

Status Report from the NATO BLOS Comms AHWG

16–18 October 2007

Eric E. Johnson

New Mexico State University
Klipsch School of Electrical and Computer Engineering
and Physical Science Laboratory

eejohnson @ ieee.org

Meeting of 16–18 October 2007

- Ljubljana, Slovenia
- Administration
 - Chairman has resigned
 - No nominations for a replacement
 - Secretary was unavailable for this meeting
 - Don Kallgren (NC3A) drafted as chair

New Radio Working Group

- Proposal: merge two ad-hoc working groups into a single Radio Working Group
 - + Permanent (not ad-hoc) status
 - + Implies ongoing resources from NATO HQ
 - Minimal overlap of expertise between the two groups (separate syndicates?)
- One year trial?

Software Defined Radios

- SDRUG met in June 2007
- Will assume custodianship of SCA standard from USA
- NC3A has roadmap to develop SCA-compliant implementations of STANAGS 4203, 4205 and 5066 as well as MIL-STD-188-141 2G ALE

ITU Update

- Nur Serinken, WP-9C chair previewed WRC'07
- SG-9 will propose 12 kHz allocations WRC'11
- HF interference from unintentional HF emissions
 - DSL of little concern. BPL is a serious problem.
 - Noise limits vary by nation, but noise crosses national boundaries.
 - Examples: switch-mode power supplies, plasma screens

STANAG 4444

- Frequency Hopping (EPM)
- Two implementations
 - Joint French / Italian
 - German
- Incompatible approaches in two areas
 - AES mode of operation
 - MELPe (OK at 2400? incompatible at 1200)

STANAG 4538

- Third-generation HF technology
- Edition 1 amendment 1 is promulgated
- Edition 1 amendment 2 in development
 - TAC formed; members from US, UK, and NO
 - IP interface will accommodate STANAG 5067
 - Multicast protocol in development
 - Higher speed data link in development

STANAG 4539

- Data Modems (similar to 188-110 Appx C)
- Annex D: NILE data waveform
 - NILE testing revealed need for changes
 - Move TDMA guard time to beginning of slot
 - Bit order differs between standard and implementations. Which must change?
 - Add an example?

STANAG 5066

- Edition 1 amendment 1 out for ratification
- Edition 2 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

“Net Ready” STANAGs

Amendments / enhancements required:

- 4203: accommodate wider bandwidths (e.g., 6 kHz ISB)
- 4444: higher data rates, faster hopping
- 4538: almost ready; lacks multicast and media access controls; harmonize with 5066
- 4539: nothing more needed
- 5066: doesn't cross-reference waveforms in 4538; should be harmonized with 4538

Next Meeting

- Bruges, Belgium
10-14 March 2008

Combined meeting of

- AHWG/1: BLOS Comms
- AHWG/2: V/UHF

Questions?