ALMR

Alaska Land Mobile Radio Communications System

Encryption

Overview

- Encryption Terms
- Encryption Concerns
- Clearing Encryption

Encryption Terms

- **AES** Advanced Encryption Standard
- **CKR** Common Key Reference
- **DES** Data Encryption Standard – NOT NSA authorized
- **KVL** Key Variable Loader
- **KMC** Key Management Controller
- **KMF** Key Management Facility
- **UKEK** Unique Key Encryption Key

Encryption Concerns

- AES is the only NSA certified key material

- Degraded audio quality

- Degraded signal – lower range

- Everyone has it?

  – Internal

  – Other agencies

- They're listening - www.radioreference.com

Encryption Concerns

- Method of loading fills
  - OTAR
  - KVL
- Forced Encryption – Non-selectable
- Day one Encryption
- Duplicate CKRs

Clearing Encryption

- Methods of clearing encryption:
  - Remove Battery with power on
    - Should be immediate (Less than 10 minutes)
  - Leave battery off
    - Should be a few minutes. (Less than 30 min)
  - Buttons switches and menu items can be programmed to clear all or some of the keys

Questions

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