



Photo courtesy of Donald Corey



## Tracking Primer



## What is Radio Tracking?



- Specialized receivers and antennas employed to locate the bearing of a transmitter
- Receiver set to the transmitters specific frequency
- Extended, directional antenna used to determine bearing of transmitter signal



Receiver



Transmitter

# Behavior of Radio Waves



- Radio waves spread at the speed of light from the source of transmission
- As distance increases from point of transmission, the strength of the wave decreases



**To a certain extent, radio waves follow land contours.**

- **In line of sight (flat land) the signal is always strongest because it is traveling the shortest distance between two points and there are no obstructions.**
- **The more obstructions encountered, the greater the loss of wave strength.**
  - **Types of obstructions to consider:**
    - **Topography**
      - Hills, Mountains, Dense Forest
    - **Man-made**
      - Buildings, Telephone Poles, etc.
    - **Moisture**
      - Humidity, Wet Foliage

# Applications for Tracking with Radio Frequency



- Hunting (216-220 MHz)
- Law Enforcement
- Search and Rescue
- Military training
- Falconry (432-433, 216-220 MHz)
- Model rocket and balloons
- Wildlife Research
- Downed aircraft
- Ships in distress

