

# History of Wargaming in the Australian Army

Work in Progress

# Principal Sources

- Australian Army. 1998. (Dean Davidson ed) History of Simulation Wing.
- Australian Army. 1980. Training Information Bulletin No 52: Training Simulation Techniques – War Games. December 1980.
- Australian Army. 1984. War Gaming in the Australian Army.

# Roots of Wargaming

- 1809-1824  
Development of the  
Reisswitz  
Kriegsspiel



# Pre-Federation

- 1872 British Kriegsspiel
- 1884 British “Conduct of the War-game”
- War gaming largely supported by reservists.
- 1894 LT Monash lecture at RUSI-Vic “The Evolution of Modern Weapons” recommending wargames at “the club”



# 1918 Battle of Hamel (4 July)

- Planning May to July - plenty of time for wargaming.
- Use of combined arms, close air support and situational awareness, deception, secrecy, armoured transport of supplies and casualties.
- FitzSimons refers to an account from CAPT Lawrence Wackett of a “conference” on 28 June:

“the usual way is for the commanding officer to simply send out very specific written orders, with little reference to others involved in the battle. But now, they are being asked their opinion? Now they are being asked what innovations they might add or offer to the broad plan... Each commander or service had the advantage of not only receiving instructions regarding his own action, but also of hearing in full detail the instructions conveyed to his colleagues ... he had an opportunity of considering the effect of their action on his own”.
- Perla 2011: “Narrative” in Why Wargaming Works

# 1918-1980

- Exercise Papers (1977)
  - Services Analytical Studies Group established in 1974.
- TIB 52 (1980)
  - During the First World War and inter-war years, war gaming became widely accepted in most armies.
  - The Scientific Services Office has been “actively engaged in war games since 1969” and that “units and formations ... have been developing and employing war games to achieve collective and individual training objectives for a number of years”.
- AOSI 33/81 (1981)
  - Central Studies Establishment (CSE) was established in 1979 to develop expertise in war gaming.
- ACP 33-2 (1989)
  - “In 1969, the Services Analytical Studies Group (SASG) began providing assistance to Army schools in the development of training war games ... [and] analytical support for major equipment and organisational proposals... [in 1981] the responsibility for war gaming was transferred to the Central Studies Establishment (CSE)”

# TIB 52 (1980)

## Training Simulation Techniques

### – War Games

- “A war game is a simulation technique depicting operations involving two or more opposing forces, conducted using rules, data, and procedures designed to represent an actual or assumed military situation.”
- “Training war games are used to achieve individual and collective training objectives by teaching or revising operational command and staff skills.”
- “Games used in exercise development and evaluation ... are used to develop and test current doctrine.”
- “Research games are analytical techniques used to investigate a wide range of future operational settings ...”

# List of Games (1)

- **New Pin.** A movement war game covering the movement of supplies and operation of terminal facilities.
- **Cane Toad.** A logistic war game covering problems involved in the deployment, build-up and daily maintenance of a corps force deployed from SE Australia to Qld.
- **Buffalo Drive.** An admin war game set in a Communications Zone designed to support a corps force in the Darwin area.
- **Mobile Store.** A transportation war game designed to train and exercise staffs of RACT Div, Regt HQ and Sqn HQ.
- **Sea Lion.** A war game designed to exercise comd and staff skills in a terminal regiment down to troop level. Game is set in Jervis Bay area and concentrates on a LOTS operation.
- **Batman.** A war game involving the management of surface and air weapon systems designed to exercise their use and demonstrate their probable effectiveness.



# List of Games (2)

- **Kokoda.** An individual training war game designed to be played at bn/ regt level set in the Singleton area for Infantry Corps students.
- **Bridled Fury.** An individual training war game designed to be played at bn/ regt level for Armoured Corps students. (no longer in use as at 1980)
- **Distant Drum.** An individual training war game designed to be played at TF level set in NW Australia. (no longer in use as at 1980)
- **Barossa Pearl.** An individual training war game designed to be played at bn/ TF level for Army Reserve tactics coaching courses. The game is set in the Barossa Valley.
- **Water Buffalo.** A headquarters staff training war game played employing the major elements of a Div HQ.

# AOSI 33/81

- Army office issued AOSI 33/81 “War Gaming in the Australian Army” to define Army policy on the development and use of war gaming, and responsibilities for its implementation.
  - war games should “be **essentially manual** so as to enhance their flexibility” and computer assistance should be focused on “facilitating adjudication and game management; development and storage of a planning database; and recording play for later analysis.”
  - FF Comd responsible for developing war games (scenarios, rules, manuals, maps etc)
  - Trg Comd and Log Comd identify applications fro war games and use existing games where possible.

# HQ Trg Comd

- 1982. Issued The Conduct of War Games in Training Command.
- Identified the need to train “officers and soldiers who are to **design, conduct, control and assess training war games**” and noted such training would be developed by nominated schools.

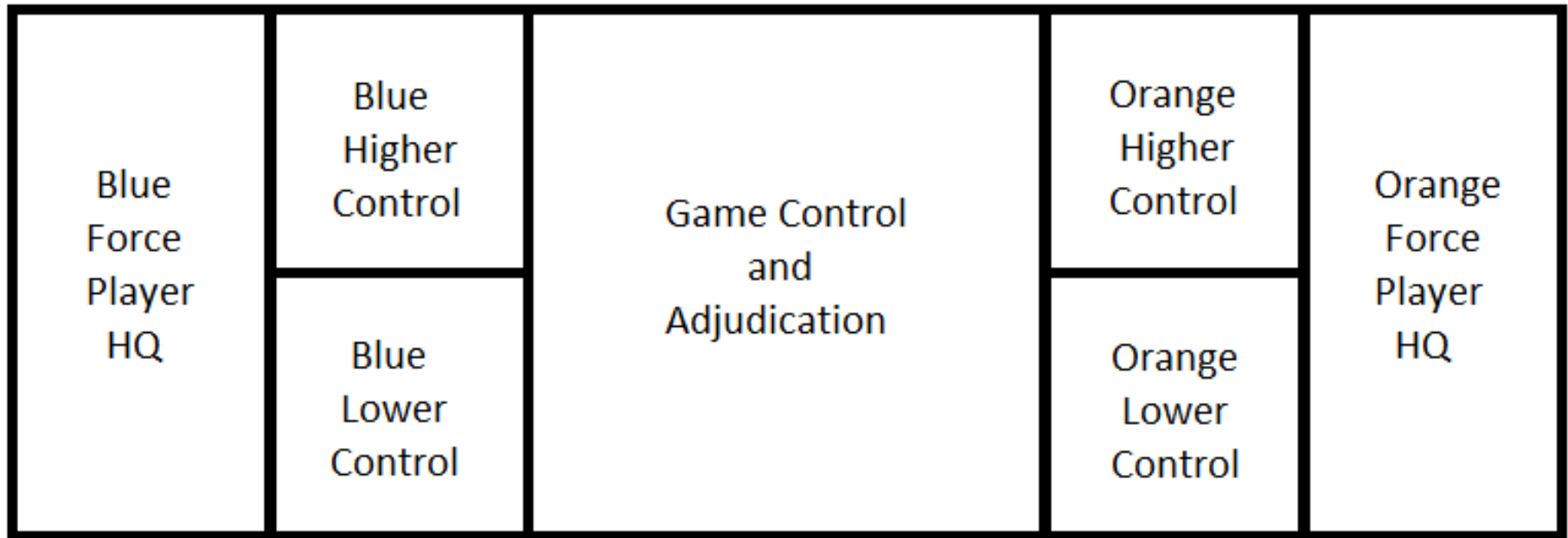
# 1984 War Gaming in the Australian Army (AWGC)

- Partial update of TIB 52.
  - Terminology
  - Guidance on planning
  - Guidance on manning
- Rationale for a single centre of excellence.
- Rationale for development programs for training and analytical computer systems.

# Purpose of War Games

- Practise decision making at all levels
- Train HQ from company to corps level in staff procedures
- Test and exercise automated command and control systems
- Assist in the development, refinement and testing of contingency plans and major field exercises
- Practise skills at levels of conflict which would normally be beyond Army's manpower and training resources
- Conduct operations research:
  - to analyse the force structures needed to counter threats at all levels of conflict
  - to test the effects on force structure of proposed new capabilities and equipments
- Analyse doctrine

# Structure of a War Game



# Types of War Games

- Training, analytical
- One, two or multi sided
- Closed, open
- Event driven, time driven
- Manually controlled, computer assisted, computer controlled

# Aims of Automation

- Enhance scope
- Reduce control personel
- Exercise or test automated C2 system
- Record events for analysis



# International Procedural War Games

- **First Battle.** Manual Divisional level requiring large control staff.
- **War Eagle.** Corps level implementation of concurrent “First Battle” games.
- **CAMMS.** Computer Assisted Map Manoeuvre Simulation. Battalion to division level.
- **CATTS.** Battalion level prototype computerised simulation.
- **ARTBASS.** Computer assisted simulation at battalion level. It uses a 3D digitised terrain model. Portable through the use of dedicated “computer vans”.
- **MACE.** Low cost version of ARTBASS using micro computers and video discs.
- Canadian DLOR developed an unnamed brigade level manual game for training and analysis.
- UK fielded a battalion level manual game called **Battle Group Trainer.**
- NZ developed **First Foray** based on **First Battle.**

# Accelerated Time Decision War Games

- **Kokoda.** Set in the Hunter Valley and designed to practice students in infantry battalion group tactics.
- **Sea Lion.** A family of scenarios designed to practice aspects of logistic operations, particularly ship to shore.
- **Broken Pelican.** Designed to practice airlanding and aerial resupply of a division.
- **Broken Playtime.** Designed to practice third line road transport operations.
- **Water Buffalo.** Designed to exercise operational and logistics planning in conventional mid-intensity warfare. Aimed at brigade to division.
- **Buffalo Starlight.** Uses the Water Buffalo scenario to exercise medical staff planning.
- **Mobile Store.** Uses the Water Buffalo scenario to exercise road transport and planning.
- **Buffalo Holdfast.** Uses the Water Buffalo scenario to exercise engineer operations.
- **Buffalo Gun.** Uses the Water Buffalo scenario to practice artillery planning at corps and division level.
- **Northern Acorn.** Based on Northern Rivers scenario used to practice intelligence planning (under development).

# Real Time Decision War Games

- **Violent Destruction.** Set in the Batchelor area of the NT. Designed to practice armour tactics up to regimental level and used in ROBC, ROAC and crew and section commander courses.
- **Geelong Gallop.** Used at C&SC to practice planning and execution of division level defensive operations.
- **Station Bazaar.** Used at C&SC to practice planning and execution of division level offensive operations.

# AOSI 17/84 Responsibilities

- Identified responsibilities for wargaming between Army Office, FF Comd, Log Comd and Trg Comd
- Army Office responsible for policy.
- FF Comd and Log Comd to identify applications and conduct war gaming.
- Trg Comd responsible for developing training and analytical gaming.
  - foster the use of war games throughout the army
  - conduct war games as directed by Army Office
  - promulgate and maintain a catalogue of war games
  - collect, consolidate and disseminate war game information
  - advise commands on the est use of war games
  - assist commands in the development and conduct of war games
  - conduct war game training
  - act as Training Advisor for war gaming
  - act as the Army POC for technical aspects of war gaming

# AOSI 17/84 Priorities

- Training War Games
  - Priority 1
    - Develop computer assisted procedural war games at unit and brigade level
    - Develop manually controlled decision war games at unit and brigade level
    - Refine the Command and Staff College war game Ex Terr Australis
  - Priority 2
    - Develop a computer assisted procedural war game at division level
  - Priority 3
    - Develop decision war games at division level and above for schools and HQ
    - Support HQ Log Comd logistics war games
- Analytical War Games
  - Develop an analytical war game capability

# Manual of Army Training

- Volume 2, Part 2 All Corps and Joint Training, Chapter 2-4 War Game Training (circa 1984)
- Replaced AOSI 17/84 but reiterated responsibilities.
- Wider distribution and official doctrine.

# Towards Computerisation

- Up to 1980 all wargames were manual
- In 1982 the War Game Cell developed Exercise Water Buffalo. The scenario was based on Ex Distant Drum with Rules based on “JIFFY” (USMC) and the Canadian Directorate of Land Operations Research.
- In 1983 work began developing a computer assisted version of the Water Buffalo rules, which became known as **Cannon Row** (homage to “Gunshot Alley”).
- 1984 staff selected BABAS from the USA as a computerised battle simulation. However, the code was difficult to Australianise, so it was redeveloped as **CombatSim**.

# Analytical Wargaming

- 1982 war game cell established within DGAD. Tasked with producing handbooks (incomplete as at 1984)
- In 1989 CDF directed all force development proposals were to be supported by analytical studies.
- Army Capability Proposal 33.2 to procure a suitable computer simulation. Janus was selected and introduced in 1990.
- Janus(AS) developed 1990 to 2009 and used until 2016.
- Analytical games
  - Exercise Cyclops Dilemma 1990
  - Mobility and firepower studies 1991-1995
  - RTA 1997-1999
  - Headline 2000-2007.
- Combined arms decision training from 1993. Combat Officers Advanced Course
- Replaced for training in 2016 by JCATS. Analysis?



# Army War Game Centre

- 1981 War Game Cell in Logistics Plans Group, FF Comd Moore Park
- Late 1982 War Game Cell moved to Victoria Barracks under command of Dev Branch FF Comd. Regular officers attached.
- March 1984 AWGC established at Army offices in Liverpool st, then transferred to HQ Trg Comd at Georges Heights
- 1993 renamed Army Battle Simulation Group
- 1997(?) renamed Army Simulation Wing under command Combined Arms Training and Development Centre
- 1998 renamed Simulation Group
- 1999 moved to Puckapunyal (only 5 of 28 pers moved)
- 2000 establishment of Combat Training Centre - Battle Command
- 2001 brief existence of separate Army Simulation Office
- 2003 (?) re-renamed Army Simulation Wing

# War Gaming in Other Services

- 1979 Naval Wargaming in the 20th Century.
  - Charles H Mann
- 1989 “Bateman Paper” explores need for joint war gaming.
  - LCDR Sam Bateman
- 1991 Wargaming in the RAAF.
  - SQNLDR Peter McCarry

# Categories

- TIB 52 (1980)
  - Training, exercise development and evaluation, research
- AOSI 33/81 (1981)
  - Training
  - Evaluation: evaluation, exercise development, force structure or equipment analysis
- AOSI 17/ 84, MLW 3-1-4 Training Exercises
  - Training: decision games; procedural games
  - Operations Research: analysis of force structure, doctrine and equipment; exercise and contingency plan development
- MAP (not yet reviewed)
  - COA analysis

# Definition

- A wargame is an interactive simulation of a military or paramilitary situation for the purpose of:
  - gaining insight (learning)
  - therapy
  - entertainment
- Categorise by learning objective

# Simulation vs War Game

- TIB 62 defined “simulation” as a “technology”.
- TIB 52 called war games “a simulation technique”.
- The definition of war game emphasises “rules, data and procedures”.
- AWGC changed its name to ABSG in 1993.
- 1990s - rise of LVC paradigm.
- By 2001, responsibility to “foster and develop war games” had disappeared.
- 2004, ADFP 7-0-3 Exercise Planning, lists “wargames” as a form of exercise and has a chapter on “computer-assisted simulation”. (repeated in 2010)
- In 2012, MAJGEN Orme reflected that “simulation” had been too technology focused.
- 2017 FORCOM held wargame conference that recommended “a surge into wargaming”.

# Where to Next?

- Continue to review available documents.
- Document extant exercise papers.
- Identify additional documentation to request.
- Identify potential key individuals for interview.
- Try one of the older games/ scenarios?

Thank You