

## Part 544 - Equipment

### AL544.6 State Procedures

- A. The purpose of this directive is to provide instructions for the care, checking, and transportation of engineering equipment. This includes levels, transits, hand levels, total stations, chains, tapes, etc.
- (1) Engineering instruments are precise, delicate pieces of equipment. All personnel using these instruments will be responsible for their care, adjustment, and proper operating condition. Resource engineers (RE) will periodically inspect all engineering equipment within their assigned counties to determine that the equipment is being checked, properly care for, and is in proper operating condition.
  - (2) The recommendations in [National Engineering Handbook, Part 650, Engineering Field Handbook, Chapter 1](#), and Section 19, Chapter 2 shall be followed in caring for engineering equipment. All personnel using engineering equipment shall become familiar with these references.
  - (3) Frequent checking of surveying instruments is essential for high quality work. Personnel responsible for each field office and project office will:
    - (i) Install permanent survey checking station close to their headquarters.
    - (ii) Check all surveying instruments being used as necessary to ensure that they are in proper adjustment. Adequate frequency of checking may vary from every day to once each 180 days. Surveying instruments used on engineering jobs requiring precise measurements may need to be checked very often. Instruments must be checked anytime they receive rough treatment, such as being dropped or jarred during transportation. All surveying instruments will be checked and adjusted as needed annually.
    - (iii) Establish a record of when the survey instrument was checked. This will be accomplished by thumbtacking or taping a record card in the instrument box lid. Dates the instrument was checked, amount the instrument was out of adjustment, and name of person making the check should be shown on this card.
    - (iv) Instruments are normally transported to the job in automotive vehicles. Instruments will be transported in carrying cases. The carrying case will be transported in one of the following ways:
      - On the floor board of pickup trucks or in the trunk of passenger vehicles. The instrument will be properly secured to protect from overturning or bouncing.
      - In a stationary box mounted in the bed of the pickup truck. Effective padding must be provided such as a foam rubber cushion on which to place the instrument case. The instrument case must be secured to prevent overturning or bouncing.