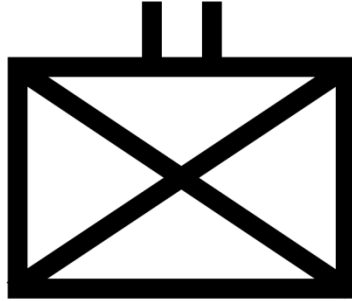


# CONNECTIONS UK



*KING'S COLLEGE LONDON*

*04 - 06 SEPTEMBER, 2018*

## **CONNECTIONS UK GAMES FAIR 2018**

As in previous years, we have a wide range of games available for you to browse or take part in during this year's conference. The format of the Games Fair is the same as in previous years, with two separate sessions on Wednesday 5th – one in the afternoon from 1400 to 1700, and the other after supper from 1900 to 2200. This allows you to try two different games in the two sessions, or to play a game in one session and browse in the other. We have allocated games through an online preference exercise, depending on the places available on each. Please join the games you have been allocated, or see Stefan if you have not been allocated to a game and wish to join one which has space available. The locations of the games are shown in the following maps.



Defence Academy  
of the United Kingdom



**Afternoon**

**Edmond J. Safra  
Lecture Theatre**

Games for Great Hall

Future Artillery x 9

Hybrid Warfare x18

Fighting the Islamic State x 9

RCAT x 9



ASUW x 9

2<sup>nd</sup> Lebanon x 6

Guerrilla Checkers x 6

Dogfight x 6

**KO.16**

Strike! Battlegroup x 9

We are coming Nineveh x 9

Fog on the Somme x 6

Swedish National Def x 12

Section Commander X 9

Opa, Vijay X9

Command PE

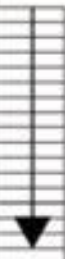
**KO.19**

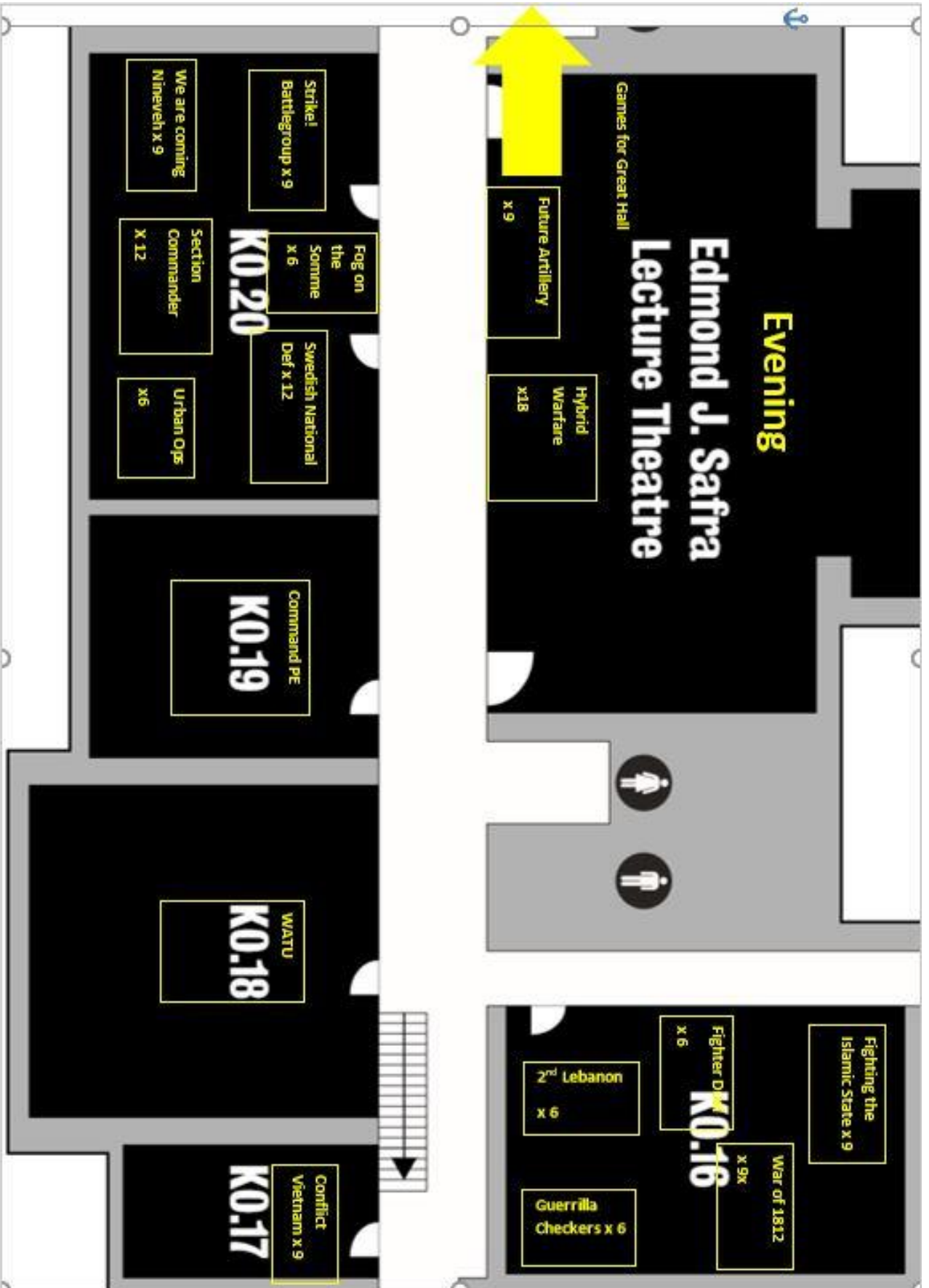
WATU

**KO.18**

Super soldiers x 12

**KO.17**





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## **ASUW: A SIMPLE UCL WARGAME**

*Designed and organised by Dr Nick Bradbeer RCNC, University College London  
Afternoon session only, K0.16*

### GAME DESCRIPTION

ASUW is a modern naval wargame, focusing on missile combat between ships at the tactical level but also including aircraft, land-based and submarine units. It is played blind, with each team having its own map showing only the information known to them, and is usually played with uncertainty about enemy force strength and objectives. The game represents ship layout and subdivision at a relatively high level of detail, allowing it to capture and model the impact of decisions made during the ship design process.

This game scenario will centre around a maritime task group intervening in a civil war, with a mandate to destroy government forces being used against rebel and civilian targets.

### PROFESSIONAL UTILITY

ASUW is used at UCL in the education of MSc students studying naval architecture and marine engineering. It is used in the early stages of the MSc programmes to give students an understanding of the context of modern naval warfare, during the Ship Design Exercise to allow the tactical impact of design decisions to be explored, and at the end of the course to allow students to explore the performance of the ships they have designed.

The game has received positive feedback from students, both as an interesting exercise and as a valuable method of gaining understanding of the operational capability offered by various design choices.

## COMMAND PE

*Designed and organised by JD McNeil, Slitherine Software  
Both sessions, K0.19*

### GAME DESCRIPTION

Command uses a realistic 3D earth globe for each of its scenarios. Players can rotate and zoom in and out of the action, from satellite view down to the wave tops. There is a build your own scenario facility, and players may use a powerful yet intuitive point-and-click mouse interface for controlling their forces, jumping around the action and issuing complex orders. The map and info windows may be customized to suit desired play style, even on multiple monitors.

Sensors and weapons work as in real life. Units move, detect, and fight based on what their systems can and cannot do. Electronic warfare and technological levels will tilt the balance of battle. Weather and terrain, both overland and undersea, can hide forces from the enemy but can also block their weapons from firing. Thermal layers, convergence zones, surface ducting, the deep sound channel and factors such as water temperature and terrain slope may decide sub vs ship duels. Thick clouds or rain can render laser-guided systems useless.

Crews are rated for their proficiency (from novice to ace), operating under custom doctrine and rules of engagement.

The Connections UK scenario has been developed specially to simulate an exercise code-named Joint Warrior 2028. Royal Navy forces, centred around the Queen Elizabeth Carrier Strike Group, must run the gauntlet from the North Sea through the English Channel against a homeland defence force based on RAF and limited Marine assets. Civilian shipping, air traffic and infrastructure forces players to conduct operations carefully to minimize collateral damage.

### PROFESSIONAL UTILITY

Command PE is currently being used by Military Academies for educational and training purposes, and by various Military Departments of USAF, USN, USMC, NATO and other forces and Military Contractors for analytical, experimentation, costing analysis and warfighter training, scenario creation and various sized wargame sessions. It offers affordable Commercial off the Shelf Software (COTS), and has been credited for its ease of use and rapid edit-experimentation test cycles.

## **CONFLICT: THE VIETNAM ERA CLASH OF NATION-STATES**

*Designed and organised by Dr. Karl Selke, Group W Inc.  
Evening session only, K0.17*

### GAME DESCRIPTION

CONFLICT is a simulation designed to represent the clash of sovereign states in pursuit of national power. The purpose of the simulation is to acquaint individuals with the strategic operational employment of combined armed forces in a free-play political environment. Military experience is not required. Grasping the capabilities and limitations of the simulation's various military units and integrating them in pursuit of a coherent and reasonably achievable national policy in cooperation and competition with friends and foes are the keys to success.

### PROFESSIONAL UTILITY

The original form of Conflict was developed in 1973 by then-Captain Robert Selke to teach national defense policy to Air Force ROTC cadets. His hobby wargame is a structured wargame representing fictitious sovereign states competing for national power. Conflict operates at a global scale, but it also provides regional insights. As a nation-state, the participant is forced to plan political and military goals strategically, but in pursuing individual objectives the participant confronts operational problems. Different theaters of conflict all compete for limited resources of the country. These theaters are contained in scope by the goals of the nation-state and the power the nation-state possesses to implement its policy. Its original form, developed in 1973, was a post-WWII era multi-sided wargame. Over the years, it has upgraded to its current form, which includes advanced technologies such as precision-guided munitions. The game conducted at Connections UK will be the original 1973 version.

## DOGFIGHT

*Designed and organised by Professor Philip Sabin, King's College London  
Afternoon session only, K0.16*

### GAME DESCRIPTION

*Dogfight* is a simple grand tactical simulation of WW2 fighter combat between escorts and interceptors as they seek to protect or assail a formation of bombers. Each turn represents 10-15 seconds, and each counter represents a flight of 3-6 fighters. The game highlights especially the importance of altitude and the utility of covering tactics to protect other fighter or bomber formations. Escorts can easily cover the bombers, but in doing so they become predictable and expose themselves to attack. Interceptors need to balance their efforts carefully between engaging the bombers and dogfighting with the escorts. The result is a swirling contest of manoeuvre which provides important insights into the enduring mechanics of aerial combat and the importance of teamwork and tactical cooperation.

*Dogfight* uses the beautiful counters and side-scrolling perspective from Lee Brimmicombe-Wood's *Wing Leader* hobby games published by GMT, but by innovative use of a new rolling board, it returns to a much more fully 3D perspective while focusing more on the fighter manoeuvres around the bombers themselves. It eschews the usual hobby focus on modelling the fine technical differences between different fighter types, and it is perhaps the only air combat board game in which the placement and orientation of a single counter on the map conveys at a glance everything players need to know about the flight concerned.

The latest edition of the fully illustrated rules of *Dogfight* is available on the Boardgame Geek *Wing Leader* pages, together with six complete sample games. Just Google 'Wing Leader BGG'.

### PROFESSIONAL UTILITY

*Dogfight* is a simpler spin-off of *Angels One Five*, which was used for many years in Professor Sabin's final year BA module on Fighting in the Air to familiarise students with the grand tactical dynamics of World War Two air battles. *Angels One Five* was published in Professor Sabin's book *Simulating War*, and later in a deluxe edition by Victory Point Games. He has recently been seeking ways to make the system even simpler and more accessible, while retaining the central principle of allowing up to 10 students each to take command of an individual flight of fighters and to experience the challenges of intercepting or protecting bombers within a single two hour class.

*Dogfight* showcases several advances in educational game design over *Angels One Five*. It illustrates how further judicious abstraction can make games even more accessible while retaining effective modelling of key teaching objectives such as cover mechanics and the importance of altitude advantage. It shows how innovative use of representational perspective can capture even such a complex 3D phenomenon as aerial fighter combat on a 2D board without any need for the usual counter swapping or off-board record keeping. It also illustrates how teachers can use components from published hobby games without needing to use the rules of those games, which are often too complex and time-consuming for use in class by non-gamer students. Above all, it shows how 'old fashioned' board game techniques can complement real time first person computer simulations even within a fast-moving field such as air combat, by providing greater design accessibility and a clearer overview of formation manoeuvres.

*Dogfight* is primarily focused on interactive demonstration of past aerial tactics within the context of military history education, but the enduring dynamics and design ideas give it significant relevance to modern air power professionals.



## FIGHTER DUEL

*Designed and organised by Professor Philip Sabin, King's College London  
Evening session only, K0.16*

### GAME DESCRIPTION

*Fighter Duel* is a simple tactical simulation of combat between flights of up to 4 fighters in WW2. Fighters can manoeuvre freely in 3 dimensions, exchanging altitude for airspeed, and circling to try to get a shot without being targeted themselves. Key to success is balancing tight turns against maintaining enough overall energy to catch or escape adversaries – the classic ‘angles vs energy’ trade-off. Fighters must split up to ‘bracket’ individual enemies without losing mutual cover between wingmen. The result is a swirling contest of manoeuvre which provides important insights into the enduring mechanics of aerial combat and the importance of teamwork and tactical cooperation. Pilot quality is a key variable, with aces enjoying multiple advantages while novices lose situational awareness and become sitting ducks.

*Fighter Duel* uses innovative components created from the counters in the old SPI hobby game *Spitfire*, the hexagon board from the old Avalon Hill game *Flight Leader*, and the data from the old Avalon Hill game *Mustangs*. It models technical differences in speed, power, turn rate, roll rate, visibility, firepower and resilience between different fighter types, while focusing on accurate simulation of the fundamental physics of flight and on creating a rule system short and simple enough for the entire dogfight between 8 fighters to be refought in a reasonable time even by non-gamers. Unlike in computer games where such a dogfight would typically see half the planes shot down in short order, *Fighter Duel* models the targeting difficulties and morale issues which meant that a typical historical outcome might be only a couple of aircraft damaged and others scattered.

### PROFESSIONAL UTILITY

*Fighter Duel* is a simpler spin-off of *Angels One Five*, which was used for many years in Professor Sabin's final year BA module on Fighting in the Air to familiarise students with the grand tactical dynamics of large WW2 air battles. *Angels One Five* was published in Professor Sabin's book *Simulating War*, and later in a deluxe edition by Victory Point Games. *Fighter Duel* modifies the system to create a more focused model of air combat between individual fighters, reflecting Phil's approach of creating ‘nested sets’ of simple simulations covering conflict dynamics from the tactical to the strategic level. It allows up to 8 students each to take command of an individual fighter and to duel a team of their colleagues within a single two hour class.

*Fighter Duel* portrays with much higher resolution than in *Angels One Five* the technical strengths and weaknesses, 3D position and energy states of the fighters. It also illustrates how teachers can use components from published hobby games without needing to use the rules of those games, which are often too complex, time-consuming and unrealistic for use in class by non-gamer students. Above all, it shows how ‘old fashioned’ board game techniques can complement real time first person computer simulations even within a fast-moving field such as air combat, by providing greater design accessibility and a clearer overview of formation manoeuvres.

*Fighter Duel* is primarily focused on interactive demonstration of past aerial tactics within the context of military history education, but the enduring dynamics and design ideas give it significant relevance to modern air power professionals. It offers a laboratory within which players may set up any desired initial situation and experiment with pair and flight tactics as discussed in Robert Shaw's classic detailed study *Fighter Combat: Tactics and Maneuvering* (available free online).

## **FIGHTING THE ISLAMIC STATE**

*Organised by Charles Vasey*

*Both sessions, K0.16*

### GAME DESCRIPTION

Fighting the Islamic State was researched and designed by R. Steven Brown to show why the war in Iraq and Syria is causing so many refugees, who is fighting and why, and what outcomes may occur. The game covers the period 2014-2017, and so projected into the future when first designed. In order to accommodate that, the designers updated the rules and charts periodically online to reflect what is happening in the field.

The game counters (playing pieces) include combat units for: the Islamic State ("ISIS," "ISIL," "Daesh"), the Syrian Regime (including Russians), the Syrian Rebels, the Kurds, the Iraqis, the Iranian-backed forces (Shia Militia and Hezbollah), and the US/Coalition forces (USA, France, Britain, Turkey). Each of these may be fighting IS or feathering its own nest or both.

The map covers all of Syria and Iraq and the border areas. Depicted are the power plants, dams, oil fields, refineries and archaeological sites that the Islamic State exploits for cash. The map is color-coded to reflect the primary religious sects that divide loyalties there: Shia and Sunni Muslims, plus "Tolerants." Fighting in an area that matches your Faction's religion helps you; fighting in the other areas helps your opponents.

The game is for 2-6 players. "Momentum" is a key concept - the player with Momentum starts and ends each turn. The Islamic State also commits "Acts of Terror" every turn that increase the likelihood for Intervention, mostly from the U.S.

### PROFESSIONAL UTILITY

Hobby games are frequently portrayed as very complex and overly technically based, with little grasp of human agency or geography. Fighting the Islamic State shows how hobby games can come close to the professional games without requiring an Excon or Umpire.

## **GUERRILLA CHECKERS**

*Designed and organised by Brian Train, BTR Games*

*Both sessions, K0.16*

***NB: This short game is an excellent choice for those wishing to play a few contests and spend the rest of that session browsing other games***

### GAME DESCRIPTION

This short, simple abstract game teaches core asymmetrical warfare concepts simply & elegantly. Equipment: 8x8 square grid, 6 x pieces for the Counterinsurgent (COIN) player, 66 x small pieces for the Guerrilla player. Play: the COIN player begins with all 6 pieces on the board and may move them. The Guerrilla player starts with no pieces, but places 2 per turn and may not move them. Both players seek to capture the other's pieces, by different methods.

### PROFESSIONAL UTILITY

The game is very short (15 minutes or less) and simple, but has deep play and great asymmetry between players. The tactics used in the game can be related to maxims of guerrilla warfare. This game is included among those available for play at the gaming portal found at the Combating Terrorism Fellowship Program's Global Education Collaboration Community Online operated by the Naval Postgraduate School. It has also been used to instruct Officer Cadets at RMA Sandhurst.

## **HYBRID WARFARE MATRIX GAME**

*Designed by Dr James Bennett, DSTL*

*Organised by Dr James Bennett, DSTL and Mr Mike Bagwell, DSTL*

*Both sessions, Great Hall*

### GAME DESCRIPTION

A Matrix Game to explore the ability to detect adversarial hybrid activity, and the tools to deter and respond. The game will consist of 5 teams, representing an adversarial state, two states that are targets of hybrid activity, the media, and the forces of fog and friction. The scenario will use fictionalised states, but will involve the challenges associated with hybrid threats to EU and NATO member states, in particular in the early 'grey zone' phases of a confrontation.

### PROFESSIONAL UTILITY

The purpose of this game is to test concepts being developed as part of the MCDC 'Countering Hybrid Warfare Project'. The game is to be played with an international audience of defence analysts at the Hybrid Warfare Centre of Excellence in Helsinki in October. We wish to play the game at Connections UK to test it and to rehearse facilitating with an experienced and knowledgeable audience.

## **OPERATION MICHAEL - FOG ON THE SOMME**

*Designed and organised by James Halstead, King's College London  
Both sessions, K0.20*

### GAME DESCRIPTION

Fog on the Somme is a game that was developed for the centenary of the battle during Professor Sabin's optional MA module. It is a simulation of the air land battle during the first phase of the German Spring Offensives when the Fifth Army was forced back almost 50 miles to the very gates of Amiens.

Many of the concepts explored in this game will be familiar to those conversant with classic hex and counter military games while relative newcomers will still be able to pick up the rules quickly. Central to the mechanics is an innovative system in which attacks develop 'footholds' in enemy hexes which make it easier to succeed in future attacks.

The focus of the land battle is at the Corps level while airpower is represented more abstractly with each counter representing general 'levels' of air control which each side was exerting on the air battle. The entire system relies upon a broad-brush approach with judicious abstractions but is fully capable of running a simulation of the full air-ground battle in under two hours.

### PROFESSIONAL UTILITY

This game has a number of professional utilities. First and foremost it is a valuable educational tool in demonstrating the difficulties which faced both sides in First World War offensives – even when such a huge amount of combat power was concentrated as was the case with the German Army in March 1918.

The game also illustrates how an ambitious goal of simulating the air-land aspects of a ten day battle can be realised with judicious and measured abstractions. The game is easily playable in two to three hours at most with the individual missions carried out by aircraft simulated through an interlinked rules set.

Finally, the game offers a good example of the quality of work which is produced by students on the MA optional module at KCL. This game was developed as part of the module within a timespan of several months, with much of the playtesting carried out by fellow students on the module.

## **OPERATION VIJAY (1961)**

*Designed and organised by Bob Cordery*

*Afternoon session only, K0.20*

### GAME DESCRIPTION

Goa (and several other smaller enclaves) had been a Portuguese colony on the Indian mainland since the early Voyages of Discovery, and after India had gained independence, the government saw it as a priority to re-integrate the colony into India. This had already happened in Hyderabad (successfully) and Kashmir (unsuccessfully).

In 1961 the Indian Armed forces were given the go-ahead to invade/re-integrate Portuguese-held territory into India but it had to be completed within 48 hours. Resources were made available, and planning began. Once the plans were completed and approved, the invasion/re-integration went ahead.

All this took place against a backcloth of inter-service rivalry and very poor intelligence. There was no guarantee of success, and any of the service that failed to achieve its part of the plan was likely to see less funds being allocated to them in the future.

### PROFESSIONAL UTILITY

Outside of India, Operation Vijay is little known. As such, it is a very useful tool for those wanting to see the interaction between military and political constraints in an environment that is very different from that the players are used to and within a strict timetable. Although the Indian Armed Services still retained a very British outlook and organisation, they were already beginning to develop their own traditions and modern military history.

The players will take on the role of senior officers of the Indian Armed Services, one being the overall service commander and the other the officer responsible for enacting their service's part of the plan.

The game will begin with a detailed briefing, followed by individual services producing their hour-by-hour plans. These will then be brought to the table and integrated. The format at this stage will be a committee game with elements of Matrix Gaming.

Once the final overall plan is agreed, it will be moved onto the map, with (where possible) hour-by-hour bounds being used. At this stage the game will have moved into a more 'free kriegsspiel' format.

In the debrief, the game plan will be compared with the actual plan and how it unfolded.

## **RAPID CAMPAIGN ANALYSIS TOOLSET (RCAT) – HIGH NORTH PROJECT**

*Designed by Graham Longley-Brown*

*Organised by Graham Longley-Brown and Trevor Ringrose, Cranfield University*

*Afternoon session only, K0.16*

### GAME DESCRIPTION

The Rapid Campaign Analysis Toolset (RCAT) is a DSTL-sponsored, Cranfield-produced, operational-level simulation with many variants. It has been used extensively by DSTL, HQ Army, RAF High Command, the Royal Marines and many others to support analytical and training wargames. This RCAT variant will focus on the military threats posed by Russia in the Arctic 'High North' and the challenges faced by NATO and others dealing with these. The scenario assumes that the High North faces a 'spill-over' crisis, caused by a Russian invasion of the Baltic States: Article V has been triggered, and the theatre of operations is certain to expand into the High North.

The purpose of the Connections UK RCAT game is to test the operational-level element in a three-system nested family: geo-political; operational; and tactical. Hence the 'spill-over' scenario needs to be plausible, but the purpose is to develop and test the gaming system, not elicit insights (that will happen later).

Geo-political and non-kinetic factors feature, but the game focuses on warfighting in the High North. All domains (maritime, air, land, cyber and space) will be played. Designed as an analytical tool, the game will be played openly on a single table (although some semi-open game play is being developed).

### PROFESSIONAL UTILITY

The RCAT game is part of a collaborative project between the MOD, Cranfield University and University College London to develop a nested family of wargaming systems to examine an issue from the strategic through operational to the tactical level: in this case the threats posed to the Arctic 'High North'. A Matrix Game provides the geo-political element. Its purpose is to generate a plausible narrative and high-level insights. These are analysed and filtered, and flow down to shape the operational-level RCAT wargame, where they are examined in greater detail. Vignettes from that game are selected for study in the tactical (and sub-tactical) level UCL ASuW wargame.

The 'High North' Project was triggered by a presentation by DCDC at Connections UK last year, but inspired by a similar approach taken by the US Navy in the inter-war wargaming that helped win the war in the Pacific. One objective is to demonstrate that different types of wargame can be used in a complementary manner, even - in fact, especially - those supported by manual and computer simulations. Another is to elicit actual observations, insights and lessons identified pertaining to the Arctic. But wargaming on its own is not a panacea, so these 'OILs' would need to be examined using other forms of analysis, then carried forward into live trials and exercises in a cycle of research that would better inform Defence problems.

## SECOND LEBANON WAR

*Designed and organised by Brian Train, BTR Games  
Both sessions, K0.16*

### GAME DESCRIPTION

Second Lebanon War is a military game for two players exploring the Israeli incursion into southern Lebanon in the summer of 2006, in response to provocations by armed members of the Hezbollah movement. The action begins around July 20, 2006 which marked the beginning of incursions by Israeli ground troops after eight days of intense aerial bombardment. The time covered by an entire game may represent up to three weeks, ending in a ceasefire on August 14, 2006.

Time Scale: 7 turns (2-3 days per turn)

Map Scale: area movement map of southern Lebanon

Unit Scale: company/group to brigade

In this game the Israeli player objectives are to seek out and destroy the Hezbollah presence in the areas bordering on Israel, particularly their rocket and missile units, while refraining from mobilizing too many reserve units. The Hezbollah player moves to frustrate and disrupt the Israeli incursion while maintaining a barrage of destruction on the Israeli territories

### PROFESSIONAL UTILITY

Second Lebanon War is selected from the Brief Border Wars Quad, a set of four mini-games on short border conflicts of the 20th and 21st century (the other conflicts are: El Salvador vs. Honduras in 1969 (also known as “The Football War”), the Turkish invasion of Cyprus in 1974, and China vs. Vietnam in 1979).

Each game is small (40 to 50 counters each) and short (one to two hours), using a common set of basic system rules and a deck of special cards to control movement and combat that models the chaotic, stop-and-start nature of these impromptu wars. The full set of four games will be published commercially by Compass Games in 2019/20.

Because each game is short (limited to 7 turns, with limited activity in each turn) and uses a common set of “system” rules, it is potentially useful as a short classroom game for educational or analytical use. The basic rules are simple but each game also features rules additions and variations to reflect the particular nature of each conflict. For example, the Turkish player in the Cyprus game must establish and exploit from a beachhead, and the Chinese player in the Vietnam game must contend with determined guerrillas and a fatal division of effort between two non-communicating fronts. It would not be difficult for players to construct their own games on other topics, after some research.



## **SECTION COMMANDER**

*Designed and organised by Major Tom Mouat, Defence Academy of the U.K.  
Both sessions, K0.20*

### GAME DESCRIPTION

Section Commander is a small unit role-playing game intended to explore tactics, techniques, procedures and equipment selection at the sub-unit level, in a contemporary setting. Players will normally represent the 8 personnel in a modern rifle section: the Section Commander, the 2IC, and the 6 riflemen armed with L85A2 rifles, L86 5.56mm LSW, L85A2 5.56mm rifles with a 40mm underslung grenade launcher or an L110A1 5.56mm light machine gun, or an L129A1 7.62×51mm sharpshooter rifle. It is intended to be "rules lite" in order to make the game as accessible as possible, as well as requiring minimal components. Players will be required to analyse a plan, select the equipment necessary to carry out the plan (with an eye to assessing the personal load against the mission requirements), and then executing the mission, before carrying out an After-Action Review.

### PROFESSIONAL UTILITY

Section Commander can be used professionally in a variety of ways for education, training, and analysis. At a basic level it can be used to educate personnel as to equipment characteristics and performance, as well as the necessity to fully understand the strengths and weaknesses of the personnel in the sub-unit in order to be most effective. For training it can be used for procedural training in the planning and execution of a simple mission. For analysis it can be used to critically examine the utility of various pieces of equipment assigned to missions, by grouping such equipment after multiple missions into different categories: Essential equipment, used constantly on all missions as standard (which should be the most robust, reliable, effective and lightest equipment available); Priority equipment, used for specific missions or more rarely (which could be government "off the shelf" equipment procured locally or from other nations with a history of combat effectiveness); and Limited Use equipment (which can be procured at short notice from the most available source and possibly discarded after use).

## **STRIKE! BATTLEGROUP TACTICAL WARGAME**

*Designed by Michael J Young*

*Organised by Michael J Young, DSTL and Fred Hood, DSTL*

*Both sessions, K0.20*

### GAME DESCRIPTION

This is a game that the Defence Science and Technology Laboratories (DSTL) made for the UK armed forces, in particular the STRIKE Experimentation Group (SEG). These people are responsible for the introduction of the UK's new Ajax Recce vehicle and the Mechanised Infantry Vehicle (MIV) into the new Strike Brigade. The brigade needs doctrine and tactics to be developed for it, to both face the enemy and work out the most useful way for it to interact with the existing Armoured Infantry forces.

The STRIKE! battlegroup tactical wargame is a hex based tactical game with each 1 inch square counter representing a platoon of 3 or 4 vehicles. Each hex represents an area about 500m across and each turn represents about half an hour of elapsed time. It is derived from the system used in Frank Chadwick's "First Battles" series of games. The wargame has been produced as a stand-alone boxed game, containing all the rules, counters, scenarios etc. necessary to play the game, and is designed to be easy to play and learn.

The wargame contains maps for actions in Eastern Europe, in East Africa and on Salisbury Plain, and counters for both a Strike Brigade and a standard Armoured Infantry Brigade. Opposition counters have been printed for both a peer enemy (with counters for an entire mechanised infantry brigade) and a sub peer enemy (the kind that you may encounter in Africa). There are also counters for engineers and helicopters to round off the set.

### PROFESSIONAL UTILITY

This game has been built from the bottom up for the military. It is designed to be simple to teach and use, yet at the same time to contain enough detail to satisfy those who are interested in examining the finer points of ground combat. It is intended for training the UK Army as it seeks to develop a doctrine for the Strike Brigade. The game was developed to support a training exercise. The Army subsequently requested several copies of the game for use by its units, and as its fame and utility spreads even more requests for demonstrations and copies of the game have come in.

## **SUPER SOLDIERS AND KILLER ROBOTS**

*Designed and organised by Jim Wallman, Director: Stone Paper Scissors Ltd  
Afternoon session only, K0.17*

### GAME DESCRIPTION

There is an ongoing interest in the ways in which the military community can be prepared for the impact of new technology over the next 20 years or so, and in particular how wargames assist that process. This was explored in a practical way in recent UK exercises (EX EAGLE WARRIOR and EX AGILE WARRIOR).

### PROFESSIONAL UTILITY

This a wargame using unclassified sources to explore a way in which novel technologies can be examined and observations, insights and lessons gained using a simple multi-player wargame structure. This shortened version is based on the Wargame 2020 game system and looks at a number of near-future technologies and their potential impacts. It is suitable for all levels of wargame experience from the complete novice through to the hardened veteran.

## **SWEDISH NATIONAL DEFENSE UNIVERSITY OPERATIONAL WARGAME**

*Designed and organised by Lars Henåker, Swedish NDU  
Both sessions, K0.20*

### GAME DESCRIPTION

This is a board game, 2 m x 2m in size, using about 1250 counters. The narrative follows scenarios in and around the Baltic Sea. It is suited for 6-12 persons playing two or more sides. All the rules are written in Swedish. It usually takes 3-4 days to play this wargame through. So in this case, the participants only have the time to learn about the rules and play one round.

### PROFESSIONAL UTILITY

This game has been used in the education of officers on the higher level (Major – Lt Colonel) in decision making and planning.

## THE WESTERN APPROACHES TACTICAL UNIT WARGAME

*Designed and organised by Paul Strong and Sally Davis, DSTL  
Afternoon session, K0.18*

### GAME DESCRIPTION

“...the Captain [...] was away: he had, in fact, gone back to school. For a fortnight he had been at Liverpool, caught deep in the toils of something which, innocently labelled ‘Commanding Officers’ Tactical Course’, had proved an ordeal of the most daunting kind. The course was intended to illustrate the latest developments of the war in the Atlantic, and to provide a practice ground for close study of them: there was a series of lectures, and then, each afternoon, the officers under instruction were installed in a large empty room, on the floor of which was a ‘plot’, with models to illustrate the convoy, the escort, and the threatening enemy. The ‘convoy game’ began: ‘sighting reports’ came in, bad weather was laid on, ships were sunk: U-boats crowded round, and the escorts had to work out their counter-tactics, and put them into effect, as they would do at sea. A formidable RN captain was in charge: and large numbers of patient Wrens stood by, moving the ship models, bringing the latest ‘signals’, and sometimes discreetly advising the next course of action. Rather unfairly, they seemed to know all about everything.”

— Extract from ‘The Cruel Sea’ by Nicholas Monsarrat

### PROFESSIONAL UTILITY

The Western Approaches Tactical Unit (WATU) was a Royal Navy analysis team founded in early 1942. Their remit was to study the conduct of convoy operations, to understand how the U-boats operated and to formulate tactics to counter this evolving threat.

The unit was made up of experienced naval officers and a number of talented young women from the WRNS. Using conceptual/analytical wargames, WATU developed a range of tactics during the war and disseminated these to over 5,000 Allied officers through a series of lectures and tactical games. The wargame process they developed made a major contribution to the training of escort officers and was used to develop and refine new ASW tactics. Many of these appeared in the Atlantic Convoy Instructions and were used with considerable success by Allied naval forces during the decisive engagements of the Atlantic War.

The wargame includes numerous lessons for modern defence analysts and is one of the examples used in the MoD wargaming handbook as an exemplar of the use of wargaming as a tool for modern defence analysis. The intent of our game is to understand how the game actually worked so we can better understand the contribution of WATU to the Allied victory in the Battle of the Atlantic.

## URBAN OPERATIONS - QUICK SCENARIOS

*Designed and organised by Lieutenant-Colonel Sébastien de Peyret, French Army,  
Evening session only, K0.20*

### GAME DESCRIPTION

Distributed by Nuts! Publishing from Summer 2017, Urban Operations is a block boardgame, representing tactical combat of dismounted sections and vehicles in a company-level environment. Combination of 3D support, combat support and close quarter combat are highlighted, as well as the impact of the urban environment on the decision making process of tactical leaders. The Connections UK 2018 Games Fair is the first occasion to present a new way of discovering the game, through short adapted scenarios, at platoon level, with all rules.

### PROFESSIONAL UTILITY

Designed for a dual purpose (hobby gaming and professional education & training), Urban Operations is used or studied in many different contexts in France and other nations:

- Continuous training of the instructing staff in the French Army national urban operations training centre (CENZUB, Sissonne).
- Training and education in urban warfare, by CENZUB, of regimental staff preparing for deployment.
- Amongst other games, a demonstration of boardgames' ability to support the educational process in command and staff college.
- Initiation of technical staff in the armament industry to understand the operational requirement of their customers.
- Integration in an educational process (see Rex Brynen: <https://paxsims.wordpress.com/2017/10/01/review-urban-operations/>)

## **WE ARE COMING, NINEVEH!**

*Designed by Rex Brynen, McGill University*

*Organised by Harrison Brewer, Juliette Le Ménahèze, Rex Brynen, and Brian Train*

*Both sessions, K0.20*

### GAME DESCRIPTION

We Are Coming, Nineveh! is an operational-level game of the Iraqi government campaign to liberate the western half of the city of Mosul from the forces of Daesh between 19 February and 9 July 2017. This was one of the largest and most difficult urban operations of the post-WWII era, and marked a major defeat for Daesh and its so-called “Islamic State.” Each turn represents approximately 2 weeks of gruelling combat.

The map depicts the major areas of west Mosul, including the densely-built Old City where Daesh forces made their last stand. Units each represent 100 or so Daesh fighters, or battalion-sized units of the Iraqi Army, Ministry of the Interior, and elite Counter-Terrorism Service (CTS). Before the operation starts, players choose a number of special capability cards, reflecting their planning and preparations for this long-awaited battle. During each turn, event cards can be triggered at any time by either player. Some of these indicate the growing collateral damage done to the city and its people. Others generate tactical vignettes. Troops can get lost in the maze of small streets, communications can break down, and commanders can be faced with difficult moral and operational choices. The use of blocks maintains uncertainty and the “fog of war.”

### PROFESSIONAL UTILITY

The game is relatively simple to play, yet highlights the key tactical and operational choices and trade-offs faced by commanders operating in the contemporary urban battlespace. The capability and event cards can easily be customised to reflect other operations, as well as to explore the potential impact of new capabilities.

We Are Coming, Nineveh! was first designed by students in a wargame design seminar at McGill University, and so also demonstrates the utility of conflict simulation as a teaching and learning tool.

## **1812: THE INVASION OF CANADA**

*Designed and organised by Tom Halliday, DSTL Analyst  
Evening session only, K0.16*

### GAME DESCRIPTION

In support of the French and to fulfil their ambitions of international recognition as a major power, in 1812 the United States launched an invasion across the Canadian border in a bid to beat the British empire for the second time in 40 years. A highly contested war ensued, with raids and battles up and down the continent, with the balance of the war up in the air right until the end.

1812: The Invasion of Canada is a game of coalition warfare for five players, featuring the American Regulars and Militia as the aggressors and Canadian Militia, British Regulars and Native Americans on the defending side. Every turn each player will play a single movement card which dictates how many different armies can move and how far each of them can go. Crucially, allied units can be moved as long as at least one of the active player's units is also in the group, forcing players to consider their positioning in a coalition context.

This is further reinforced by the ability of each faction. The Militias can bring large numbers of troops into the battle and absorb the blows for their better trained Regular counterparts, but can't be trusted to stick around once the shooting starts. The Native Americans act as something of a wildcard – not very competent in a stand up fight but able to infiltrate into the United States and cause chaos and distraction in their back lines.

The game ends when all the players of one side play their 'Treaty of Ghent' movement card, meaning that the pace of the game is actually dictated by the players themselves, who will seek to delay the game whilst they are losing and then quickly rush to victory when they're in a winning position. 1812 is a great game for those new to wargaming as it plays quickly and simply, providing an exciting and intriguing strategic problem to consider. Even for those familiar with wargaming, it features a number of innovative mechanics which are rarely seen elsewhere.

### PROFESSIONAL UTILITY

1812 can be used as an excellent introductory wargame for those who are unfamiliar with the concepts of gaming. It provides an exciting and fun experience for all the players, and shows how a theme can be evoked and historical lessons can be learned even with very simple mechanics. For those who are already familiar with wargaming, 1812 is a treasure trove of interesting mechanics and decisions, most of which have yet to be fully exploited or appreciated in wider gaming. Its model of coalition warfighting can easily be adapted to other areas (infantry/armour/artillery coordination for example) without losing its elegance. Similarly its use of individualised cards and bespoke dice to dictate movement and combat could be implemented in many different systems.

From an educational perspective, it offers a great insight into the war itself in terms of its back-and-forth nature and the difficulties both sides faced in achieving a decisive conclusion. It also offers a gateway into the rest of the series which covers the American Revolution and French-Indian War, and recently the Viking invasions of Britain.

## **FUTURE ARTILLERY CONCEPTS**

*Designed and organised by Alastair Morley, MBDA UK  
Both sessions, Great Hall*

### GAME DESCRIPTION

Players command divisional fires assets in a future high intensity warfighting environment between NATO and a peer adversary.

The Future Artillery Concepts Wargame an open, turn-based, two sided game, where players command divisional fires in support of the land battle. Players must task their units whilst allocating ISTAR effort and fires to achieve success. Innovative mechanics demand risk management between survivability and lethality whilst allowing multiple strategies in pursuit of victory; shall you concentrate on the counter-battery battle? Destroy your opponent's logistics? Or focus fires in support of your struggling front line troops? Every turn brings dangerous choices between a wide range of targets in the face of a merciless opposition.

This is an MBDA developed wargame to support a MoD customer in exploring the future surface-to-surface fires environment. It has a particular focus on the interaction between weapon system, munition, and ISTAR/targeting capabilities.

This version of the game has been modified and scaled for quicker play whilst retaining the core game elements.

### PROFESSIONAL UTILITY

The wargame was played in the early part of 2018 and had the following objectives:

- 1) Illustrate several future artillery concepts and their capabilities
- 2) Allow the players to gauge the utility of various Key User Requirements.
- 3) Generate common awareness of the characteristics of the future artillery battlespace
- 4) Provide a networking stakeholder environment

The game features several novel mechanisms to be “beginner friendly” and quick to play, whilst generating sufficient complexity in study areas of interest.

Engagement mechanics capture the complex interaction between ISTAR, network, target, terrain and complex weapons without extensive calculations or lookup tables. An ISTAR “soak” system allows for open play, whilst conventional wargame terrain is abstracted into a linear battlespace and players are not required to perform detailed manoeuvre of units.

Randomly presenting target cards emerge from the fog of war and force players to adapt to opportunity. Destruction of different targets drives three sets of scoring tracks: ISTAR, Logistics and FEBA as well as the counter-battery battle itself. This allows players to explore many different strategies by degrading inter-dependent aspects of their opponents' capability.