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# Alaska Land Mobile Radio Communications System Encryption

# Overview

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- Encryption Terms
- Encryption Concerns
- Clearing Encryption

# Encryption Terms

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- **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

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- 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](http://www.radioreference.com)

# Encryption Concerns

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

# Clearing Encryption

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- 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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