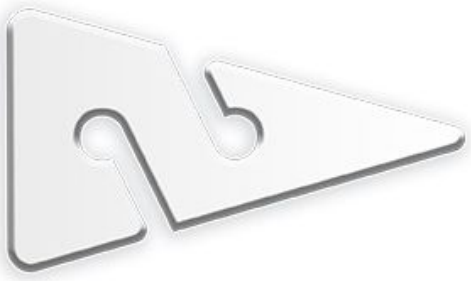
Cave Diving: Directional and Non-directional Markers

https://www.tdisdi.com/cave-diving-directional-and-non-directional-markers-101/

by Lauren Kieren:

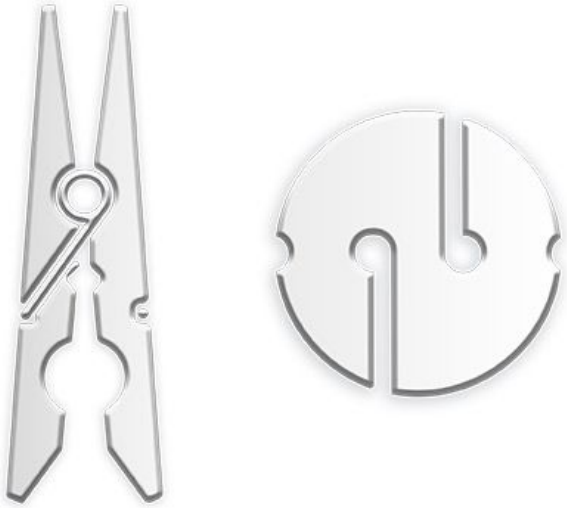
Cave divers use a distinct set of markers to determine direction and distance traveled in a cave. These markers must be identifiable through sight and touch should the divers find themselves in limited or zero visibility. As cave diving gained popularity over the years and new techniques were developed, you will find a few categories of markers in a cave: directional, non-directional, and a new "hybrid" category. We will discuss their basic functions here.

Directional Markers –



Directional markers are known as "line arrows" in the cave diving community. *Many popular cave diving systems have permanent line arrows at regular intervals (for example, every 30 metres or 100 feet) pointing to the nearest exit*. If there is a numerical value displayed on the line arrow, it is most likely identifying the distance to the nearest exit. In addition to providing directional reference, and depending on the local practices of the cave divers in that region, permanent arrows may be used to designate secondary passages and midpoints in the cave.

Non-Directional Markers –



Clothespins served as the original non-directional marker in cave diving. As cave diving progressed, "cookies" were developed and are preferred by many divers due to their size

and security when placed on a guideline.

Non-directional markers are often used to mark reference points for divers during circuits and traverses, distinguishing lines at a 'T' intersection, or placed by each member of a team on a jump or gap line to identify who has exited should the team get separated. Non-directional markers should have some form of personal identification printed on them such as initials, or drawings. Some cave divers add a personal tactile element to help identify their marker should they encounter zero visibility; these tactile identifiers may include slits on the side or holes punched through the marker.

A non-directional marker is only to be referenced by the diver or team who installed it and should be ignored by others.

Hybrid Marker or a REM (Referencing Exit Marker) –

A referencing exit marker or REM is a relatively new marker designed to be used as an arrow by the diver placing it and a cookie by others; as such, we are calling it a hybrid marker. A REM is rectangular in shape with slots included to allow divers to attach it to a line. It also has blank space available to include personal or team identification on one side and a small slate on the other to write on for reasons such as survey work, team separation (i.e. I exited the cave at 37 minutes), and more.

Referencing exit markers must be clearly labeled and marked to show the direction which a diver or team came from, it is a personal identifier; it is not to be confused by other divers who took a different route. If a diver comes across a REM, the direction of the marker should not be considered since a suitable exit for a small sidemount diver may not work for a large back-mount diver.

Since cave divers may encounter variations of markers from region-to-region, it is the responsibility of each diver and team to understand marking protocols prior to diving. **Clothespins, cookies, REMs, and any other non-directional markers should NOT be trusted unless the diver or team installed it.** In addition, all temporary markers placed must be removed once the intended use has been met to avoid littering a cave system with non-directional markers or REMs.

While the basic function of these markers is fairly consistent globally, specific procedures vary greatly from region to region, and dive team to dive team. When and where markers are placed and retrieved and by whom needs to be clearly briefed prior to every dive in order to eliminate confusion while in an overhead environment.