Status Report from the NATO Radio AHWG Meeting

15 September 2009

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Meetings of 14-17 September 2009

- Helsinki, Finland

- Parallel meetings of V/UHF and BLOS Comms Ad-Hoc Working Groups
  - V/UHF (AHWG/2): two days
  - BLOS Comms (AHWG/1): one day
  - MARLIN (formerly Subnet Relay)
  - Plenary meeting

BLOS Comms Meeting
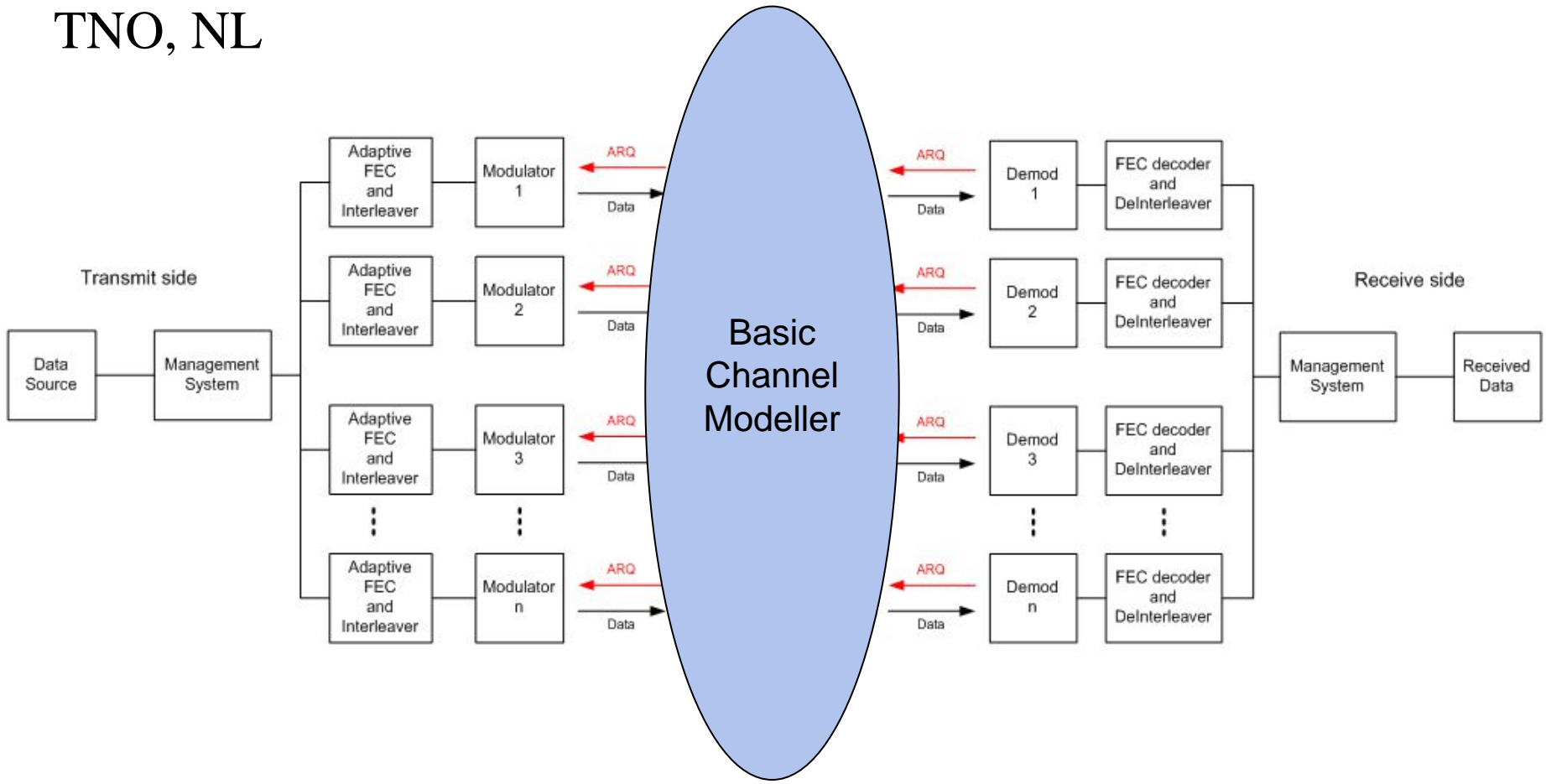## 15 September 2009

Administrative Matters

- New Chairman: Will Tong, USN SPAWAR

- BLOS Comms and V/UHF AHWGs will hold joint meeting in March 2010 in Netherlands

- New Terms of Reference to be drafted

  – Will add responsibility for all non-SATCOM technologies for beyond line-of-sight comms

Troposcatter Communications

- Briefing by Canada

- High-capacity BLOS technology

- Much higher operating frequencies than HF, but similar channel impairments

- Advanced HF technologies may be helpful

Non-Contiguous Channel Bonding

TNO, NL

Non-Contiguous Channel Bonding

- Baseband experiments so far

- 4 channels

- Data successfully balanced over mixed channel qualities

- Scheme seems scalable to 8 channels

STANAG 4444 (EPM)

- Will not be fitted to high-profile A-400M
  - Rockwell has radio contract for A-400M
  - No solution to aircraft coupler tune time problem

- NATO HQ urges dropping this standard due to lack of implementations

- Way forward (agreed under silence procedure)
  - Promulgate and maintain current version
  - No further development

STANAG 4538 (3G Suite)

- Edition 1 amendment 1 is promulgated

- Edition 2 status
  - TAC formed; members from US, UK, and NO
  - IP interface in development
  - IP Multicast protocol candidate presented (also MILCOM paper in 2008)
  - Higher speed data link in development (IPR-free)

STANAG 4539 (Modems)

- Data Modems (similar to 188-110 Appx C)

- Higher bandwidths are of interest

  - 64 kbps in 12 kHz?

  - SC/6: make HF standards "net ready" implicit tasking to get to at least 64 kbps

  - MILCOM paper October 2009

STANAG 5066 (Data Protocols)

- Edition 1 amendment 1 has 14th ratification Promulgated as "ed 2"

- Edition 3 will add LAN features (channel access control protocols), Internet integration
  - Annex L: Token-passing channel access
  - Annex M: (future dynamic TDMA)
  - Annex N: regional address allocation scheme
  - Annex O: integration with IP networks

Next Meetings

- Netherlands
  March 2010

- San Diego, CA, USA?
  September 2010

Questions?