Matrix Game Methodology Development and Employment for Vancouver 2010 Olympics Marine Security Planning

Presentation to ISMOR 2010

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Background

- Force Protection Matrix Game (FPMG) is a Table-Top Exercise (TTX) methodology developed and refined by DSTO in Australia.
- Methodology was transferred to Canada through TTCP.
- FPMGs conducted in Australia were used for multi-agency harbour security planning.
- Matrix Games have been used to exercise marine security plans for Vancouver 2010 Olympics preparations.
- Methodology targeted to investigation of multi-agency C2 issues.

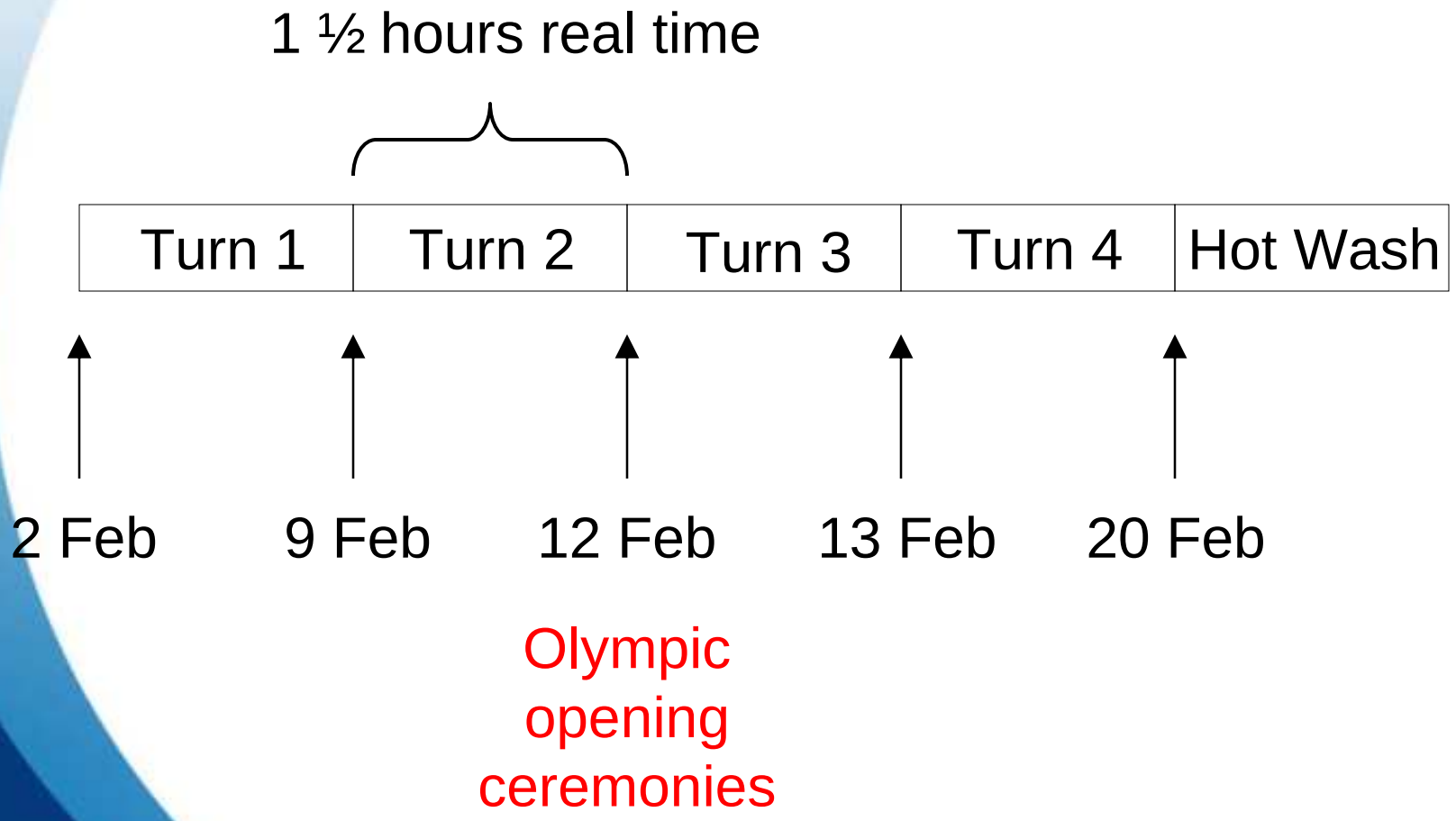
Background

- Three Matrix Games have been conducted for the Olympic Marine Operations Centre (OMOC)
  - FPMG Marine One (Oct 2008)
  - FPMG Marine Two (Nov 2008)
  - Integrated Safety/Security Matrix Game – Marine III (ISSMG III) – June 2009
- This presentation will discuss our findings regarding the methodology, what characteristics were most useful, and how the methodology was refined.

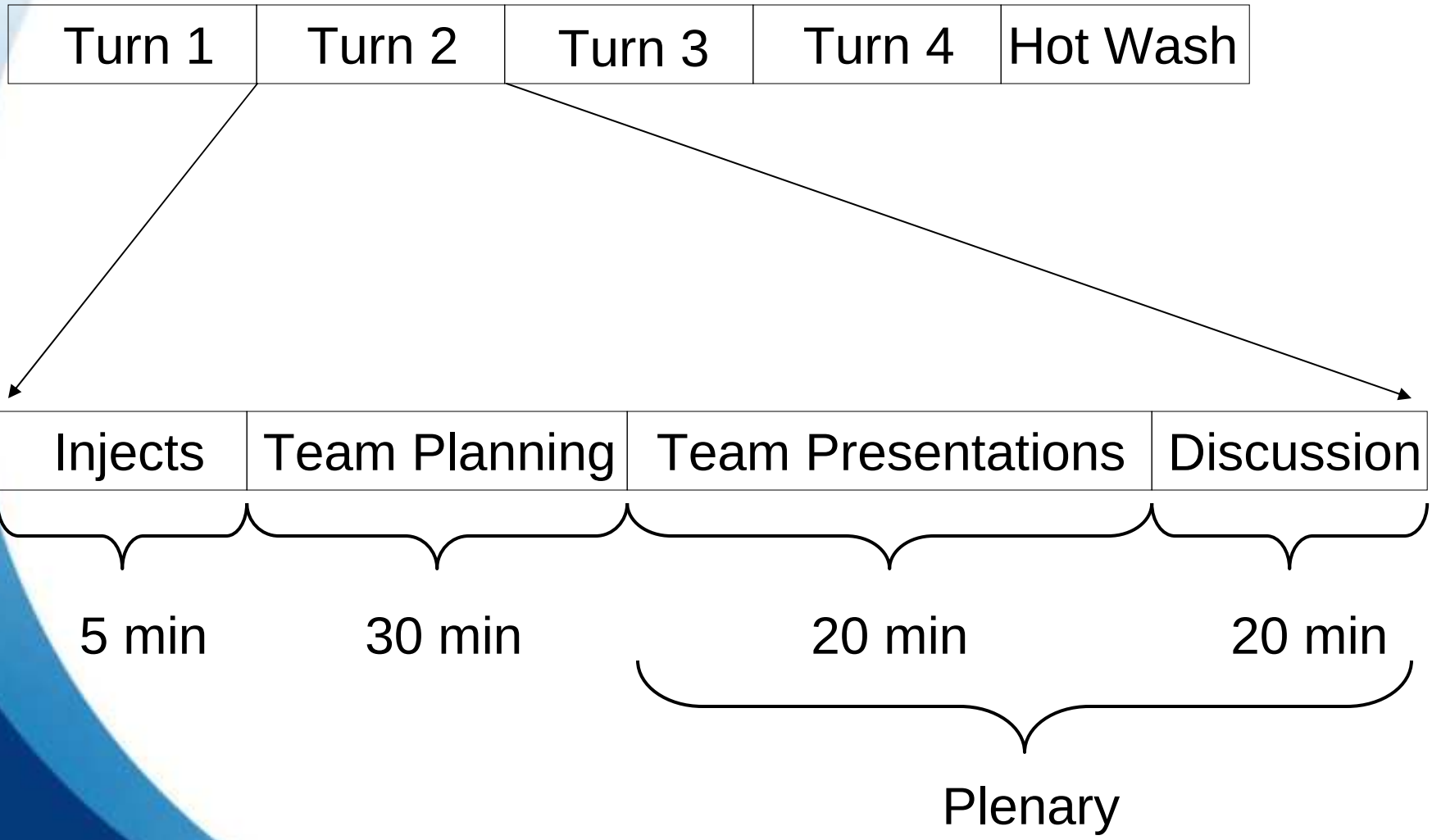
FPMG Methodology - Generic

- Turn based: Game time is divided into a series of “turns”, each of which represents a certain amount of game time.
- Participants are provided injects and scenarios developed to meet game’s objectives.
- Participants complete a turn sheet that includes:
  - Actions they will take in light of information provided;
  - Expected effects of those actions;
  - Consequences (negative/positive); and,
  - Enabling capabilities for undertaking action.

Game Timeline



Game Timeline (2)



FPMG Marine One - Setup

- Conducted over 2 days
- 22 Participants divided into 7 teams
- Legal and Media teams included
- Team breakout rooms and planning sessions
- 4 turns
- 10 injects per turn
- Very structured

FPMG Marine One – Turn Sheet

Turn Sheet – Force Protection Matrix Game		
Team:		**Turn 1**
Actions – Including media strategy, security level changes, and communication with other agencies		
Effects – List the desired effects that the actions are intended to achieve		
Resources and Enablers		
Other Consequences of Actions – Positive or negative, intended or not		
Additional Comments		

FPMG Marine One – Sample Findings

- Intelligence Issues – Olympic intelligence setup not understood
- Disparities in security level classifications between agencies
- Communications – Technical & Procedural

FPMG Marine One – Findings on Methodology

- Overall very useful
- Many important issues were discovered and explored
- Time constraints
  - Too many injects
  - Team breakout time
- Difficult to group teams
- In-depth discussions were difficult
- After-Action Report delivered to client two days after FPMG
- Confirmed desire for second FPMG

FPMG Marine Two - Setup

- Methodology was modified and refined
  - Space and time constraints
  - Fewer participants
  - Lessons learned from FPMG Marine One
- 9 participants, no team groupings
- 4 injects per turn
- Structured turn sheet
- More dynamic facilitation

FPMG Marine Two – Turn Sheet

FPMG – MARINE TWO – TURN SHEET

TURN NUMBER:	AGENCY:		SECURITY LEVEL:	
INJECT	**DECISIONS & ACTIONS (OR COMMENTS)**	**DESIRED EFFECTS**	**RESOURCES & ENABLERS**	**CONSEQUENCES Positive or Negative Intended or Not**
1				
2				
3				
4				

Decisions & Actions – Can also include communications with other agencies.
Comments – Concerns can be noted, even if the inject does not directly affect your agency.

FPMG Marine Two – Sample Findings

- Requirement for joint procedures
  - VIP plans, including evacuation
  - Contact fan-out lists
  - Transport of EOD, CBRNE, EMS staff
  - Many more ….
- Marine security barriers
- Issues identified in 10 areas, 8 specific recommendations made

FPMG Marine Two – Findings on Methodology

- Refinements to methodology proved positive
- High utility; many issues were able to be explored
- More free-flowing and in-depth discussions
  - Smaller group
  - More dynamic facilitating
- Benefited from shared experience of FPMG Marine One
- Letter Report draft given to client three days after FPMG

ISSMG Marine III - Setup

- Conducted over 2 days
- 56 Participants from 27 organizations
- Intelligence and cross-border groups added
- Computerized setup with turn sheets to facilitate plenary discussion and data gathering
- 3 turns, 7-9 injects per turn
- Scenarios, participants, and data capture tailored to client objectives

ISSMG Marine III – Turn Sheet

Integrated Safety/Security Matrix Game - III
TURN SHEET
Note: Address injects only if you expect to have knowledge of event, based on integrated plans, V2010 CONOPS, and normal operating procedures

Team: 1 **Turn Number: 2**

Inject Number	Would I have this Information? Source of Info	Decisions & Actions	Effects & Consequences Positive or Negative Intended or Not	Required Resources & Information

Actions – including media strategy, security level changes, and communications with other agencies.
Effects – List the desired effects that the actions are intended to achieve.

ISSMG Marine III – Sample Findings

- Many intelligence and information flow issues were resolved
- Gaps in cross-border procedures identified
- Use of captured data as basis for joint procedures
- Olympic Marine Operations Centre should progress to Command Post Exercises

ISSMG Marine III – Findings on Methodology

- Combined best characteristics of first two iterations
- New IT setup developed was effective – smoother game flow and better data capture
- Many issues were explored with input from many participants. Scenarios and participants were tailored to client objectives
- Efficient and orderly exploration of very complex situation with many participants, covering many issues

General Findings

- Very successful overall, useful to the sponsor
- Generated results communicated back to client quickly in Letter Reports with multiple recommendations
- A robust methodology developed and employed in Australia was successfully leveraged to Canada through TTCP partnership
- FPMG Methodology is flexible and was tailored to specific needs for each iteration
- Refinements in successive games improved results
- Repeating the game after a short interval helped build team understanding and working relationships

Conclusion

- This methodology is very useful for exploring complex scenarios and issues with diverse stakeholders
- Benefits of Games come from both mutual learning of participants, and data capture provided by the methodology
- Reports in progress
  - Technical Report on operational findings
  - Technical Report on methodology

Credits

Thanks to:

- Paul Saunders, Ben Lombardi, David Rudd, Bruce Sand
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