



## SEARCH AND RESCUE DATA COLLECTION

### International Search & Rescue Incident Database KYEM Form 400 (ISRID) INSTRUCTIONS



The purpose of the new KyEM Form 400, “SEARCH AND RESCUE MISSION NOTIFICATION AND REPORT,” is to enable the Division to track all SAR missions with much more accuracy and detail. What we have learned over a number of years, is that the reporting mechanism that we have used is good, but the amount of information critical to tracking missions, is lacking both in detail and consistency of terminology. Very little is provided to determine its usefulness in future missions.

By providing accurate details, the Division eventually will be able to produce a “KY Lost Person Behavior” database detailing where a person may be found based on a history of KY SAR missions. This information can only be provided by those agencies who actually perform the missions – you. By compiling all of the details of searches over a long period of time, patterns will be demonstrated in a lost person’s behavior. This predictability can and will greatly enhance the planning of SAR missions as well as reduce the search time which could be the difference in life and death to the subject.

This new Form 400 will be completed online, can be printed and added to the other mission notes for a complete file. Details of the mission can be reviewed for details and can also be used in training as scenarios. The new Form 400 may seem lengthy and tedious at first, but with some understanding and practice, it can be done quickly and render much more detail. The learning curve may be slow at first, but the end product will be well worth the effort.

With that said, I would like to thank Michelle Hamilton of Pendleton Co., who provided the technical means to make this effort a reality. Her work to assist the KY Division of Emergency Management better serve the citizens of the Commonwealth is greatly appreciated.

All of the work and final product of this project is dedicated to every person in the Commonwealth who has participated in a SAR mission. It is because of you that many families are still together, and because of your training and dedication, the vast majority of subjects were found within the initial response period and found unharmed.

I would also like to thank Robert Koester who provided the form as a means to track SAR missions. Robert is a Type 1 incident commander, instructor for the Virginia Department of Emergency Management, and past president of the Virginia Search and Rescue Council (15 years). Robert has also worked for the United States Coast Guard, National Aeronautics and Space Administration, National Park Service, and Federal Emergency Management Agency. The International Search & Rescue Incident Database (ISRID) is a product of Robert’s vision to increase the capabilities of every SAR team.

In the Service of the Commonwealth,

Don Franklin

## FORM 400 INSTRUCTIONS

### ADMINISTRATIVE INFORMATION

**Submit by Email** clicking this box will forward the form to the KYEM SAR Collection Data location. NOTE: to save a digital copy for your records you will have to “save as” and rename the file. Otherwise, you will save the completed data on the template form.

**Print Form** clicking this box will print a copy of the form and the information provided

**Reset Form** clicking this box will delete all information you have provided without being saved

#### **Incident Status**

**ACTIVE:** A mission has been started and is currently being worked

**CLOSED:** A mission report has already been filed and this is the final report closing the incident

**OPEN:** This is a continuation of an active mission that may have been suspended or limited effort, i.e., patrolling the banks of a river

**OPEN TO CLOSED:** A single report from start to finish (no other reports have been filed)

**Lead Agency:** Name of the agency responsible for the SAR effort

**Incident #:** The State incident number provided by the KyEM Duty Officer

**Mission #:** The mission number as it is listed at the local dispatch center (911) or other agency

**Incident Date:** The date the mission started

**Incident Time 24hr:** The time the mission started in military time

**Prepared by:** The name of the individual completing the form

**Organization/Agency:** The name of the agency of which the form preparer is a member

**Email address:** The email of the individual completing the form (can be the agency email address)

**Phone #:** The phone number of the individual who completed the form (can be the agency phone #)

## **Incident Type**

**SEARCH:** search for a missing, lost, or overdue person whose whereabouts is unknown  
**RESCUE:** the location of the subject is known, but has to be rescued  
**BEACON:** personal locator or ELT (aircraft)  
**RECOVERY:** recovery of a body  
**TRAINING:** a full-scale SAR exercise  
**DISASTER:** SAR mission during a disaster, i.e., swift water rescue from flood waters  
**FUGITIVE:** *NOT PERMITTED BY KRS*  
**FALSE REPORT:** agency paged out and no actual search is necessary  
**STANDBY:** agency activated in preparation for missions, but no mission is assigned  
**ATTEMPT TO LOCATE:** the subject is mobile and no specific area or direction of travel known, i.e., Alzheimer's patient driving  
**EVIDENCE:** assist law enforcement in searching for evidence by means of diving or dragging operations (KRS 39F.170(2))  
**OTHER-SPECIFY:** any "other" incident type needs to be specified in the narrative at the end of the form

## **Incident Environment**

**AIR:** any mission involving aviation  
**LAND:** any mission on land  
**WATER:** any mission on any body of water

**COUNTY:** the name of the county where the incident occurred

**COMMUNITY:** the name of the city/town where the incident occurred

**STATE:** the State where the incident occurred (all States included for EMAC missions)

**REGION:** the KYEM Region number

**PRIMARY RESPONSE AREA?:** is your agency working within your primary response area?

## **INCIDENT INFORMATION**

**Subject Category:** what the subject was doing that caused the incident

**HIKER:** someone who intentionally wanders on foot for recreational purposes  
**HUNTER:** someone who is "game" hunting for animals; includes trappers  
**CHILD:** anyone less than the age of 16 (for data purposes)

**DEMENTIA:** any person with an organic brain disorder, i.e., Alzheimer's disease

**DESPONDENT:** anyone suffering from mental state, i.e., depression, anguish, etc.

**ABDUCTION:** anyone who is lost due to the cause of another person, i.e., kidnapping, molestation, etc.

**AIRCRAFT:** any aircraft reported missing or Emergency Locator Transmitter (ELT) activated

**ANGLER:** anyone fishing from the bank or any watercraft

**ATV:** anyone driving or riding on an All-Terrain-Vehicle, i.e., 4-wheeler, 6-wheeler, etc.

**AUTISTIC:** anyone diagnosed with this disorder

**CAMPER:** anyone participating in a camping event

**CAVER:** anyone lost inside a cave

**CLIMBER:** anyone participating in vertical ascension, i.e., rock climbing, etc.

**GATHERER:** anyone who is searching for natural growing products, i.e., mushrooms, dry-land fish, etc.

**HORSEBACK:** anyone participating in horseback riding

**MENTAL ILLNESS:** anyone diagnosed with schizophrenia, bipolar, or any other psychotic disorder

**MENTAL RETARDATION/ID:** anyone diagnosed with mental retardation

**MOUNTAIN BIKER:** anyone involved in the recreational use of mountain bikes

**BASE JUMPER:** anyone who parachutes from Buildings, Antennae, Spans (bridges), or Earth (cliffs)

**EXTREME SPORTS:** anyone involved in extreme racing (Ironman), canyoneering (kloofing), regaining (extreme orienteering), or dog racing

**MOTORCYCLE:** anyone riding a 2-wheeled, motorized vehicle, i.e., motocross, dirt bike, etc.

**RUNNER:** anyone participating in running, jogging, speed-walking, etc.

**SKIER – ALPINE:** anyone participating in downhill skiing

**SKIER – NORDIC:** anyone using skis as a means of transportation, i.e., cross-country skiing, etc.

**SNOWBOARDER:** anyone involved in snowboarding, including lift, backcountry, in-bounds, and out-of-bounds

**SNOWMOBILER:** anyone driving or riding a snowmobile

**SNOWSHOER:** anyone using snowshoes as a means of locomotion

**SUBSTANCE ABUSE:** anyone under the influence of a substance, typically alcohol or illicit substance

**URBAN ENTRAPMENT:** anyone entrapped in a collapsed structure due to earthquake, tornado, hurricane, explosion, mudslide, landslides, or rising flood water

**VEHICLE:** anyone who was last seen driving a vehicle that went missing between one point and another, i.e., stranded, out of gas, over an embankment, wash away by flood water, etc.

**VEHICLE – 4WD:** anyone participating in activities involving a 4-wheel drive vehicle for recreational use

**VEHICLE ABANDONED:** anyone who has left a vehicle for the purpose of getting gas, vehicle is snow-bound, wedged on rocks, etc.

**WATER – POWERED:** any motorized water vehicle, whether gas or electric

**WATER – NON-POWERED:** any non-motorized water vehicle, i.e., canoe, kayak, sailboat, etc.

**WATER – PIW-FLAT:** (Person In Water) water is stagnant (not moving), i.e., pond, lake, etc.

**WATER – PIW-CURRENT:** (Person In Water) water is moving, i.e., creek, river, etc.

**WATER – PIW-FLOOD:** (Person In Water) flood waters; stagnant or current

**WORKER:** anyone who is employed for outdoor work, i.e., forestry, Fish & Wildlife, ranchers, farmers, surveyors, wilderness firefighters, etc.

**SUBJECT SUB-CATEGORY:** any additional information to clarify Subject Category, i.e., VEHICLE ABANDONED; FLAT TIRE (may be left blank if the Subject Category is clear)

**SUBJECT ACTIVITY:** what the subject was supposed to be doing at the time the mission was reported (activity may be unknown)

**CONTACT METHOD:** how was the subject found to be missing

**REPORTED MISSING:** subject(s) reported missing to a central dispatch center by family or friends

**VEHICLE FOUND:** the subjects' vehicle was found and no contact with the subject

**REGISTRATION CARD:** subject(s) was registered at a location with no further contact (overdue). This is common in parks and many cave systems

**ELT/PLB/EPIRB:** Emergency Locator Transmitter (aviation)/Personal Locator Beacon (land based)/ Emergency Position Indicating Radio Beacon (marine based)

**SATELLITE ALERTING TECHNOLOGY:** an alerting device using satellite technology

**SUBJECT CELL PHONE:** subject used cell phone to report he/she was lost

**RADIO:** subject used radio (2-way, i.e., walkie-talkie, family radio, amateur (HAM) radio, etc.)

**DISTRESS SIGNAL:** any means of signaling for help, i.e., smoke signal, 3 gun-shots, shouting, etc.

**IPP:** Initial Planning Point; point that is initially used to plan the search incident

**PLS:** Point Last Seen; last place the subject was actually seen by a witness (may be revised during search)

**LKP:** Last Known Point; location of a significant clue, i.e., parked car, wallet, that places the missing subject (LKP can be revised during search)

### **IPP CLASSIFICATION**

**AIRPORT:** any location where aircraft may take off or land, including airstrips

**BEACON:** a reported electronic signal received, i.e., personal location device, or ELT

**BUILDING:** any man-made structure used as an employment location, or storage including out-buildings, unattached garages, etc. Does not include residential area

**FIELD:** any open area

**RADAR:** any reported radar sighting

**RESIDENCE:** any area in or around the subject's home or residential location; including yard, garden, etc.

**ROAD:** any road including dirt roads, forestry roads, etc.

**SIGNAL:** any visible or audible attempt by the subject to show their location, whistle, shout, smoke, etc.

**TRAIL:** any path to give purposeful direction

**TRAILHEAD:** the starting point of a trail; usually marked

**UNKNOWN:** neither witnesses nor clues

**VEHICLE:** abandoned vehicle; includes wrecked vehicles and disabled vehicles

**WATER:** any body of water, moving or stagnant

**WOODS:** any area that includes trees over a significant area; includes forests

**OTHER – SPECIFY:** anything not listed and must be listed in the narrative

**N/A:**

#### **IPP COORDINATES\***

**N/S (Lat):** latitude (north/south)

**E/W (Long):** longitude (east/west)

**FORMAT:** determined by the GPS (can be changed) or map being used

**DD:** decimal degrees DDD.DDDDD°

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#### **ECO-REGION DOMAIN**

**TEMPERATE:** characterized by rainfall that generally results in forests and four seasons  
(*all of KY is temperate*)

#### **ECO-REGION DIVISION**

**220 HOT CONTINENTAL:** anywhere in KY that is not in the mountainous region  
(predominately west of I-75)

**M220 HOT CONTINENTAL:** anywhere in KY that is in the mountainous region  
(predominately east of I-75)

#### **POPULATION DENSITY**

**WILDERNESS:** an area essentially undisturbed and uninhabited by humans

**RURAL:** an area relating to the countryside, marked by farming or raising livestock, which is sparsely populated; it is often mixed with open spaces and woods

**SUBURBAN:** a residential area on the edge or border of a city or a large urban area; it also will have associated retail and commercial areas; primary routes or roads; green areas and larger parks are common

**URBAN:** an area where the natural environment has been almost completely modified by humans; an area that is densely inhabited, significantly developed with structures, and where travel is greatly facilitated by roads; mass transit is available

**WATER:** An area of open water (pond, lake, reservoir, river, bay, sea, ocean; even in the densest of urban areas, open water retains its essential characteristics

## **TERRAIN**

**MOUNTAINOUS:** any terrain having mountains, i.e., Appalachians

**HILLY:** any terrain having rolling hills

**FLAT:** any terrain that is relatively flat; no hills or mountains

**WATER:** any larger body of water, i.e., lake, reservoir

## **LAND COVER**

**BARE:** no trees or brush

**LIGHT:** brush, briars, or generally overgrown area with ground vegetation

**MODERATE:** brush, briars, or generally overgrown area with ground vegetation and sparse to moderate trees

**HEAVY:** considerable amount of brush, briars, and thick ground vegetation or heavily wooded areas where vision is limited

**WATER:** any larger body of water, i.e., lake, reservoir

## **LAND OWNER**

**PRIVATE:** privately owned property

**COMMERCIAL:** property owned by a company or corporation

**COUNTY:** county property

**STATE:** property of the Commonwealth of KY

**NPS:** National Park Service

**USFS:** United States Forest Service

**BLM:** Bureau of Land Management

**MILITARY:** any military owned property, i.e., military installation (Ft. Knox, Ft. Campbell, etc.)

**NATIVE/TRIBAL:** any property owned by tribal communities, i.e., reservations, etc.

**NAVIGABLE WATER:** All waters which are currently used or were used in the past or may be susceptible to use in interstate or foreign commerce, including all waters subject to the ebb and flow of the tide

**OTHER – SPECIFY:** any other ownership must be described in the narrative

## **WEATHER**

**CLEAR:** no clouds

**PARTLY CLOUDY:** some clouds

**OVERCAST:** sky completely covered by clouds  
**FOGGY:** ground is completely or partially covered by fog  
**DRIZZLE:** very light rain with no definable raindrops  
**SHOWERS:** raining on and off  
**RAIN:** continuous rain  
**HAIL:** hail at times during the mission  
**SLEET:** frozen rain  
**FLURRIES:** light snow  
**SNOW:** continuous snow  
**BLIZZARD:** heavy snow that impair vision  
**SMOKEY:** ground covered by smoke, i.e., caused by forest fire  
**WINDY:** continuous wind or periodic wind; heavy in nature

**TEMP. (Max):** highest temperature during the mission (72° listed as 075)

**TEMP. (Min):** lowest temperature during the mission (5° below 0 is listed as -05)

**WIND (mph):** average wind speed during mission (23 mph listed as 023)

**SNOW ON GROUND:** was there snow on the ground during the search

#### **SNOW**

**NONE:** no snowfall during mission  
**FLURRY:** slight snow during mission; no accumulation  
**LIGHT:** falling snow during mission with little accumulation  
**MEDIUM:** falling snow during mission with moderate accumulation  
**HEAVY:** falling snow during mission with heavy accumulation

#### **LIGHT**

**DAY:** daylight hours with enough light to see distances  
**NIGHT:** darkness  
**NIGHT (BRIGHT MOON):** after sunset, but enough light reflected off of moon to provide adequate light to see some distance  
**DAY + NIGHT:** mission extends from day to night, or night into day  
**OBSCURED:** cannot clearly see distances do to haze or light blocked by clouds  
**TWILIGHT:** the light from the sky between full night and sunrise or between sunset and full night

## **SUBJECT INFORMATION**

**SOLO SUBJECT:** single subject

**GROUP STAYED TOGETHER:** a group of subjects that stayed together as one

**GROUP SEPARATED/DIFFERENT OUTCOMES:** the group of subjects separated causing the mission to be divided into different search strategies

**GROUP TYPE**

**M:** single male

**F:** single female

**MM:** multiple males

**MF:** group includes both males and females

**FF:** multiple females

**AC:** at least one adult ( $\geq 21$ ) and one child ( $\leq 16$ )

(NOTE: For groups: if different outcomes, complete for each person. Use additional forms if required) If there are more than 4 in the group, use multiple forms.

**SUBJECT:** each subject is listed individually

**AGE:** in years

**SEX:** M/F

**LOCAL:** is the subject from the area where he/she got lost

**WEIGHT:** in pounds

**HEIGHT:** in inches (5' 9" would be 69")

**BUILD**

**THIN:** lean; skinny; bone structure is visible

**MEDIUM:** bone structure is not visible, but no "love handles"

**HEAVY:** bone structure is not visible; love handles; belly protruding

**OVERWEIGHT:** large belly; larger than body structure should be

**OBESE:** very large; grossly overweight

**FITNESS**

**EXCELLENT:** subject excels at the activity he/she is performing (hiking, etc.); survivability is great

**GOOD:** subject can perform activity with occasional rest periods; survivability is good

**FAIR:** subject can perform activity with multiple rest periods; survivability is questionable

**POOR:** subject is not capable of performing activity; not survivable

**UNKNOWN:** fitness condition is not known/reported

**N/A:** subject does not actively participate in activity (wheel-chair, carrier, etc.)

**EXPERIENCE**

**EXCELLENT:** subject is very familiar with conditions required to perform activity and has performed the activity many times; survivability is great

**GOOD:** subject is familiar with conditions required to perform activity and has performed the activity on occasion; survivability is good

**FAIR:** subject is somewhat familiar with conditions required to perform activity, but has little, if any experience; survivability is questionable

**POOR:** subject is not familiar with condition required to perform activity and has no experience; not survivable

**UNKNOWN:** experience is not known/reported

**N/A:** subject depends on other's experience (child, infant, wheel-chair)

#### **EQUIPMENT**

**EXCELLENT:** subject is well-equipped for the activity, and equipped to handle unexpected conditions; survivability is great

**GOOD:** subject has proper equipment for the activity, and may have enough to handle unexpected conditions; survivability is good

**FAIR:** subject has some equipment, but not enough to handle unexpected conditions; survivability is questionable

**POOR:** subject does not have proper equipment for activity; not survivable

**UNKNOWN:** proper equipment is not known/reported

**N/A:** subject depends on others for equipment (child, infant)

#### **CLOTHING**

**EXCELLENT:** subject is well-dressed for the activity, and equipped to handle unexpected conditions; survivability is great

**GOOD:** subject has proper clothing for the activity, and may have enough to handle unexpected conditions; survivability is good

**FAIR:** subject has some clothing, but not enough to handle unexpected conditions; survivability is questionable

**POOR:** subject does not have proper clothing for activity; not survivable

**UNKNOWN:** proper clothing is not known/reported

**N/A:** subject depends on others for clothing (child, infant)

#### **SURVIVAL**

**EXCELLENT:** subject has necessary experience, equipment, clothing, and knowledge to survive even in unexpected conditions

**GOOD:** subject has some experience, equipment, clothing, and knowledge to survive even in unexpected conditions

**FAIR:** subject has little experience, equipment, clothing, and knowledge to survive and probably cannot survive unexpected conditions

**POOR:** subject has no experience, equipment, clothing, nor knowledge to survive

**UNKNOWN:** proper equipment is not known/reported

**N/A:** subject is totally dependent on others (child, infant)

#### **MENTAL**

**NORMAL:** no mental issues

**MED:** subject demonstrates mild mental illness; depression, ADD, 1<sup>st</sup> stage Alzheimer's, etc.

**MOD:** subject demonstrates moderate mental illness; despondent, possibly suicidal, etc.

**SEVERE:** advanced case of mental illness; final states of Alzheimer's, etc.

## TIME LOG

**LAST SEEN:** date last seen (format YYYY-MM-DD; 2010-08-05)

**TIME:** time last seen (24 hr clock, i.e., 01:17, 16:24)

**SAR NOTIFIED:** date the mission was activated (format YYYY-MM-DD; 2010-08-05)

**TIME:** time mission was activated (24 hr clock, i.e., 01:17, 16:24)

**SUBJECT LOCATED:** date subject was located (format YYYY-MM-DD; 2010-08-05)

**TIME:** time the subject was located (24 hr clock, i.e., 01:17, 16:24)

**INCIDENT CLOSED:** date the mission was closed (format YYYY-MM-DD; 2010-08-05)

**TIME:** time the mission was closed (24 hr clock, i.e., 01:17, 16:24)

**TOTAL TIME LOST:** total amount of time the subject was missing; time last seen to subject located (format in hours and minutes, i.e., 03:27, 36:54)

**TOTAL SEARCH TIME:** time SAR notified to subject located (format in hours and minutes, i.e., 03:27, 36:54)

## INCIDENT OPERATIONS

### DESTINATION COORDINATES\*

**N/S (Lat):** latitude (north/south)

**E/W (Long):** longitude (east/west)

**FORMAT:** determined by the GPS (can be changed) or map being used

**DD:** decimal degrees DDD.DDDDD°

**DM:** degrees, minutes, seconds DDD.MM'SS.S"

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**DIRECTION OF TRAVEL (TRUE):** direction of travel shown by compass bearing, i.e., 90°, 247°, etc.

**DOT HOW DETERMINED:** Direction of Travel (DOT) was determined by

**INTENDED DESTINATION:** subject was known to be traveling to a specific destination

**PHYSICAL CLUE:** evidence showed direction of travel (debris, trash, etc.)

**SIGHTING:** subject was seen by a witness in his/her direction of travel

**TRACKS:** subject's tracks (sign) was noted by qualified search member

**TRACKING/TRAILING:** SAR Dog Team following scent  
**OTHER – SPECIFY:** other means must be noted in narrative

**REVISED PLS/LKP COORDINATES 1\*:** list any changes in Point Last Seen/Last Known Point

**N/S (Lat):** latitude (north/south)

**E/W (Long):** longitude (east/west)

**FORMAT:** determined by the GPS (can be changed) or map being used

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**REVISED HOW DETERMINED:** how was a change determined

**PHYSICAL CLUE:** evidence showed direction of travel (debris, trash, etc.)

**TRAIL REGISTER:** the subject completed a trail register (written documentation showing presence, destination, and time)

**SIGHTING:** subject was seen by a witness in his/her direction of travel

**TRACKS:** subject's tracks (sign) was noted by qualified search member

**OTHER – SPECIFY:** other means must be noted in narrative

**REVISED DOT:** list the new direction of travel (true: compass bearing, i.e., 90°, 247°, etc.)

**DECISION POINT COORDINATES\*:** a decision point is where the subject makes a decision to change direction (active), such as a fork in a trail or change direction (passive), such as missing a turn or fork in a trail, reading the map upside-down, etc. Either way, there is a mistake in navigation

**N/S (Lat):** latitude (north/south)

**E/W (Long):** longitude (east/west)

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**TYPE OF DECISION POINT:** decision points may not be known until interviewing subject(s)

**OTHER:** specify in narrative

**SADDLE:** a saddle is a dip or low point between two areas of higher ground. A saddle is not necessarily the lower ground between two hilltops; it may be simply a dip or break along a level ridge crest. If you are in a saddle, there is high ground in two opposite directions and lower ground in the other two directions. A saddle is normally represented as an hourglass on a topo map

**SHORTCUT:** subject take what he/she believes there is a shorter route  
**TRAIL ANIMAL:** path or trail made by wildlife's use  
**TRAIL CROSSED:** trail intersection  
**TRAIL LOST:** trail became less obvious and seems to "disappear"  
**TRAIL SOCIAL:** subject met someone or a group and travelled with them  
**TRAIL TURNOFF:** directional change in the trail

**DECISION POINT A FACTOR:** the decision by the subject to change direction contributed to being lost

## INCIDENT OUTCOME

**INCIDENT OUTCOME:** how the subject was found (unless still open or suspended)

**CLOSED BY SEARCH:** subject found by SAR members

**CLOSED BY PUBLIC:** subject found by someone from the general public (family/friends included)

**CLOSED BY SELF-RESCUE:** subject walked out or self-rescued

**CLOSED BY RESCUE:** subject was located and needed assistance to get out

**CLOSED BY INVESTIGATION:** information determined there was no search necessary

**FALSE REPORT:** subject reported missing when he/she was actually not lost; not an intentional report

**FRIEND/FAMILY:** friends/family knew the subject's location

**IN FACILITY:** subject was in or near facility (residence, workplace, park etc.)

**STAGED:** intentional false report

**TRANSPORTED:** subject was picked up by vehicle

**OPEN/SUSPENDED:** subject not found, but search efforts are limited, i.e., checking river banks, etc.)

**OTHER:** must be listed in narrative

**SCENARIO:** what actually caused the SAR incident

**AVALANCHE:** this includes mudslides, rock falls, etc.

**CRIMINAL:** subject was being pursued by law enforcement

**DESPONDENT:** subject suffers from depression, anxiety, etc.; may be suicidal

**EVADING:** subject does not want to be found; hiding

**INVESTIGATIVE:** subject was investigating (looking) at or for something, i.e., camping location, waterfall, cave, etc.

**LOST:** subject was unable to determine his/her location and find their way out

**MEDICAL:** subject suffered from a condition, existing or onset, that rendered him/her unable to walk out

**DROWNING:** subject's cause of death was drowning; may involve near-drowning incidents

**OVERDUE:** subject did not return at an expected time

**STRANDED:** subject was unable to walk out due to other issues, i.e., break down, wrecked vehicle, etc.

**TRAUMA:** subject suffered physical injury and was unable to walk out

**SUSPENSION REASONS:** why the search was suspended (use Ctrl and click to choose multiple reasons)

**LACK OF CLUES:** no clues to indicate the subject is missing or in the area of search

**LACK OF RESOURCES:** insufficient resources to continue search in a safe manner

**WEATHER:** weather conditions render the mission unsuccessful or unsafe

**HAZARDS:** area of search is hazardous to safety of searchers

**LACK OF SURVIVABILITY:** probability of subject's survival is zero or nearly zero

**INVESTIGATIVE INFORMATION:** investigation shows subject is no longer in search area or shows other factors as to why the search no longer needs to continue

**# SUBJECTS:** number of subjects located

**# WELL:** number of subjects found in good condition; without injury or illness

**# INJURED:** number of subjects found with injury sustained during their activity or during their attempt to walk out

**# DOA:** number of subjects found deceased

**# SAVED:** number of subjects that possibly would not have survived had they not been found

**FIND COORDINATES\*:** where the subject(s) was found (use multiple forms for multiple subject found in different locations)

**N/S (Lat):** latitude (north/south)

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**DISTANCE IPP:** distance from Initial Planning Point (straight line)

**BEARING T:** compass bearing (true) from IPP to find location

**FIND FEATURE:** feature description of where the subject(s) was found

**BRUSH:** undergrowth, i.e., high weeds, etc.

**CANYON:** a deep, narrow valley with steep sides; often with a stream or river flowing through it

**CAVE:** an underground passage including mines

**DRAINAGE:** a natural or man-made route for water to flow; permanent or conditional

**FIELD:** open area of ground with minimal vegetation

**FORREST/WOODS:** area covered with trees and/or undergrowth

**ICE/SNOW:** area covered in ice and/or snow (does not include frozen lakes, ponds – see “rock”)

**STRUCTURE:** any building

**ROAD:** any path that may be travelled by a vehicle such as a car or truck (not ATV’s)

**ROCK:** area of bare rock and ice (solid water); pavement is classified under roads

**SCRUB:** sparse trees as found in desert areas

**TRAIL:** any path travelled by foot or ATV

**VEHICLE:** any motorized vehicle, i.e., car, truck, motorcycle, bicycle, ATV, etc.

**LAKE/POND/WATER:** any body of water not frozen (see “rock”)

**WETLAND:** swampy area that naturally stays wet

**YARD:** area immediately near the subject’s residence (does not include farmland or fields)

**FEATURE SECONDARY:** list any secondary features where the subject(s) was found

**DETECTABILITY:** probability of detection based on investigation, terrain, clues, etc.

**EXCELLENT:** probability of detection is very high

**GOOD:** probability of detection is high

**FAIR:** probability of detection is 50/50

**POOR:** limited or no probability of detection

**MOBILITY/RESPONSIVE:** subject’s condition after located

**MOBILE/RESPONSIVE:** subject can travel on their own and is coherent

**MOBILE/UNRESPONSIVE:** subject can travel on their own, but is not coherent

**IMMOBILE/RESPONSIVE:** subject cannot travel on their own, but is coherent

**IMMOBILE/UNRESPONSIVE:** subject cannot travel on their own and is not coherent (includes fatalities)

**LOST STRATEGY:** what the subject did after discovering they were lost

**BACKTRACKING:** attempt to follow the path from which they came; reverse path

**DIRECTION SAMPLING:** tried to travel in a different direction (shortcut or what seemed to be the correct direction); random traveling

**DIRECTION TRAVELLING:** traveled cross-country in a perceived correct direction often crossing paths, power-lines, railroad tracks, etc.

**DOWNHILL:** traveled downhill in search of road or stream

**EVASIVE:** attempt to hide

**FOLK WISDOM:** follow the “natural” signs, i.e., moss always grows on the north side of trees, etc.

**FOLLOWED TRAVEL AID:** followed a compass, GPS, etc.

**LANDMARK:** followed a landmark, i.e., water tower, radio tower, road, etc.

**NOTHING:** subject stopped traveling because of not knowing what to do or fear of doing something

**PANIC:** lost mental control and traveled randomly out of fear; usually fast and uncontrolled with no determined direction

**ROUTE SAMPLED:** subject uses an intersection of trails as a base, traveling some distance down each trail in search of something familiar

**STAYED PUT:** a conscientious decision to stop traveling and allow searchers to find them

**VIEW ENHANCEMENT:** attempt to find an area of greater elevation to see landmarks

**SEEK CELL SIGNAL:** attempt to travel to an area of better cell-phone service

**OTHER – SPECIFY:** must be listed in the narrative

**MOBILITY (HRS):** how long did the subject travel

**TRACK OFFSET (yds):** the shortest distance (in yards) from the location the subject was found to the closest linear feature (Linear Feature: includes trails, power lines, railroads, pipeline right of way, and other similar linear features; roads and drainages will be included for this measurement)

**ELEVATION CHANGE FROM IPP:** Initial Planning Point

**UP:** subject was found at a higher elevation than the IPP (uphill)

**DOWN:** subject was found at a lower elevation than the IPP (downhill)

**FEET:** difference in feet (find location elevation minus IPP elevation, or IPP elevation minus find location elevation)

## **MEDICAL/RESCUE INFORMATION**

### **SUBJECT**

**STATUS:** subject’s medical/rescue condition after rescue

**WELL:** good condition; normal

**INJURED:** subject incurred an injury during time lost or during rescue

**DOA:** Dead on Arrival; subject found deceased or expired during rescue

**NOT FOUND:** subject was not found

**MECHANISM:** cause of the subject’s injury

**ANIMAL ATTACK:** subject was attacked by wild or domestic animal

**AVALANCHE:** includes mudslides, rock avalanche, etc. (not rock fall)

**BITE/STING:** subject was bitten or stung, i.e., snake, bee (not an animal attack)

**ENVIRONMENT:** includes temperature, elevation, ease of travel, etc.  
**FALL-GROUND LEVEL:** subject was injured by tripping, stumbling while walking  
**FALL-HEIGHT:** subject was injured by falling off of something or from a height distance  
**GUNSHOT:** accidental or intentional (see "HUMAN ATTACK")  
**HUMAN ATTACK:** subject was attacked by another human (no gunshot)  
**MEDICAL CONDITION:** pre-existing condition or onset of a condition  
**ROCK FALL:** single or low number of rock falling (not an avalanche)  
**TREE FALL:** tree(s) fell on subject  
**WATER:** body of water; stagnate or moving (including flood water)  
**OTHER-SPECIFY:** must be listed on narrative

**INJURY TYPE:** the type of injury incurred by the subject

**N/A:** no injury incurred

**ABRASSION:** scrapes; a layer or several layers of skin damaged or lost

**AMPUTATION:** loss of a limb (avulsions included: loss of skin and muscle tissue)

**BRUISE:** hematoma; blueness under the skin

**BURN:** 1<sup>st</sup>-3<sup>rd</sup> degree (include sunburn)

**CHEST INJURY:** injury by an external cause causing internal injuries (no heart attacks)

**CRAMP:** muscle tightening or pain

**CRUSH:** trauma caused by a falling object or compression to limbs/tissue

**DROWNING:** subject found in water (near-drowning included)

**FRACTURE:** broken bone(s)

**FROSTBITE:** injury caused by low temperatures resulting in frozen or nearly-frozen tissue

**HEAD INJURY:** serious injury to the head and/or face (see crush, amputation)

**INFECTION:** medical condition brought on by infection, i.e., fever, sickness, etc.

**LACERATION:** cut; slice

**MULTI-TRAUMA:** severe injury to more than one area of the body (see crush; amputation)

**PAIN:** no obvious injury, but subject is complaining or hurting

**PUNCTURE:** something has penetrated the skin and tissue

**SOFT-TISSUE:** injuries to muscle, fat, fibrous tissue, blood vessels, or other "soft" supporting tissues of the body

**SPRAIN:** injury to a ligament

**OTHER-SPECIFY:** must be listed in narrative

**ILLNESS:** the type of illness the subject had that caused the search or incurred during the search

**ADDISON:** a hormonal (endocrine) disorder involving destruction of the adrenal glands

**ALLERGIC REACTION:** a negative reaction to the body caused by a foreign substance; demonstrated by itching, redness, rash, fever, etc.

**ALTITUDE DISORDER:** altered level of consciousness due to lack of oxygen usually caused by high altitudes

**APPENDICITIS:** infection or irritation of the appendix  
**ASTHMA:** chronic inflammation of the bronchial tubes that can cause difficulty in breathing  
**DEHYDRATION:** lack of sufficient fluids in the body  
**CHILDBIRTH:** include contractions through delivery  
**EXHAUSTION:** excessive fatigue  
**HYPERTHERMIA:** overheating of the body  
**HEAT EXHAUSTION:** subject's body lacks sufficient water and salt from sweat; subject may have muscle cramps, dizziness, headache, fainting  
**HYPOTHERMIA:** subject's body core temperature is cooler than 95°  
**FLU/COLD:** Influenza (flu) is a respiratory illness caused by a virus. Flu symptoms include fever, cough, sore throat, runny nose, headache. The common cold (viral upper respiratory tract infection) is a contagious illness that may be caused by various viruses  
**INTOXICATED:** subject has ingested more alcohol than it can process (include the influence of drugs)  
**SEIZURES:** uncontrolled muscle spasms; subject can be rendered unconscious; causes are multiple  
**SHOCK:** shock is a critical condition brought on by a sudden drop in blood flow through the body  
**SHORTNESS OF BREATH:** a general term for someone who is not able to breath sufficiently  
**STROKE:** A stroke results from impaired oxygen delivery to brain cells via the bloodstream  
**HEART ATTACK:** A heart attack is a layperson's term for a sudden blockage of a coronary artery  
**ANGINA:** Angina is chest pain that is due to an inadequate supply of oxygen to the heart muscle  
**UNCONSCIOUSNESS:** a partial or complete loss of consciousness with interruption of awareness of oneself and ones surroundings  
**UTI:** Urinary Tract Infection; an infection of the kidney, ureter, bladder, and/or urethra; symptoms and signs include fever and abdominal pain  
**OTHER-SPECIFY:** must be listed in narrative

**TX BY:** transmitted (told) by

**NONE:** nothing was stated

**SELF:** was told by subject

**PUBLIC:** someone from the public who knew the subject (family/friends included)

**FIRST-AID:** someone who administered first-aid

**FIRST-RESPONDER:** someone who has completed the First-Responder course

**EMT:** Emergency Medical Technician

**WEMT:** Wilderness Emergency Medical Technician

**ALS:** Advanced Life Support (Paramedic)

**RN:** Registered Nurse

**MD:** Medical Doctor

**N/A:** does not apply (no injury or illness)

**RESCUE/EVACUATION METHODS:** how the subject was removed from the hazardous environment (if any)

**WALKOUT:** subject was able to walk out under his/her own power

**CARRYOUT:** subject had to be carried out (backboard, Stokes® basket, etc.)

**SEMI-TECH:** use of ropes (Ops level)

**TECHNICAL:** use of technical rope training (Tech level)

**VEHICLE:** subject driven out in a vehicle (ATV's included)

**BOAT:** subject was transported by boat (include powered and unpowered)

**SWIFTWATER:** rescued by swift water team

**HELICOPTER:** subject was rescued by means of a helicopter (hoist); not a medical helicopter

**AEROMEDICAL:** medical helicopter

**OTHER:** must be listed in narrative

**SIGNALING:** was any signaling used in the rescue/recovery process

**NONE:** no signaling used

**N/A:** no signaling available

**ELT:** Emergency Locator Transmitter

**EPIRP:** Emergency Position Indicating Radio Beacon (marine based)

**PLB:** Personal Locator Beacon

**SPOT:** Satellite Personal Tracker

**SATELLITE-ALERTING:** alerts if tracker is moved out of designated area

**CELL PHONE:** cellular phone/device

**CELL + GPS:** cellular phone/device and GPS (may be in same unit)

**RADIO:** 2-way, walkie-talkie, etc.

**FRS/GMRS:** Family Radio/General Mobile Radio System

**FIRE/SMOKE:** whether a fire is built or a smoke-signaling device

**FLARE:** bright-burning signaling device

**MIRROR:** signaling mirror

**OTHER VISUAL:** bright clothing, SOS on ground, etc.

**SOUND:** loud noises, i.e., air-horn, etc.

**OTHER:** any other device or means to signal rescuers or rescue resources

**INJURED SEARCHER/RESPONDER:** a searcher and/or responder was injured during the rescue

**DETAILS:** provide information on the cause of the injury

## **RESOURCE INFORMATION/SUMMARY**

**GSAR:** Ground Search & Rescue Team

**DOGS:** Search & Rescue Teams utilizing search-trained dogs, i.e., air-scent, trailing, tracking  
**EMS:** Emergency Medical Services  
**FIRE:** Fire Department(s)  
**TRACKER:** Man-Tracker (trained)  
**LAW:** Law-Enforcement (any branch)  
**DIVERS:** Water Rescue/Recovery utilizing divers  
**BOATS:** any water vehicle, powered or unpowered  
**CAVE:** Cave Rescue Team(s)  
**PARKS:** Park Service personnel  
**USAR:** Urban Search & Rescue (building collapse units/teams)  
**PUBLIC:** citizens; general public  
**HELICOPTER:** rotary powered aircraft  
**FIXED WING:** non-rotary powered aircraft  
**SWIFTWATER:** Swift Water (Moving Water) Rescue Units/Teams  
**OTHER:** must be listed in narrative

**FIND RESOURCE:** which resource made the find

**# TASKS:** how many tasks were assigned during the mission

**# DOGS:** how many SAR dogs were utilized (all included)

**# AIR TASKS:** how many aircraft tasks were assigned (all included)

**# AIRCRAFT:** total number of aircraft (rotary and fixed wing)

**#AIR HRS:** total number of hours of actual flying time

**EMERGENT VOL.:** total number of volunteers (non-responders; citizens; family)

**TOTAL PEOPLE:** total number of people assisting with mission (paid, volunteer, and emergent vols)

**MANHOURS:** total number of man-hours (paid, volunteer, and emergent vols.)

**# VEHICLES:** total number of response vehicles (include all vehicles actively involved in mission)

**# MILES:** total number of miles travelled by response vehicles

**TOTAL COST:** total cost (include responders, volunteers, vehicles, and any food or other purchases necessary for mission)

## COMMENTS

Please include a brief narrative of the incident. Include how the subject became lost, what they were doing, etc. Describe how and where they were found. Include any significant lessons learned, searcher incidents, methods to mitigate future incidents.

**\*Symbols for degrees, minutes and seconds:**

°	Degrees
'	Minutes
"	Seconds

**The three common formats:**

DDD° MM' SS.S"	Degrees, Minutes and Seconds
DDD° MM.MMM'	Degrees and Decimal Minutes
DDD.DDDDD°	Decimal Degrees

**Degrees, Minutes and Seconds**

**DDD° MM' SS.S"**  
**32° 18' 23.1" N 122° 36' 52.5" W**

This is the most common format used to mark maps. It's also the most cumbersome to work with. It's a lot like telling time...

*There are sixty seconds in a minute (60" = 1') and  
 There are sixty minutes in a degree (60' = 1°).*

Keeping in mind a few easy conversions between seconds and decimal minutes will help when working with maps that use degrees, minutes and seconds.

*15 seconds is one quarter of a minute or 0.25 minutes  
30 seconds is one half of a minute or 0.5 minutes  
45 seconds is three quarters of a minute or 0.75 minutes*

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### Degrees and Decimal Minutes

**DDD° MM.MMM'**  
**32° 18.385' N 122° 36.875' W**

This is the format most commonly used when working with electronic navigation equipment.

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### Decimal Degrees

**DDD.DDDDD°**  
**32.30642° N 122.61458° W**  
**or +32.30642, -122.61458**

This is the format you'll find most computer based mapping systems displaying. The coordinates are stored internally in a floating point data type, and no additional work is required to print them as a floating point number.

Often the N-S and E-W designators are omitted. Positive values of latitude are north of the equator, negative values to the south. Watch the sign on the longitude, most programs use negative values for west longitude, but a few are opposite. This saves a lazy western hemisphere programmer from having to type in a minus sign before most of their longitude values.

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### Which format should you use?

First off, if you are working with other people who have agreed upon a format to use, then you should probably use that format.

Next, you will want to look at the maps, lists of coordinates, and any software you may be using. If you can find a consistent format among them, your work will be easier.

You can set your GPS to display any one of these three formats. Locations can be entered into the GPS with the selected format, and then by switching the display format setting, viewed in a different format.

I frequently choose to use the Degrees and Decimal Minutes format, even though the USGS maps I'm using are marked in Degrees, Minutes and Seconds. The markings on the map are all at either 0, 15, 30, or 45 seconds. By remembering the "quarter minute conversions" of 0.00, 0.25, 0.50, and 0.75, I can quickly do the conversions

in my head.