

Plenary Discussion Notes – Session 2

- 1) Capt. Darren W. Knight, Naval Officer, Director, Joint Forces Capabilities, Canada

CF C4ISR Perspective – C4ISR: Command, Control, Communication, Computing, Intelligence, Surveillance & Reconnaissance

Leadership in Interoperability

We need to analyse this problem

I.e.: American Air force General

He was first to aim predator

Took problem from beginning to end and developed solution.

- 2) Col. (ret'd) Tom Johansen, Independent Consultant, Norway

Requirements for a Future COP-Display Based Operational Experience

NOTE-TAKER 1

Johansen: Security people are hardest people to get around (apart from procurement).

Knight: Leadership is making things happen lacks. No follow-up, for example when security people say X, which is needed, can't be done. Leader should say it's needed and feel then to figure out how.

Strategy for introducing new technology introduce "facilitation" who understand and believe in system.

Chipman: "Knowledge wall" easily introduced is a carrier. There was an existing group who used the Wall in their ongoing operation. Other technology needed organizational change – multiple interoperable system lacked overall responsibility.

Cunningham: What is shown may be known to be critical only to the actual user, not to any filter – example, church besides SAM site means can't bomb SAM (SA-6).

Johansen: Failure to take risks can be dangerous. –must start with political problems – what happens when you kill the wrong people, as always happens.

Knight: Targeting is a focal problem.

Gouin: COP as single point of access to multiple sources. It filters and categorizes Info using "Portfolio" Views", suited to different users and objectives. Displays multiple documents together allows contextual (concept) searches.

Using Portfolio to decimate info. COP21 Data Source

Data Access Layer. COP21 Source

Sensors Access Layer. COP21 Views

Integration of App Sources in Portal – Tight Coupling

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NOTE-TAKER 2

Capt. Knight: Leadership

- Way it works may not be official
- Find another way – get around issue
- OP leaders – you deal in data
- Data operators don't deal in data
- US Gen Tim Tumper? Understands C4ISR
- Arm Predator in strike mode
- Leadership

Q: Nuclear power through balloon

- Kosovo
- All plane as input
- Lack input from local level
- Need to extract data at local level at HQ

A: (Col.): Intel is a problem – sit in own corner

- Don't have what we think we need
- How to capture+ digitize input into canned system
- Making technology stick
- Need for facilitator or making technology accessible
- Spectrum of uncertainty

Chipman: Knowledge Wall SPAWAR exp'? Use on Carrier war Afghan

- Homeland Security to do interoperability
- Even if technology go?

Col: System much better than original one

- RAP: recognition air picture
- Why users use? It

Capt: 70% solution – put it into use NOW

Harvey Smallman: Templates uniform

- Eases data entry (for data wall)
- Directed telescope
 - Trusted agents; query language
- Church: distance to church irrelevant until want to bomb

Col: Major problem in Kosovo

- They knew ROE – put families on 2nd floor
- People working in response
 - 90% of info done offline not in emergency situation
 - Remaining 20% current data
 - Query language
- Didn't make decisions, people killed anyway
- Military people don't take risks
- Officers didn't want to take risks in BATTLELAB
- Procurement: COP needs to be speeded up

Q: Break in d-m process

- Entering data into system problem
- Finished solution sent into system

Q: Target selection:

Being able to zoom in any other task

A: Targeting that's when you kill people (so it matters)

Capt: Having a local point like targeting mo??? Forces
Targeting input tasks – how to select focal point

Bill Wright: 70% solution – where to draw the line
Need for leadership – requires ongoing energy
Risk
Need for evaluation
Procurement is bad
Benefit – how to measure
How do benefits factor in?
How are we going to do this
Tracking systems on every army vehicle
Need automated systems to enter data – manual data entry
Measures of effectiveness
 Measure what can be measured
 Spent against delivery schedule
 COP – degree of user satisfaction

Col: Art of War -> Why did we do this?
Finding the correct words

Harvey: MOE – specific measures
User preference vs. performance
Should hear more during Workshop

Vincent: Airliner shot down
Overrides ROI

Grasping term
Common operating picture
70% solution land/air/sea/cyber
culture . org.
What are challenges – word common

Paradigm across ?? with COP, or does everyone not the same

NOTE-TAKER 3

Q: Would it be possible to incorporate locals by assigning people to give information to headquarters?

A: Yes – Common Operating Picture – similar Intel community sit in own quarters – Commanders feel they don't have what they need.

Capt.: Good behaviour on network

Susan: Homeland security – neat technology ideas – to make interoperable – on carriers, groups of people responsible for continuously updating information; information templates.
Homeland security – no existing organization – people don't know responsibilities.

Col: Why mess with it? Intel is a real challenge.

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Capt.: 110% solution – give knowledge to people who are motivated – good ideas – a reasonable solution – assign people jobs that fit their capabilities.

Susan: Continuously updating ... people didn't really have to learn new jobs.

Capt.: Template was an easy way for people to get data in.

Bill Cunningham: Lacking directed telescope – WW2 units – guys – how much detail can guy at top absorb? What's near my target? Church only becomes relevant when something is bombed right next to it.

Col: Good imagery is crucial – was a problem in Kosovo.

Capt.: True network environment. 95% of info – this has to be made a part of common operating procedure – other 5 % needs to be accessible during crucial period.

Col: Not afraid that we're going to make the wrong decisions – problem was that we didn't make any decisions – commander needs to take risky decisions – often military personnel are not taught to take risks. Common operating picture needs to be sped up – for a 70% solution at least.

Q: Problem of visualizing – has there been any other work done on tasks for this system?

Col: Reason for focussing on day 1 (target area) – that's when they kill people, when people die. UAV position – huge problem – don't know which way it's pointing. We need to start in real practical problems.

Capt.: Focal point like targeting – if we can solve it, the solution can be applied to other areas – we will definitely have a focal point – working on where it will be.

Bill Wright: Leadership – changing need needs energy – new technology is risky but a partnership is needed – the knowledge provides. There are probably lots of people in this room who would help in that.

Q: 70% solution – how do you quantify the benefit on this 70 % solution? Human performance is tangible – how do you make the 70% tangible and know that 70 % will be good enough?

Col: 28 years old guys and girls – find out how much this is going to cost me – need automated assistance.

Capt.: Some things are intangible – either I like it or its garbage.

Col: One thing that has gone away in the last 20 years is out-of-war?

User preference not always the best.

Susan: When civilian airliners are shot down by mistake – has a real effect.

Q: Common – hard to grab in Common Operating Procedure (COP). Culture was identified in a slide – wondering from nationality POV, what are the challenges associated with that in determining whether Common is relevant?

Capt.: Common piece – is shared data set – as long as they're drawn from common data set, they're common. Bringing people from old to new way of doing business requires guidance. Biggest problem people understanding. That they are in a network position – they need to know that everything they produce becomes part of a network – get out of filing cabinet.

Col: If you're going to be a commander, you need to know if you need a 60% solution, 100% etc. – you have to live with less for a land picture. You need to have experience and staff around you to say you can give 60%.
Culture – big differences between air force, army and different countries.

THESE ARE THE NOTES BY ANNETTE

Chipman: 2 systems: Knowledge wall and Homeland security
Difference: people were responsible for briefing
30 diff. Systems, no existing organizations

Col: We should start to make a system that is going to be better in 4 years than existing one; the sea and the land picture is really important

Knight: System: visual wall paper

Cunningham: We struggle with directed telescopes

Col: You don't need the total Intel-picture all the time
Military people are not taught to take risk, but not taking risk might be even more hazardous

Q: Target selection is your main concern – why? Are there any other issues / requirements?

Col: That's where people die!
There are lots of requirements!
We have to start with the real problem.

B. Wright: You need technology to accomplish/support risk (as a partnership).
What is the benefit of factor (that is good enough!)
Human performance is not tangible.

Col: I gathered good software people (~ 28 year old)
Told them what I need
How much does it cost
Came to 70 % solution
You need some automated picture.

Capt.: Measure of effectiveness
They measured what they can measure
You mentioned time to deliver
No one measures quality and user satisfaction

The word "Common" – what does that mean?

Capt: To share common data
Cultural aspect is of importance!
People get to be aware that they are in a networked system!

Col: Commander has to know: Can you live with 60/80/100% picture (100% can never be reached in a land picture)
There are a lot of cultural differences.

