ICCRTS & KSCO

Contemporary Command and Control Challenges

Sir David Capewell KCB OBE



History Rhymes...

"We have fallen upon evil times, politics are corrupt and the social fabric is fraying"

An engraving from ancient Chaldea - 3800 BC.



Context, Utility, Legitimacy & Discretion



Sun Tzu – To decide the sort of war we are embarking upon...



Thomas Aquinas – A just war, a just cause...



Clausewitz – The continuation of politics by other means...

Context, Utility, Discretion, & Legitimacy



Strategic Choices?



Kissinger – Reconcile force against diplomacy, realism against idealism, legitimacy against pragmatism...



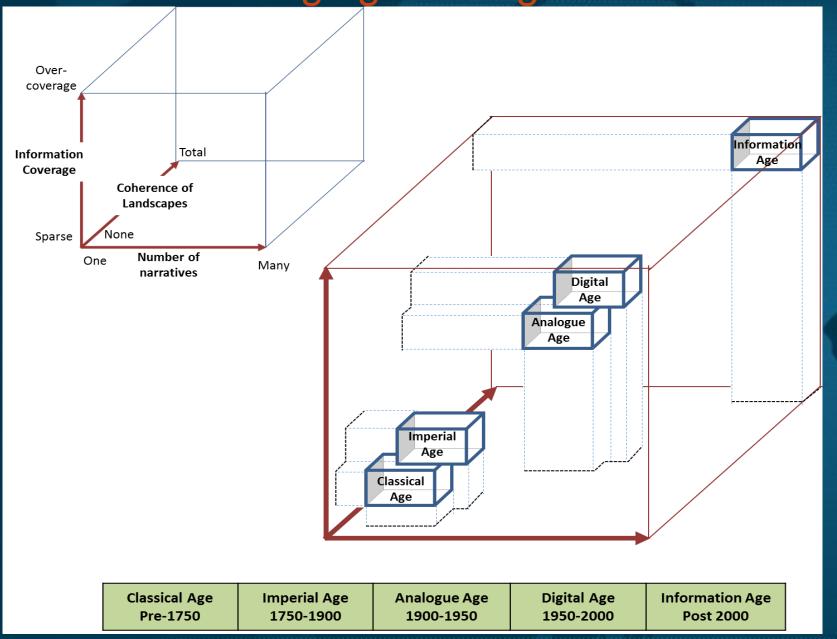
Mao – Disequilibrium is a general objective rule...All under heaven is in chaos, the situation is excellent...



Ban Ki Moon - Saving our planet, lifting people out of poverty, advancing economic growth... these are one and the same fight. We must connect the dots between climate change, water scarcity, energy shortages, global health, food security...



Changing Paradigms?





A New Strategic Calculus...?

- The balance of military advantage shifts away from the West...
 Westphalian institutions fail...
- Three shifts in power: The nature of the state, the nature of authority and the nature of the adversary.
- Technology accelerates and becomes more accessible: Space, the electromagnetic environment, big data, processing power, robotics, autonomous systems, and net speed media.
- Conflict is Hybrid, proxy, amongst the people, sub strategic, non-state, peer-on-peer, asymmetric, ambiguous, competitive.

The politics of insecurity, identity and ideology...?



Adversaries?

Feral, irrational, competitive, volatile...









Enveloped by a wholly different form of warfare...



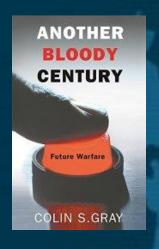


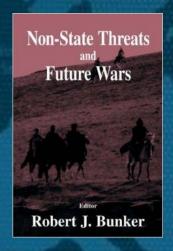


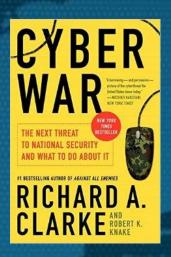
How, Why, Who, and with What we fight...?



Addressing the Future....







What policy, what science, what technology, what behaviour, what culture, what structure, what resource...?

A new moral and ethical dimension...



Managing the Instruments of Power...











An integrated, comprehensive approach and architecture to measurable, full spectrum effects and consequence...

Our Legacy...Lessons?



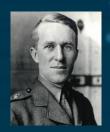
Band of brothers



Berthier
The staff system



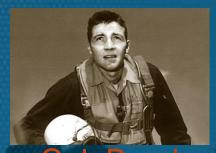
The indirect approach...



T.E. Lawrence
The flash of the Kingfisher



Vatutin
Operational Maneuver



Col. Boyd OODA Loop



Nimitz Fleet Action



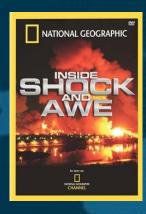
MacArthur
Strategic Maneuver

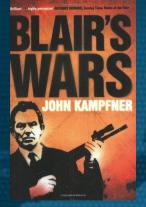


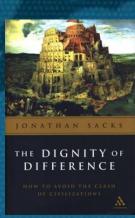
Strategic Bombing

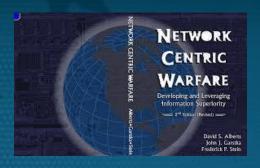
Our Legacy...Reassessed?

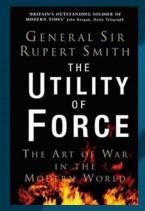


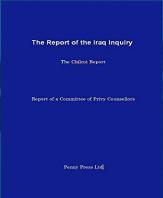


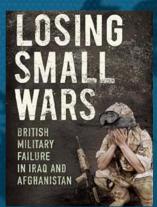












Maintaining the strategic edge?



Some Characteristics Of A New Model Command and Control System..

- Knowledge-centric with geographic and electromagnetic reach to identify anomaly and make sense of a complex dynamic environment and context.
- Triangulate the relative advantage Mass, Precision and Presence and apply measurable and legitimate force and influence.
- Agile enough to deal with multiple mission parameters and transition between Poise, Pre-emption and Prevention - at strategic reach.
- Possess the human and technical talent to plan campaigns across the physical and cognitive domain in coordination with the other instruments of power, allies and other agencies and actors.

So What...to decide and act at a relative tempo that gives further political choice and operational advantage over an adversary or situation...



HQ Maturity Model

Adaptive & Learning L4 Socio-Technical Cognitive & L3 **Behaviour** Process & Information Functions & Outputs

Agile and Adaptive HQ

Information Centric HQ

Unified HQ

Rationalised HQ

Functional HQ

Self-adaptive, self-organising systems enabling decisive and consistent operational advantage

HQ has integrated intelligent knowledge systems; decision and information superiority

Comprehensive and Integrated approach to effect; focus on innovation and outcome

Basic Information Management
System in place; focus on
understanding tempo and precision

Functional protocols understood; organised for directed tasks; Staff understand Battle-Rhythm

Big Questions...

- Is our current approach to command and control fit for purpose?
- Do we have a coherent plan to transform it?
- What changes to behaviour, education, culture, and science are required?
- Who leads it and who pays for it?

Command and control as a vanguard transforming capability...



A Parting Thought....

"The endless cycle of ideas and action;
Endless invention, endless experiment;
Brings knowledge of motion but not of stillness;
Knowledge of speech but not of silence;
Where is the wisdom we have lost in knowledge?

Where is the knowledge we have lost in information?"

TS Elliot - The Rock - 1934.





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