

Navigation Basics

Journey Planning

- Keep journey plans confidential.
- Study the route avoiding obstacles:
- Military action.
- Crime ‘hot-spots’ (Car-Jack, robbery, kidnap etc).
- Natural events (flooding, landslide etc).
- Emergency options (‘Actions on’).
- Establish a monitoring system.
- Communications plan & Medical Evacuation plan.
- Seek local knowledge from someone who is from the areas you intent to travel to.
- Route Selection – focus on identifying the fastest, shortest & safest.
- Plan alternative routes.
- Get the correct kit for the Country you are going to – Maps, compasses, GPS

Actions On

- Lost
- No Communications
- Medical Emergency - Casualties

Route Selection

Identify the following:

- Start & Finish points.
- Main route & any alternatives (designate).
- Navigation ‘handrails’, ‘check-off features, & Landmarks.
- Distances (Total trip & individual ‘Legs’).
- Timings. Time = Distance / Speed.

Lost

- Check all calculations.
- Have someone else check.
- Return to ‘last known’ location.
- Use of RV/Navigation Check points.

No or Lost Communications

- Plan to have communication schedules.
- Use of alternative communication methods – radio, mobiles, sat-phones, land lines.

Medical Emergency

- Medical kit available & Location of medical facilities – Civilian, Military, NGO.
- Capabilities of all staff, fixers & drivers.
- Contact details of Hospitals.

Navigation

- Use the best map for you.
- Check the ‘Legend’ for unidentified symbols.
- Study the ‘contour interval’ to gain knowledge of any extremes in elevation.
- A ‘Slope Profile’ could give extra knowledge of a planned routes supposed elevations.
- Identify prominent points on the map – Cities, towns & villages, large water features & rivers including direction of flow, forested areas. Rock falls.

- Break the route into navigational 'legs' for direction, distance & timings.

Distances Calculations

- 1 mile is equal to 1.6km 1600m.
- 0.1 mile is roughly 160m.
- 1 kilometre is equal to 0.62 miles.
- 100m is roughly 0.062 miles

Speed Calculations

- MPH to Km per Hr
- Divide MPH by 0.62.
- Km per Hr to MPH
- Multiply Km by 0.62.

Knowing 'Where you are'

- Direction & Distance to end point.
- Use of Compass in Vehicles.
- Dead Reckoning.
- Direction.
- Time & Distance Calculations.
- Use of 'check-off features.
- Use of a second Navigator

Navigational Problems

- Identifying exact location along route when moving.
- Plot your route on a Route card.
- Use of re-section.
- Changes to (escape) route.
- Run Parallel if possible.
- Return to original line asap.
- Consider 'Aiming off'.
- Use planned 'Attack Points'.
- Night time Navigation.
- Check direction frequently.
- Use odometer or paces.