

## Covert Surveillance System

### Overview

- What is spread spectrum?
- What differentiates the ATS System?
- General characteristics
- Characteristics, capabilities, use and maintenance
  - Model 1250 Transmitter and ancillary equipment
  - Model 1245 Monitor System
  - Model 1225 Hand Held Transmitter
- Operational Scenarios
- General care, maintenance and storage
- Other devices and equipment
- Questions and answers

### What is Spread Spectrum?

- Generally a wideband signal
- Bandwidth much wider than message
- Low Probability of Interception (LPI)
- Low Probability of Detection (LPD)

### What Differentiates the ATS System?

- Bandwidth and chip rate is much greater
  - virtually non-detectable
- Nearly instantaneous synchronization
  - No lost words or syllables
- More robust performance in multi-path environment i.e buildings,

city, etc.

- High quality audio
- Rated power output over life of battery
  - No sloping power output
  - No clipping

### General Characteristics

- Voice privacy
  - Digital system
- High quality audio - 56 Kbps CVSD
- Flat audio response
- No special batteries
- Terminated inputs
- All equipment compatible
- Relatively inexpensive
- Versatile
  - Data is scrambled

### Characteristics of the Model 1250 Transmitter

- Single transmitter - multiple carriers with integral antenna
- Standard batteries
- Internal microphone
- Capability to use externals
  - Microphone
  - On/Off switch
  - Antenna
  - Power converters
- Transmits a battery low bit
- Does not heat up

### Model 1250 Installation Considerations

- Internal microphone is very sensitive
  - Careful of wind conditions
  - Careful of clothing
- External connectors should slide on easily
- Face antenna away from body

- Insure proper selection of code and channel
- Always use fresh batteries
  - Avoid cheap batteries
- Insert battery pack in proper direction
- Turn unit off while inserting/removing battery pack
- Model 1245 Monitor System
  - Self contained unit can be operated in any position with case closed
  - AC, DC, internal batteries
    - Unit will determine operating power
    - Supports simultaneous charging and operation
    - Internal batteries support in excess of 8 hours receiving and recording
  - Recorder operates from Model 1245 power
    - Manual or automatic control
    - Three head Marantz - common to LEA's
  - Built in antenna's - can use external for "better" reception
  - Internal speaker
    - Can be turned off
    - Headphone output
  - Line outputs for dubbing
  - Meters and indicators
  - Receives and displays battery low condition (internal and transmitter)
- Model 1245 Installation Considerations
  - Power On
    - Unit performs self test
  - Select channel and code
  - Select recorder control
    - Manual or Automatic
  - Select Antenna
    - Internal or External
- Model 1225 Hand Held Transmitter
  - PTT walkie talkie style
  - Microphone sensitive
    - Need not be close to mouth
  - Should be held away from face/body when transmitting
  - Earpiece - Mic operation
  - Common battery
  - No squelch
  - Power LED flashes when battery low
- Safety Considerations
  - When using the Model 1225
    - Keep antenna away from body when transmitting
    - Keep transmit durations short
- Operational Scenarios
  - Direct
    - Listening post only
    - Monitor
    - Monitor and communication
  - Repeater Operation
    - Channel C
- General Care, Maintenance and Storage
  - Care
    - No alignment procedures
    - Charge batteries
  - Maintenance
    - Recorder can be removed for servicing
    - Internal battery (Model 1245) can be removed and replaced

#### Storage

- Sensitive equipment should be secured
- Should not divulge frequency

#### FCC Identifiers

- Model 1250 - OHA1250-044502PAT
- Model 1245 - Part 15, Subpart B
- Model 1225 - Certification not complete
  - Only to be used with provided antenna

#### Other Devices and Equipment

- Model 1230 Concealment
- Model 1240 Repeater/Transceiver
- Model 1260 Key Loader
  - Key Loader Adapters

#### Power Converters

#### Questions or Help

- For operational assistance, technical support, questions
  - call ATS directly at 1-888-327-0107
  - ask for Rick or Tony
  - email to [ajc\\_ats@hotmail.com](mailto:ajc_ats@hotmail.com)