Cooperative Cyber Defence Centre of Excellence

Col Ilmar Tamm
Director

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Disclaimer

This briefing is a product of the CCD COE. It does not represent the opinions or policies of NATO and is designed to provide an independent position.

The briefing is unclassified.
Outline

Centres of Excellence in NATO

CCD COE organizational framework:
• Background
• Mission and tasks
• Structure
• Cooperation

CCD COE activities:
• Examples of CCD COE projects
• Highlights 2010
NATO`s Centres of Excellence

• Offer expertise in a specific field for the Alliance
• Are multi-nationally sponsored and manned
• Are International Military Organisations (IMOs), but not part of the NATO Command Structure
• Are accredited by NAC as International Military Organisation
• Participation is open to all NATO nations and on a case by case basis to other entities
CoE Status in NATO

1. Joint Air Power Competence Centre (JAPCC / DEU)
2. Defence Against Terrorism (DAT / TUR)
3. Naval Mine Warfare (EGUERMIN / BEL)
4. Combined Joint Operations from the Sea (CJOS / USA)
5. Civil Military Cooperation (CIMIC / NLD)
6. Cold Weather Operations (CWO / NOR)
7. Joint Chemical Biological Radiation & Nuclear Defence COE (CZE)
8. Air Operations Analysis and Simulation Centre (CASPOA / FRA)
9. Command & Control COE (C2 / NLD)
10. Cooperative Cyber Defence COE (CCD / EST)
11. Operations in Confined and Shallow Waters COE (CSW / DEU)
12. Military Engineering COE (MILENG / DEU)
13. Military Medicine (MILMED/HUN)
14. Human Intelligence COE (HUMINT/ ROU)
CoEs in NATO

**Activated**
- Accreditation process
- Initial consideration & Concept development

**MOU negotiation**

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**Potential COE offers:**
- **LOGISTICS**
  - HUN
  - JAPCC
    - Kalkar / DEU
- **C2**
  - Ede / NLD
- **CIMIC**
  - Enschede / NLD
- **NMW**
  - Oostende / BEL
- **CASPOA**
  - Paris / FRA
- **MILENG**
  - Ingolstadt / DEU
- **C-IED**
  - Madrid / SPA
- **M&S**
  - Rome / ITA
- **MW**
  - Ljubljana / SVN
- **CWO**
  - Stavanger / NOR
- **JCBRN**
  - Vyskov / CZE
- **CCD**
  - Tallinn / EST
- **EOD**
  - Trenčín / SVK
- **MILMED**
  - Budapest / HUN
- **HUMINT**
  - Oradea / ROM
- **DAT**
  - Ankara / TUR
- **CJOS**
  - Norfolk / USA
- **CJOS**
  - Kiel / DEU
- **CSW**
  - Ede / NLD
- **JAPCC**
  - Kalkar / DEU
- **C2**
  - Enschede / NLD
- **NMW**
  - Oostende / BEL
- **CASPOA**
  - Paris / FRA
- **MILENG**
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- **M&S**
  - Rome / ITA
- **MW**
  - Ljubljana / SVN
Facts about the Organization

• Founded as a multinational entity on May 14, 2008.

• Accredited as NATO Centre of Excellence on Oct 28, 2008.

• Manned and sponsored by 8 NATO nations:

  ![Flags of the 8 NATO nations](image)

• Joining process ongoing with: 🇹🇷 🇺🇸

• Directed and tasked by the Multinational Steering Committee consisting of the representatives of the 8 Sponsoring Nations.
Mission

To enhance the

- Cyber defence capability,
- Cooperation and
- Information sharing

among NATO, NATO nations and Partners by virtue of:

- Research & Development,
- Lessons learned,
- Education and
- Consultation.
The CCD COE is not

Part of NATO Command or Force Structure

Funded from NATO Common budget

24/7 NATO Operational Computer Incident Handling Center nor Multinational Computer Emergency Response Team working on behalf of Sponsoring Nations

Group of hackers or “Cyber Warriors”
Focus Areas

Study, dissemination and development of NATO, national, organizational regulatory, implementation and supervisory practices,

Legal policy implications,

Legal support to NATO and nations cyber defence goals and activities.
Focus Areas

Research on cyber operations concept (offensive, defensive, exploitative),

Strategic trend analysis,

Input to NATO and nations CD concept and strategy development,

Support to NATO CD exercise scenario development.
Focus Areas

Research on

technical attack detection and mitigation,
intrusion techniques,
monitoring solutions,
Hands on training,
Cyber Lab.
Focus Areas

Research on security and risk assessment methodologies and simulation and modeling techniques,
Support to CD exercises.
Structure

Director

Chief of Staff

Admin 7

Legal and Policy 5

Training and Doctrine 8

Research and Development 13

Total Manpower: 35
# Principles of Cooperation

<table>
<thead>
<tr>
<th>Role</th>
<th>Contribution</th>
<th>Eligible</th>
<th>Benefit</th>
<th>Vehicle</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sponsoring Nation (SN)</strong></td>
<td>Manpower on CCD COE location and full financial support to SC approved projects</td>
<td>NATO nations</td>
<td>Consensus vote in SC on entire POW. Full access to all products</td>
<td>Operational MOU, Note of Joining</td>
</tr>
<tr>
<td><strong>Contributing Nation/ Participant (CP)</strong></td>
<td>Manpower and/or financial support for one or multiple projects</td>
<td>Not restricted</td>
<td>Access to project specific results and products</td>
<td>Technical Agreement to be concluded by the Steering Committee</td>
</tr>
<tr>
<td><strong>Other Customer (OC)</strong></td>
<td>Reimbursement of identifiable costs of the products and services</td>
<td>Not restricted</td>
<td>Access to agreed services and projects of the CCD COE</td>
<td>Technical Agreement to be concluded by the Director</td>
</tr>
<tr>
<td><strong>Liaison</strong></td>
<td>Information on mutual points of interest</td>
<td>Not restricted</td>
<td>Update on relevant issues and continuous information exchange</td>
<td>Technical Agreement to be concluded by the Director</td>
</tr>
</tbody>
</table>
Cooperation
What we do - examples

Legal and Policy
- Manual for International Law on Cyber Warfare
- Country interviews on National Cyber Strategy Development

Strategy and Concepts
- Cyber Defence Glossary,
- Concept for Military Contribution to Countering Hybrid Threats
- Research on Strategic Cyber Defence and Warfare

Tactical Environment
- Cyber Defence Monitoring Solutions
- Training Courses (Botnet Mitigation, Monitoring, Basic hands on attack and defence)
- Support to NATO CD Exercise (Cyber Coalition)

Critical Information Infrastructure Protection
- “Live Firing” Cyber Defence Exercise
- Graded Security Methodology

Conferences
- CCD COE Annual Conference (C6)
- NATO Cyber Defence Workshop
Highlights 2010

CCD COE – Sweden CD Exercise, 10-11 May 2010

• Red/Blue Team Exercise
• Exercise Environment in SWE / VPN over Internet
• 6 Blue Teams from NATO and Nations at their home locations
• Red Team at CCD COE
Highlights 2010

Cyber Conflict Conference, 15 – 18 June

• 3 parallel tracks:
  - Concepts & Strategy
  - Technical Challenges & Solutions
  - Law & Policy

• Participation oriented to experts from
  - government,
  - military,
  - private sector and academia

Videos and Materials at
www.ccdcoe.org/conference2010/materials
username: C6guest
password: C6conference
Thank you for your attention!

For further information:

ccdcoe@ccdcoe.org

www.ccdcoe.org