

# Surface Prospecting

## Searching

1. Divide the area to be inspected into smaller zones. Use the terrain features to help set the boundaries of each zone. Designate each team with a unique letter (J3= Team J, Cave 3). This will help ensure each cave has its own unique number (later it can be given its own number with in its zone if desired).
2. Systematically walk each zone, start high and work to low. Use the contour of the slope to your advantage. Remember to look back every now and again.
3. If you are unable to get into an entrance (cliff, across a river etc), describe what equipment would be needed to gain access on the entrance sheet.

## Entrance photos

1. Take a **location** (far-away) and **entrance** (close-up) photo for each cave you find. A known object for **scale** is always recommended.
2. Record the photographer, and image number along with the cave's GPS data on the **Entrance Sheet**.

## Names

1. Always ask locals to write down the name of any cave or area.
2. Note the **source and reliability** of the name.

## GPSing entrances

1. Set your GPS to **UTM WGS84** meters.
2. Aim for an position error **<10m**. In a pinch, anything is better than no fix, but readings worse than 20m are highly suspect.
3. Vertical error is ~5 times that of horizontal error. If your GPS shows 3 or fewer satellites, it cannot give an altitude fix for the entrance. If necessary take a second reading from a different position level with the entrance in order to fix the entrance elevation, or use an altimeter if available.
4. **Mark the GPS point** at the entrance with paint (nail polish, white out etc) or a half-drilled hole so underground surveys can be tied into it. If you can't get a fix at the entrance, **surface survey** to it. If a surface survey is not possible, estimate the distance, bearing and height difference. This is very important for making a map of all the caves of the area.
5. Record the UTM coordinates, altitude, position error, GPS owner, GPS model, waypoint name, and position of the reading relative to the entrance on the Entrance Sheet.

## Entering the Cave

1. Get together with a partner. At least 2 people check out the cave together (Never enter a cave where nobody knows your there).
2. After checking out an entrance, write a short description of the cave and a sketch, if not surveyed.
3. Mark the cave with its number (use brush to clean rock before marking, build a cairn etc). Keep the number discrete but noticeable so it could be found again (a few years later).
4. Go light, Have fun.

## End of Recci

1. Record the day's events in your logbook, and in the projects diary.
2. Give all data to the Project leader for organizing the next phase of exploration.
3. Write an article for a caving magazine.

# Surface Prospecting

ENTRANCE SHEET

Date:

Time:

Cave Name (note source):

Cave Number: \_\_\_ - \_\_\_ - \_\_\_

GPS Coordinates: \_\_\_\_\_ (UTM)

WGS84  NAD27

Altitude:

Calibrated Altimeter  Topographic Map

Waypoint Name:

Estimated Position Error / Number of Satellites:

GPS Model:

GPS Owner:

Location of GPS point:

At Entrance

Not at Entrance

Bearing \_\_\_\_\_ Distance \_\_\_\_\_

Recci team (full names):

*Location Photos (show landscape)*

Photographer:

Camera:

Image Number:

*Entrance Photo (show shape of ent)*

Photographer:

Camera:

Image Number:

Entrance description

Size: \_\_\_\_\_ m x \_\_\_\_\_ m

Entrance Situated:

Sink hole

Ridge

Cliff

Canyon

Other \_\_\_\_\_

Air:

None

Little

Good

Excellent

Sucking

Blowing

Water:

Insurgence

Resurgence

None

Flow \_\_\_\_\_ l/s

Entrance Marking:

Flagging

Cairn

Paint

Colour: \_\_\_\_\_

Potential for continuation:

None

Little

Good

Excellent

Passage Description:

Horizontal

Climbing

Descending

Pit

Special observations (Cave life etc):

Please Note on the Back:

Equipment needed for access and exploration, Sketch the passages explored if not surveyed, and other relevant information