

INTRODUCTION TO RECONNAISSANCE

1. Reconnaissance - is a "preliminary" examination of an area or route.
 - A. Two phases of reconnaissance can be noted:
 - 1) Office phase
 - 2) Field phase
 - B. The combination of these two activity types will compose the most important single step in forest road placement.
 - C. The general purpose of reconnaissance is to provide information on feasible road routes and elimination of unfeasible routes.
 - 1) The best route will be the most economical route (considering all short and long range costs and benefits) which serves the purpose for which the road is to be built.
 - 2) It is the route which will result in a road neither above or below the standards established for the class of road.
 - D. Mistakes or oversights made during the reconnaissance phase are most often very difficult and expensive to correct later on.
2. Office Phase of Reconnaissance - This phase involves familiarization of one-self with the working area through examination of topographic maps, aerial photos, maps of ownership boundaries, existing road systems, soil types, geologic properties, and vegetative conditions.
 - A. This office phase should provide some key knowledge on:
 - 1) Existing area accessibility - remote, close-in, well roaded, unroaded, etc.,
 - 2) Existing road conditions and alignments,
 - 3) General topographic conditions - rugged, rolling hills, stream densities, highly dissected, etc.,

- 4) Vegetative status - sparse, heavily wooded, location of key timber types and volumes,
 - 5) Slope stability conditions - highly erosive, stable, old landslides, etc.
 - 6) Existing property lines and associated survey markers,
Easements
 - 7) Potential sources of rock and other potentially necessary construction materials,
 - 8) Any additional key area features unique to the area under study.
- B. Within this context the examiner should begin to locate "control points".
- 1) Control points - specific area features which will "control" the possible route locations that may be considered.
 - 2) For example;
 - a. Ridges
 - b. Saddles, passes - road junc.
 - c. Rock outcrops
 - d. Old landslides
 - e. Swamps
 - f. Sensitive soil types
 - g. Streams and stream crossings
 - h. Over steepened slopes
 - i. Groundwater, springs
 - j. Benches
 - k. Cliffs
 - l. Farms, recreation sites, lakes
 - m. Old cutting boundaries and old landings
Landings
Terminal point
Landings
roads

Bridge, culvert locations

- n. Existing roads and spurs
- o. Possible and existing road junctions
- p. Existing buildings
- q. Existing drainage structures
- r. Possible landing sites
- s. Possible road takeoff points
- t. Possible road termination points
- u. Rock pits
- v. Survey boundary markers

C. All important control points should be annotated on a topog map and/or stereo photo pair.

D. Then the planner should begin to eliminate unacceptable locations and develop possible strips within which a route could be feasibly located. Also all possible landings along these strips should be noted.

E. Once these steps have been accomplished you are ready for moving to the field to conduct an on-the-ground examination of the possible strips annotated.

3. Field phase of Reconnaissance - This phase involves on-the-ground familiarization of a limited number of route locations and field note recording of the actual ground conditions along the pre-selected strips. The terminal step in field reconnaissance is the running in of possible "grade lines" - which will be covered at a later time.

A. You should take to the field:

- 1) Field note books
- 2) Abney

- 3) Hand compass
- 4) Cloth tape
- 5) Topog maps and stereophotos
- 6) Hand stereoscope
- 7) Flagging