

# Terminology - Definitions

## Aviation Terminology / Abbreviations:

AGL – “Above Ground Level” – Distance between the aircraft and the ground

AFB – “Air Force Base”

ADIZ – “Air Defense Identification Zone” - The area of airspace over land or water, extending upward from the surface, within which the ready identification, the location, and the control of aircraft are required in the interest of national security.

“Airframe” – The fuselage, booms, nacelles, cowlings, fairings, airfoil surfaces (including rotors but excluding propellers and rotating airfoils of engines), and landing gear of an aircraft and their accessories and controls

“Air Speed” – The speed of an aircraft relative to its surrounding air mass

ALS – “Approach Light System” – An airport lighting facility which provides visual guidance to landing aircraft by radiating light beams in a directional pattern by which the pilot aligns the aircraft with the extended centerline of the runway on his/her final approach for landing

AMSL / ASL – “Above Mean Sea Level” / “Above Sea Level” – Distance between the aircraft and MSL – “Mean Sea Level”

Approach – To fly towards a point; a basic guidance mode, providing lateral guidance, longitudinal guidance, and vertical guidance to a point at an operator selected groundspeed and radar altitude; See Also: waypoint approach, ILS approach, rendezvous approach. There are several types, primarily “Precision” vs. “Non-Precision”.

ATC – “Air Traffic Control” – A service operated by appropriate authority to promote the safe, orderly and expeditious flow of air traffic

Bearing – The horizontal direction to or from any point, usually measured clockwise from true north, magnetic north, or some other reference point through 360 degrees.

Ceiling – The heights above the earth’s surface of the lowest layer of clouds or obscuring phenomena that is reported as "broken," "overcast," or "obscuration," (BOO) and not classified as "thin" or "partial". Or, in reference to aircraft performance, the maximum altitude an aircraft is able to reach and maintain

CFIT – “Controlled Flight into Terrain” – A collision whereby an airworthy aircraft, under pilot control, inadvertently flies into terrain, an obstacle, or water.

ELT – “Emergency Locator Transmitter” – A radio transmitter attached to the aircraft structure which operates from its own power source on 121.5 MHz & 243.0 MHz. It aids in locating downed aircraft by radiating an audio tone 2-4 times/second.

FAR – “Federal Aviation Regulations” – Are federal rules under which flight operations are conducted.

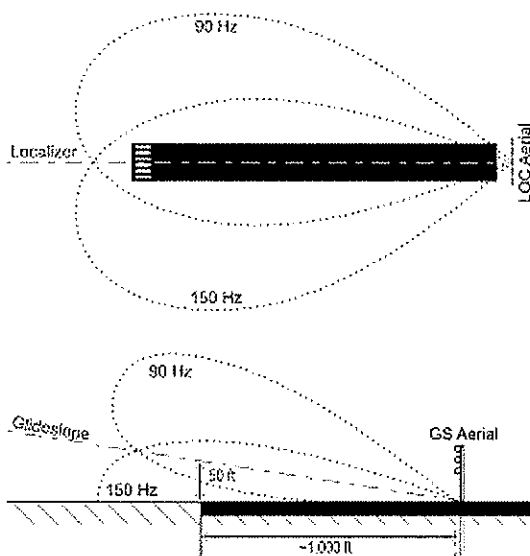
GPS – “Global Positioning System” – Global Navigation Satellite System that provides reliable positioning, navigation and timing services to worldwide users on a continuous basis in all weather, day and night, anywhere on or near the Earth.

IFR – “Instrument Flight Rules” – Rules governing the procedures for conducting instrument flight. Also a term by pilots and controllers to indicate a type of flight plan.

ILS – “Instrument Landing System” – A ground based instrument approach system that provides precision guidance to an aircraft approaching and landing on a runway, using a combination of radio signals and, in many cases, high-intensity lighting arrays to enable a safe landing during “Instrument Meteorological Conditions”, such as low ceilings or reduced visibility due to fog, rain, or blowing snow. There are both precision and non-precision approaches depending on the combination of these two tools. There are also visual aids; Outer Marker; Middle Marker & Approach Lights.

LOC – “Localizer” – The horizontal/lateral component of an Instrument Landing System – It provides runway centerline guidance to aircraft. When used alone, a Localizer creates a non-precision approach.

GLIDESLOPE – The vertical component of an Instrument Landing System – It provides runway alignment regarding altitude as the aircraft approaches the designated landing zone. Combined w/ a localizer they create a precision approach.



MLS – “Microwave Landing System” – An all weather, precision landing system originally intended to replace or supplement the ILS. Operational advantages include a wide selection of channels to avoid interference with other nearby airports, excellent performance in all weather and a small “footprint” at the airports. There are very few of these, usually where there is a Military presence.

RADAR APPROACH – Air Traffic Controller vectors the aircraft all the way through the approach using only radio prompts to the pilot. The aircraft only needs a functioning radio for this procedure. Again there are precision PAR (Controller give vertical and horizontal guidance), and non-precision, ASR “Surveillance” approaches that only use horizontal navigation guidance.

SIGMET – “Significant Meteorological Advisory” – A weather advisory issued concerning weather significant to the safety of all aircraft. SIGMET advisories cover severe & extreme turbulence; severe icing, and widespread dust or sand storms that reduce visibility to less than 3 miles.

TCAS – “Traffic alert and Collision Avoidance System” – An aircraft collision avoidance system designed to reduce the incidence of mid-air collisions between aircraft. It monitors the airspace around an aircraft for other aircraft equipped with a corresponding active transponder, independent of air traffic control, and warns pilots of the presence of other transponder-equipped aircraft which may present a threat of mid-air collision.

TFR – “Temporary Flight Restriction” – A geographically-limited, short-term, airspace restriction, typically in the United States around significant and specific events, organizations or individuals.

UHF – “Ultra High frequency” – The range of electromagnetic waves with frequencies between 300 MHz and 3 GHz (3,000 MHz). Higher MHz frequencies are Microwave and one band lower frequencies are VHF.

VFR – “Visual Flight Rules” – Rules that govern the procedures for conducting flights under visual conditions. The term “VFR” is also used in the US to indicate weather conditions that are equal to or greater than minimum VFR requirements. In addition, it is used by pilots and controllers to indicate type of flight plan.

VHF – “Very High Frequency” – Radio frequencies range from 30 MHz to 300 MHz.

VOR – “VHF OmniRange Navigation System” – A ground-based electronic navigation aid transmitting very high frequency navigational signals, 360 degrees in azimuth, orientated from magnetic north. Used for the basis for navigation in the National Airspace System.

VORTAC – “VHF OmniRange Radio / Tactical Air Navigation”: It’s basically a VOR with additional military applications. It can also be mobile on air-to-air refueling and on aircraft carriers

## **Medical Terminology:**

### **Directional Terms:**

MIDLINE – Imaginary vertical line that divides the body into right and left halves

LATERAL – Moving away from the Midline

MEDIAL – Moving towards the Midline

ANTERIOR – The Front of the Body

POSTERIOR – The Back of the Body

SUPERIOR – Towards the Head

INFERIOR – Towards the Foot

### **Anatomical Position / Postures:**

ERECT – Person in the upright position, usually standing

SUPINE – Lying on his/her back (Flat)

PRONE – Lying on his/her stomach (Flat)

FOWLERS – Sitting, legs extended out straight w/ torso upright / vertical

LATERAL RECUMBENT – Lying on one side of the other “Left Lateral”

### **Direction / Movement Terms:**

Abduction – Movement away (Abducted) from the Midline

Adduction – Movement toward (Added to) the Midline

Flexion – The act of bending a joint

Extension – The act of straightening a joint

### **Normal Vital Signs:**

Pulse / Heart Rate (beats/min)

Adult 60-80

Child (5-12 yrs) 60-120

Child (1-5 yrs) 80-150

Infant (120-150)

Respiratory Rate (breaths/min)

Adult 12-20

Child (5-12 yrs) 16-25

Child (1-5 yrs) 20-30

Infants (20-40)

Newborns (Average 44/min)

Blood Pressure (Systolic / Diastolic)

Normal (90-120 / 60 – 80)

Hypotension (Too Low) <90 / <60

Hypertension “HTN” (>120 / > 100)

Varies w/ age

### **IV (Intravenous Lines) & Solutions**

Peripheral IV Site – (PIV) usually initiated in the arms below the elbow – Usually in the antecubital

External Jugular – (PIV) found in the neck

Common Solutions

Normal Saline Solution (NSS) 0.9% Sodium Chloride

5% Dextrose in Water (D5W) (Sugar Water)

Lactated Ringers / Ringers Lactate (LR / RL)

## **Abbreviations:**

A&O X 3 (or X4) – Pt alert to Person; Place; Time; Events  
AAA – Abdominal Aortic Aneurysm  
Acute – Sudden, Recent, Rapid Onset  
BSA – Body Surface Area (usually relating to burns)  
CHF – Congestive Heart Failure  
CHI – Closed Head Injury  
CHRONIC – Ongoing, Gradual Onset  
CSF – Cerebrospinal Fluid  
CVA – Cerebrovascular Accident – Stroke  
DKA – Diabetic Ketoacidosis  
EMS – Emergency Medical Services  
EKG / ECG – Electrocardiogram  
EPI-DURAL Hematoma – Type of Head Bleed  
ETT – Endo-Tracheal Tube “Intubated” / “Intubation”  
GCS – Glasgow Coma Scale  
IABP – Intra Aortic Balloon Pump  
ICH – Intracranial Hemorrhage  
LOC – Loss of Consciousness or Level of Consciousness  
MI – Myocardial Infarction (Heart Attack) – AMI – “Acute Myocardial Infarction”  
PEA – Pulseless Electrical Activity – Beats appear on monitor but there’s no pulse  
PERL – Pupils Equal and React to Light  
RSI – Rapid Sequence Intubation – Process of sedating and paralyzing a patient to secure their airway  
SAH – Sub-Arachnoid Hemorrhage  
SaO<sub>2</sub> – Pulse Oximeter reading as listed in vital signs  
STEMI – (S-T Elevation Myocardial Infarction) – Specific type of Heart Attack  
SUB-DURAL Hematoma – Type of Head Bleed  
VENTED – Pt requires outside respiratory assistance via BVM or Automatic Ventilator

## **Common Medications:**

Ativan (Lorazepam) – Anti-Anxiety Medication  
Coumadin (Warfarin Sodium) – Anticoagulant Medication  
Dopamine – Generally used as a Vasopressor “Increases Blood Pressure”  
Heparin - Anticoagulant  
Integrilin (Eptifibatide) – Anti-Platelet medication used for AMI’s  
Lasix (Furosemide) – Loop Diuretic  
Levophed (norepinephrine) – Vasopressor “Increases Blood Pressure”  
Nitroglycerine (Nitro) – Vasodilator used to treat Angina



# Communications Terminology

1. This is the altitude of the aircraft as it relates directly to the topography below.
  - A. AGL
  - B. MSL
  - C. AFB
  - D. FAR
  
2. Air speed is:
  - A. how fast the wind is blowing
  - B. the speed the aircraft is moving in relation to the ground below
  - C. the speed of an aircraft relative to its surrounding air mass
  - D. the speed of the wind forced downward from the rotor blades of a helicopter
  
3. What is MSL?
  - A. Mean Sea Level
  - B. Medical Surveillance Liability
  - C. A measure of the average height of the ocean's surface
  - D. Both A & C
  
4. The horizontal direction to or from any point, usually indicated as degrees from 001 to 360.
  - A. Ceiling
  - B. Bearing
  - C. Airframe
  - D. Altitude
  
5. A device attached to the Airframe that provides its own power source and is used to locate downed aircraft is:
  - A. Localizer
  - B. GPS
  - C. ELT
  - D. Altimeter
  
6. A navigation satellite system that provides reliable positioning and timing services worldwide on or near the Earth is:
  - A. Localizer
  - B. Global Positioning System (GPS)
  - C. Military Targeting Locator (MTL)
  - D. Microwave Locating System (MLS)
  
7. Rules governing the procedures for conducting certain flights where the pilot can't visualize geographic references
  - A. IFR
  - B. VFR
  - C. ILS
  - D. LOC
  
8. A ground based approach system that utilized a Localizer for non-precision as well as a Glidescope, at certain locations, for precision approaches at designated landing areas is a(n):
  - A. LOC
  - B. GPS
  - C. MLS
  - D. ILS
  
9. Geographically limited, short term restrictions around certain events, organizations or individuals is called a:
  - A. IFR
  - B. VFR
  - C. TFR
  - D. VOR
  
10. Rules governing the procedures for conducting flights under visual conditions
  - A. IFR
  - B. VFR
  - C. ILS
  - D. LOC

11. The normal pulse rate for an adult is:
- A. 60-80 BPM
  - B. 100-120 BPM
  - C. 60-120 BPM
  - D. 120-150 BPM
12. Common fluids used in IVs by most EMS practitioners are:
- A. Normal Saline
  - B. D5W
  - C. Lactated Ringers
  - D. All of the Above
13. AAA stands for:
- A. Abdominal Aortic Aneurysm
  - B. American Aero Medical Association
  - C. Association of American Aviators
  - D. American Automobile Association
14. If a patient is said to be A&O X 4 then they are:
- A. Alert to danger
  - B. Alert & Oriented to person, place, time & events
  - C. Awake & Ordinary
  - D. Already operated on 4 times
15. Another name for a Stroke, which is similar to a Heart Attack, but in the brain is:
- A. Cerebrovascular Accident "CVA"
  - B. Acute Cerebrovascular Infarction
  - C. Transient Ischemic Alert "TIA"
  - D. "The walking death"
16. If a patient has a blockage in their heart blood vessels, this could be called a:
- A. Heart Attack
  - B. AMI – Acute Myocardial Infarction
  - C. STEMI – ST Elevation Myocardial Infarction
  - D. All of the Above
17. IABP is an abbreviation for a device that pumps the patient's blood from outside the body called:
- A. Ischemic Accident Blasts Platelets
  - B. Intravascular Aortic Ballistic Pump
  - C. Intra Aortic Balloon Pump
  - D. Intracranial Algorithm to Battle Pneumonia
18. All of the following involve some type of a head bleed, EXCEPT:
- A. Epidural Hematoma
  - B. Sub-Dural Hematoma
  - C. Intracranial Hemorrhage
  - D. Diabetic Ketoacidosis
19. All of the following are commonly used for cardiac patients, EXCEPT:
- A. Heparin
  - B. Integrilin
  - C. Nitroglycerine
  - D. None of the Above
20. If you see the abbreviation ETT, you can assume that it stands for:
- A. Endotracheal Tube
  - B. The patient is intubated
  - C. The patient is probably on a vent or being "Vented"
  - D. All of the Above

# Communications Terminology

## ANSWER SHEET

Name: \_\_\_\_\_  
Org: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_  
State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Country: \_\_\_\_\_  
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Circle the appropriate letter

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| 1  | A. B. C. D. E. | 11 | A. B. C. D. E. |
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| 10 | A. B. C. D. E. | 20 | A. B. C. D. E. |

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*Please retain your CE acknowledgement to be submitted with your recertification*