

# Common blunders during the survey trip

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## Survey tape errors:

All survey tapes are labelled in increments of either feet or meters. Reading the wrong side between footage or meter increments can result in errors of up to 1 foot or meter.

Some survey tapes have different measuring scales on each side of the tape, for example, feet/meters or feet in-tenths/feet-in-inches. Reading the “wrong” side of the tape with respect to the agreed-upon scale for the survey i.e. meters instead of feet or inches instead of tenths.

## Instrument errors:

Not holding compass horizontally level or not holding the clinometer vertically level (random errors)

Reading wrong side of inclinometer scale (reading percent grade instead of degrees from horizontal)

In compasses that show the front site and back site on the scale, reporting backsite for the frontsite or vice-versa. i.e. small-size numbers on upper half of the scale are the backsite, larger-size numbers on the lower part of the scale are the front site. (180 degree error)

Decade inversion – reading the wrong direction between major increments on the compass or clino scale (up to 10 degree error)

Magnetic effects on compass caused by batteries, glasses, helmet etc (5-10 degree error – usually caught on backsite). Some of the newer inclinometers can now be affected by magnetics.

## Communication errors:

Tape or instrument person reports numbers incorrectly or the sketcher does not hear the numbers correctly. This can easily be avoided if sketcher always repeats numbers back to the survey team. Clinometer reading should always be reported with plus or minus.

Reporting the tie-in station incorrectly to the sketcher. Or the tie-in station may be barely legible and thus prone to being incorrectly identified - this needs to be noted on the sketch.

## Book errors:

Dyslexia in writing the numbers in the book (random, potentially nasty error)

Failure to record inclination sign (plus or minus) in the book (random, really nasty error)

Sketcher records fore and backsite reversed (this will be apparent in the sketch)

Illegible book - mud, erasures, lousy handwriting (random errors).