ANA Communications Systems

ANA C2 Systems

- Very High Frequency
  - FM: 1070 HH; PRC 1077; 7700HH
- High Frequency
  - HF: PRC 1099; RT 7000
- Cell Phone
- Messenger
- Afghan Government Network (Computers)

Very High Frequency (VHF)

NTM-A
NATO Training Mission
AFGHANISTAN

- Line of Sight (LOS)
- Used primarily for BDE and below C2
- Single Channel / Plain Text (SC/PT) is primary;
  - Scramble capability
- Range is ~40km between power amplified OE254s

PRC 1077 HANDHELD RADIO SET

NTM-A
NATO Training Mission
AFGHANISTAN

1. Characteristics:

a. Frequency range – 30 to 87.975 MHz.

b. Available channels – 2,320 channels w/ 25 KHz freq. spacing.

c. Preset channels – 12 programmable memory channels.

d. Primary power – 11-15 VDC

e. Battery life – Approximately 8 hours

f. Display – Backlight LCD.

g. Weight – 1.2 kg including battery.

h. RF power output – High - 20, Low – 5 W

2. Notes:

a. Used in Base Station, Vehicle, and Manpack configurations

b. Can be used with OE254 and Power Amp for extended range, 40km

c. Has retransmit capabilities with cable and second RT

PRC 1070 HANDHELD RADIO SET

NTM-A
NATO Training Mission
AFGHANISTAN

1. Characteristics:
   a. Frequency range – 30 to 87.975 MHz.
   b. Available channels – 2,320 channels w/ 25 KHz freq. spacing.
   c. Preset channels – 9 programmable memory channels.
   d. Primary power – 7.5 volts DC NiCad battery.
   e. Battery life – Approximately 8 hours
   f. Display – Backlight LCD.
   g. Weight – 1.2 kg including battery.
   h. RF power output – High - 2W, Low – 100mW

2. Notes
   a. Used in Squad elements
   b. Range is ~6km with whip antenna
   c. Alternate is the 7700HH

High Frequency (HF)

- Beyond Line of Sight (BLOS)
  - Can be used LOS as well

- Used primarily for BDE and above C2
  - MOD has an HF node established as primary means of communications
  - Used when LOS is not possible below BDE

- Single channel, auto tuning

- Skip range from ~30km - 100km

PRC-1099 HF RADIO

NTM-A
NATO Training Mission
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1. Characteristics:

a. Frequency range – 1.6 to 30 MHz.

b. Available channels – 2,840,000 channels w/ 10 Hz freq. spacing.

c. Preset channels – 12 programmable memory channels.

d. Primary power – 11-15 VDC

e. Battery life – Approximately 8 hours

f. Display – Backlight LCD.

g. Weight – 1.2 kg including battery.

h. RF power output – High -20 Watts, Low – 5 Watt

2. Notes:

a. Used in Vehicle and Manpack configurations

b. Auto tuning

RT 7000

NTM-A
NATO Training Mission
AFGHANISTAN

1. Characteristics:
   a. Frequency range – 1.6 to 30 MHz.
   b. Available channels – 2,840,000 channels w/ 10 Hz freq. spacing.
   c. Preset channels – 1000 programmable memory channels.
   d. Primary power – 11-15 VDC
   e. Battery life – N/A, Base station only
   f. Display – Backlight LCD.
   g. Weight – 3kg
   h. RF power output – High -20 W, Low – 5 W, PA – 100W

2. Notes:
   a. Has digital capabilities; not often used
   b. Auto tuning

Frequencies / Radio Networks

NTM-A
NATO Training Mission
AFGHANISTAN

- There is some frequency management at Corps and Higher

- Often units will simply use frequencies that they don't hear anyone on

- De-conflicting networks is done as needed between units on the fly

- Use of Networks
  - ANA will have a single network for all traffic
  - Don't use radio protocol, simply push and talk
  - Commander will have a private frequency

Cell Phones

- Most likely means of communications between staffs and units

- Have used photos to pass paperwork

- Will often have more than one Cell phone
  - Private
  - Business

Messenger

- Used for complex orders/ policies
- Can take almost a month to get to all of the HQs
- Most reliable means of paper reporting/tracking
  - Example is the commander's signature card

Afghan Government Network

NTM-A
NATO Training Mission
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- ANA computers are mostly stand alone
- Illiteracy makes working on a computer difficult, soldiers with the skill are few and favored
- Network is not stable, and is not pushed to all of Afghanistan
- It is established between MOD and most of Kabul, as well as main Corps HQ

ANSF C2

NTM-A
NATO Training Mission
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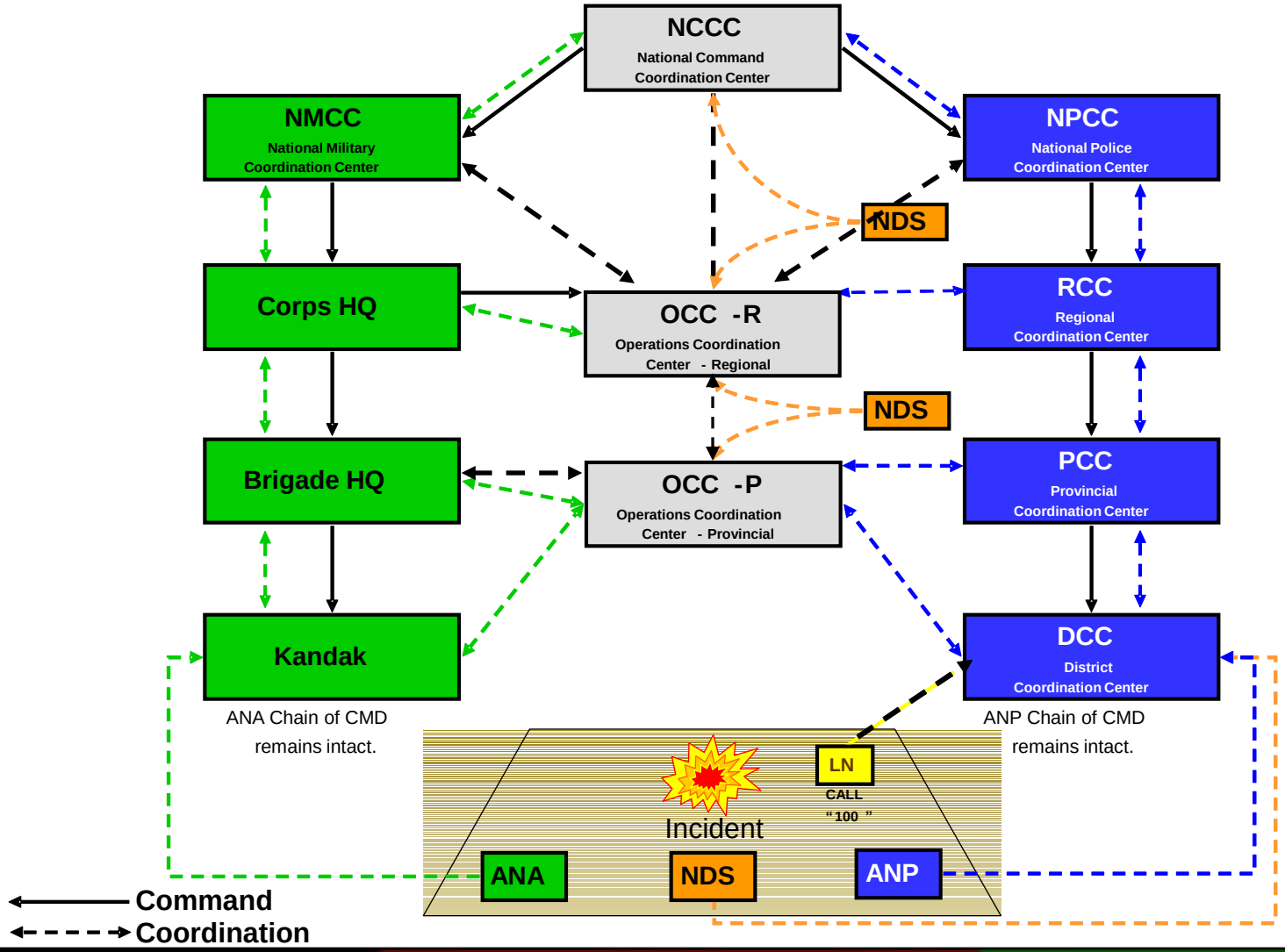
ANSF Reporting / Command Structure



Conclusion

- SFAT working with ANA communications
  - The ANA can plan and need to get in the habit of using their own systems
  - It can take time to get Orders and Policies to distant HQs
  - Be very careful when circumventing ANA communications
    - Coalition Forces have been often used as a work around
    - Make sure you have your own net, and monitor the ANA nets
    - Try to get the private networks
  - Maintain a cell phone, and make sure counterparts know your number
  - Afghan good enough