to conform to the passage of an extreme low pressure system



- 456 1543 Ref: Meteo, Wind, Monsoon A
 What wind reverses directions seasonally?
 A. Monsoon winds C. Jet stream
 B. Hooked trades D. Secondary winds
- 457 011 Ref: Meteo, Wind, Northers D
 A "Norther" in the Gulf of Mexico is _____.
 A. a wind shift to the north accompanied by a drop in temperature
 B. a forcible northerly wind of at least 20 knots
 C. a strong northerly wind that generally occurs between November and March
 D. All of the above
- 458 1807 Ref: Meteo, Wind, Northers A
 Which weather system produces strong cold winds called "Northers" during the winter months in the Gulf of Mexico?
 A. An anticyclone C. A cyclone
 B. A high pressure system D. Both A and B
- 459 185 Ref: Meteo, Wind, Pressure C
 A steep barometric gradient indicates _____.
 A. calms C. strong winds
 B. light winds D. precipitation
- 460 551 Ref: Meteo, Wind, Pressure A
 In reading a weather map, closely spaced pressure gradient lines would indicate _____.
 A. high winds C. calm or light winds
 B. high overcast clouds D. fog or steady rain
- 461 910 Ref: Meteo, Wind, Pressure C
 The direction of the surface wind is _____.
 A. directly from high pressure toward low pressure
 B. directly from low pressure toward high pressure
 C. from high pressure toward low pressure deflected by the earth's rotation
 D. from low pressure toward high pressure deflected by the earth's rotation
- 462 973 Ref: Meteo, Wind, Pressure C
 The greater the pressure difference between a high and a low pressure center, the _____.
 A. dryer the air mass will be C. greater the force of the wind will be
 B. cooler the temperature will be D. warmer the temperature will be
- 463 1845 Ref: Meteo, Wind, Pressure B
 Wind velocity varies _____.
 A. directly with the temperature of the air mass C. inversely with the barometric pressure
 B. directly with the pressure gradient D. inversely with the absolute humidity
- 464 106 Ref: Meteo, Wind, Sea D
 A local wind which occurs during the daytime and is caused by the different rates of warming of land and water is a _____.
 A. foehn C. land breeze
 B. chinook D. sea breeze
- 465 159 Ref: Meteo, Wind, Sea B
 A sea breeze is a wind _____.
 A. that blows towards the sea at night
 B. that blows towards an island during the day
 C. caused by cold air descending a coastal incline
 D. caused by the distant approach of a hurricane



466 1809 Ref: Meteo, Wind, Sea C
 Which wind results from a land mass cooling more quickly at night than an adjacent water area?
 A. Coastal breeze C. Land breeze
 B. Sea breeze D. Mistral

467 1772 Ref: Meteo, Wind, Surge A
 Which statement concerning storm surges on the Great Lakes is FALSE?
 A. They are common along the deeper areas of the lakes.
 B. They cause rapid differences in levels between one end of the lake and the other.
 C. The greatest water level difference occurs when the wind is blowing along the longitudinal axis of the lake.
 D. If the wind subsides rapidly, a seiche effect will most likely occur.

468 187 Ref: Meteo, Wind, Tehuantepecer A
 A strong, often violent, northerly wind occurring on the Pacific coast of Mexico, particularly during the colder months, is called _____.
 A. Tehuantepecer C. Norther
 B. Papagayo D. Pampero

469 231 Ref: Meteo, Wind, Veer/Back B
 A weather forecast states that the wind will commence backing. In the Northern Hemisphere, this would indicate that it will _____.
 A. shift in a clockwise manner C. continue blowing from the same direction
 B. shift in a counterclockwise manner D. decrease in velocity

470 232 Ref: Meteo, Wind, Veer/Back A
 A weather forecast states that the wind will commence veering. In the Northern Hemisphere this indicates that the wind will _____.
 A. shift in a clockwise manner C. continue blowing from the same direction
 B. shift in a counterclockwise manner D. increase in velocity

471 588 Ref: Meteo, Wind, Veer/Back A
 In the Northern Hemisphere a wind is said to veer when the wind _____.
 A. changes direction clockwise, as from north to east, etc.
 B. changes direction violently and erratically
 C. remains constant in direction and speed
 D. changes direction counterclockwise as, from south to east, etc.

472 593 Ref: Meteo, Wind, Veer/Back B
 In the Northern Hemisphere, a wind that shifts counterclockwise is a _____.
 A. veering wind C. reverse wind
 B. backing wind D. chinook wind

473 1368 Ref: Meteo, Wind, Veer/Back D049NG A
 What change in the wind direction could be expected at position "D" if the low were moving northeasterly?
 A. Veering to the west
 B. Backing to the north
 C. Veering to the north
 D. Backing to the east

474 1513 Ref: Meteo, Wind, Veer/Back A
 What will a veering wind do?
 A. Change direction in a clockwise manner in the Northern Hemisphere
 B. Circulate about a low pressure center in a counterclockwise manner in the Northern Hemisphere
 C. Vary in strength constantly and unpredictably
 D. Circulate about a high pressure center in a clockwise manner in the Southern Hemisphere

