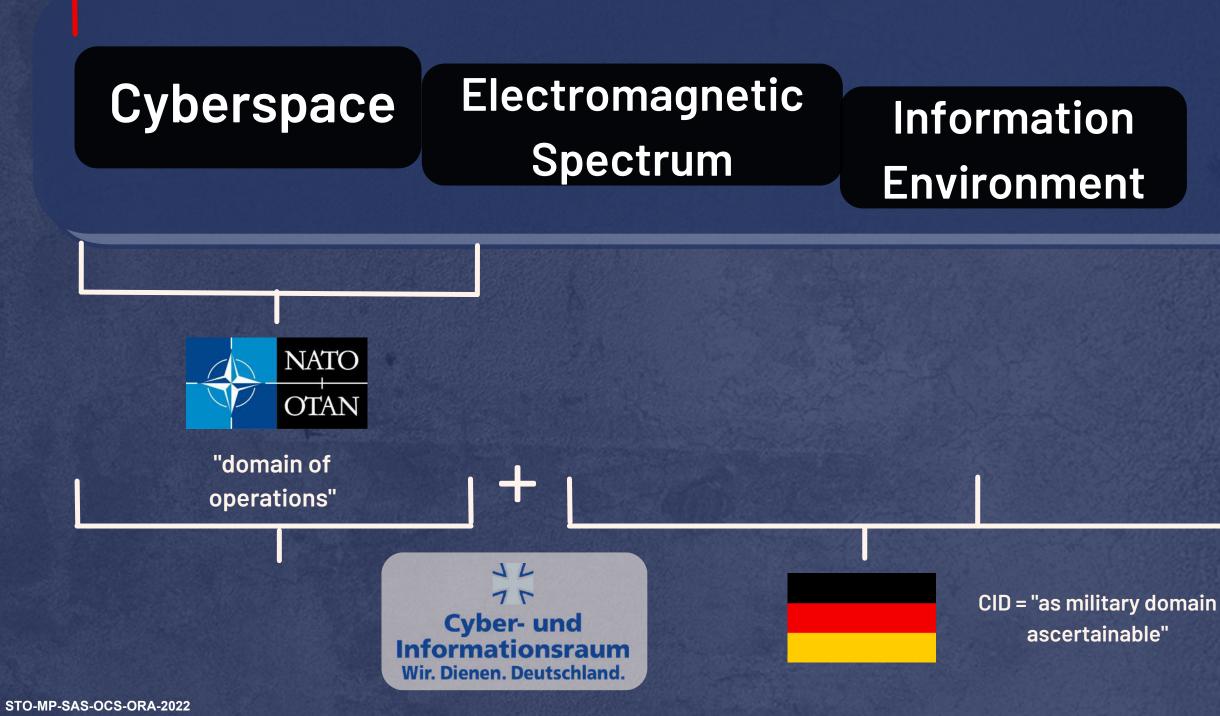
HYBRID THREAT RISING TABLETOP WARGAME CASE STUDY

E. Ada SAYIN - University of Strasbourg Altan ÖZKİL, PhD - Atılım University L. Berke ÇAPLI, MSc - University of Edinburgh

"THE" 5TH DOMAIN?



"informasionnoye prostranstvo" "Strategic domain" "not limited to wartime"

Information Space

HYBRID THREATS

Hybrid Threats, or 4th Generation Warfare, uses the full spectrum of civilian, military, intelligence, cognitive and technological tools. It is a concept that targets not only military elements, but also civilian elements, including the support and trust of both internal and external public.

This threat aims to create an "ambiguous situation" in which the knowledge that war is taking place, the parties and the causes of the war are uncertain.

SAS-129 GAME DEVELOPMENT METHOD

		Inception		Elaboration		Construction			Transition
		1	2	3	4	5	6	7	8
nalysis	Need for Training Analysis								
	Training Needs Analysis								
Requirements & Analysis	Operational Requirements Analysis								
equirem	Limitations and Assumptions								
R	Maintenance and Support Concepts Determined								
	Detailed System Review								
Design	Functional Requirements								
Des	Functional Requirements prioritized and planed								
nentation	Agile development								
Implementa	Test								

• SAS-129 Final Outputs:

- Is it an accurate training and accurate training methode?
- By considering the needs of future officers; gathering the most common problems and lessons in one resource for the game developers,
- Preparation of methodology and serious game guide to guide practitioners and trainers.
 Demonstrating the guideline and applying the methodology through prototypes.
 - "General" game for 2-3 hours: Risking, brain storming and developing an argument.
 - A "Game" with high graphic value or tabletop
 - A war game supported with a classic software

THE HYBRID THREAT RISING GAME

The Women in Command: Hybrid Threat Rising game creates an armed conflict scenario in a realistic way with real-life events and consequences to be played through a 3h period. It is designed both for beginners and wargamers with experience.

The game demonstrates various aspects of hybrid war such as;

- ISR
- Multi-Domain Operations
- Cyber Attacks
- Media Influence,
- International Organizations
- Kinetic war, etc.











HOW DID WE DO IT?



Research and Analysis



Game development for 3 months



Digitalizing



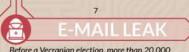
Annexes: auxiliary elements, instruction annexe and story booklet.





Regularly Testing and Reformation of the Game: Playtest

CYBER ATTACK SCENARIOS



Before a vectanian election, more than 20,000 emails belonging to the campaign of a popular anti-Astraidor (Vecranian) politician were dumped on a file-sharing website. Word of the leak spread through the Internet, facilitated by bots and spam accounts.

7-8: Low effect: Vecranian Player loses 2 influence on any battleground region.
8-10: Mid effect: Vecranian Player loses 3 influence on any nonbattleground region. (Astraidor chooses)
11-12: High effect: Decrease the total

war meter by 1





Vecranian Cyber Forces receive reliable intel from an Ally Country that Astraidor hacker group STRADIOR is planning a huge cyber attack. As a consequence, with help from their allies, massive precautions are taken.

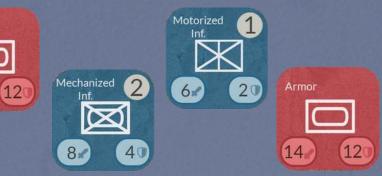
No cyber roll for that turn. This card must be revealed immediately. If not revealed : -5VP for the player.



The Cyber Attack Senarios of NATO gathered from Cyber Security Excellence Center International Lock Shields Cyber Exercise.



Armor





The Army Lineup and ORBAT which is modelled from Institute for the Study of War Reseources.

SIMULATION TABLES

Combat Dice Roll Results Table (✔: ())

Die Roll	1:5	1:4	1:3	1:2	1:1	3:2	2:1	3:1	4:1	5:1	6:1
2	-3	-3	-2	-1	-1	R	R	R	r	r	r
3	-2	-2	-1	Local St. 4	NA.	14 - V			1.0		1
4	-1	-1	-			-		1	1700	1	2
5	-1		-	1.			-	1	1	1	2
6	No.	-	-	-	-	-	+ /	1	1	2	3
7				-		Ser.	1	1	2	2	3
8	*		*		1	1	1	2	2	2	4
9	· · · · · · · · · · · · · · · · · · ·	-		1	1	2	2	2	3	3	4
10	-	-		1	1	2	2	2	3	3	5
11		1	1	2	2	2	3	3	4	4	5
12	1. 1 m	1	1	2	2	3	3	3	4	4	5

OFFICIAL

STRIKE! Battlegroup Tactical Wargame Rules

Young, MJ, Hood, A DSTL/TR108770.4.7 21 May 2018

OFFICIAL

Delence and Security Analysis Portsdown West Portsdown Hill Road Fareham PO17 6AD B cover Concept 2011

[dstl]

War Simulation Graphics made by over modelling of the game named Strike! created by DSTL and Ministry of Defense of England

EVENT SCENARIOS

 NATO UNCLASSIFIED RELEASABLE TO FIN, SWE AND UKR

 NORTH ATLANTIC TREATY ORGANIZATION
 SCIENCE AND TECHNIOLOGY ORGANIZATION

 Image: Constraint of the state
> This Report documents the findings of the collaborative NATO-Ukraine SAS-121 Research Specialist Team on Hybrid Wartare.

Etude de cas de l'Ukraine)

This document should be announced and supplied only to NATO, Government Agencias of NATO Asterns and their bera filde contractors, and to other recipients approved by the STO National Coordinators. Ce document ne dok fere notifié et distribué qu'à fOTAN, qu'aux instances gouremementales des pays membres de TOTAN, ainsi qu'à feure sontracteris diment habités et qu'autes demandeurs agrée par les Coordonnietures Nationeurs de ISTO.

Published February 2018

Official NATO UNCLASSIFIED No Public Information RELEASABLE TO FIN, SWE AND UKR Release



Research Specialist Team on Hybrid Warfare of NATO STO : The Event Scenarios Modelled from Ukranian Case Study Reports

STRATCOM SCENARIOS





The Strategic Communication (STRATCOM) Scenarios adapted from NATO Strategic Communication Center of Excellence Database

HYBRID WAR MODEL

NATO UNCLASSIFIED RELEASABLE TO AUS, FIN AND SWE

NORTH ATLANTIC TREATY



AC/323(SAS-127)TP/792

STO TECHNICAL REPORT

TR-SAS-127

No Public Release

Se

www.plp.neto,int

SCIENCE AND TECHNOLOGY ORGANIZATION

Hybrid Warfare: Implications for NATO

(La guerre hybride : Implications pour l'OTAN)

This Report documents the findings of the SAS-127 Research Specialist Team on Hybrid Warlare.

This document should be announced and supplied only to NATO. Government Agencies of NATO Nations and their bons fice contractors, and to other receivents approved by the STO National Coordinators.

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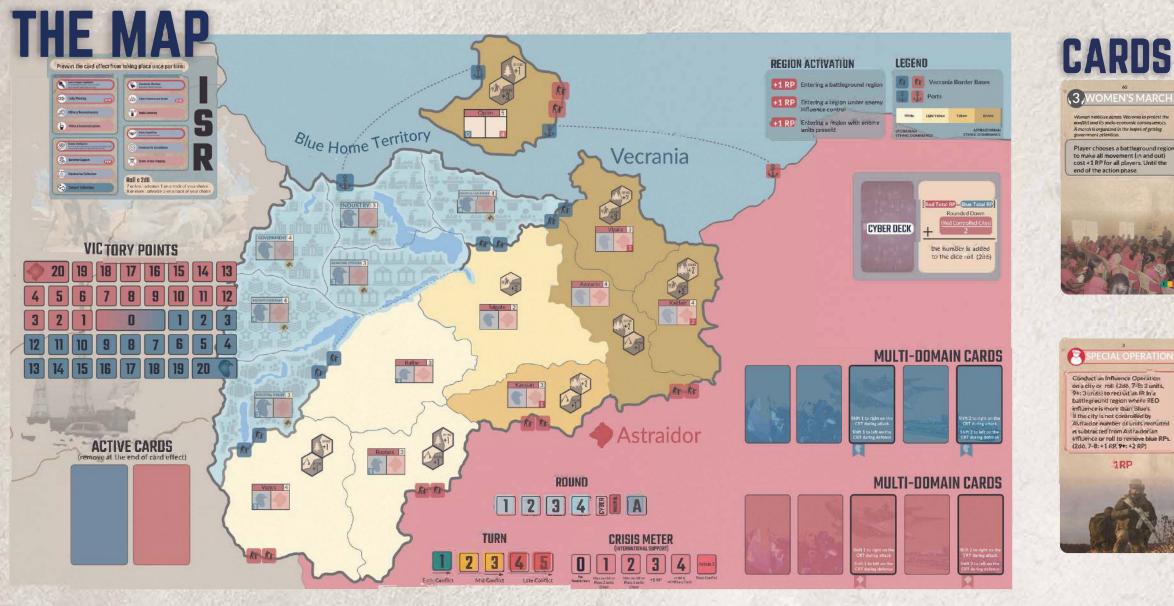


Published May 2018

Official Information NATO UNCLASSIFIED RELEASABLE TO AUS, FIN AND SWE



Hybrid Warfare of NATO STO: The General Game Scenarios modelled from SAS-127 Report named Implications for NATO



TOKENS



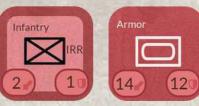








INFLUENCE AND CONTROL TOKENS





RESOURCE POINTS



TRACKERS STO-MP-SAS-OCS-ORA-2022

PLAYER AIDS

CITY COMBAT PLAYER AID

ASTRAIDOR PLAYER AID and the sure of the anality Were to other start 1 1a th 10 94 31 41 51 REC Hi Ma 1.1.1.1.1. Attack = D. Cara and

* l'ores attachi

TUTORIAL



RULEBOOK



Conduct an Influence Operation on

1RP





TARY EXER

Put 2 units of your choosing on a

1RP

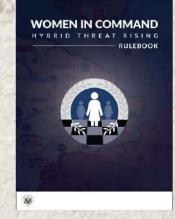
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CYBER ATTACK CARDS



MULTI-DOMAIN CARDS



ROAD TO CRISIS WOMEN IN COMMAND: Hybrid Threat Rising ROAD TO CRISIS KOZ BOSINA

MILITARY DECK

4

MATRIX GAME





Action: ... Result/Desired Effect:

Pros (arguged by the card owner): A Number of Reasons Why It Might Happen.

Cons (arguged by the other player): A Number of Reasons Why it Might NOT Happen.



Action: **Result/Desired Effect:**.

Pros (arguged by the card owner): A Number of Reasons Why It Might Happen.

Cons (arguged by the other player): ... A Number of Reasons Why it Might NOT Happen.

ADDITIONS TO THE GAME

THE MEGA GAME



With the Mega version the players get to practice different concepts such as:

- military reporting
- order&command structure.

THE MATRIX GAME

Result/Desired Effect: Pros (arguged by the carc owner):

> ons (arguged by the ther player): Number of Reasons Why

Pros (arguged by the card owner): A Number of Reasons Why it Might Happen. Cons (arguged by the



and Constant of the Constant and Fight Mobility of the North Constant from the Mobility of the North Constant for the North Constant

Matrix Game was developed to ensure the developed game can be adapted to future scenarios.

Event cards which included scenario narratives and effects were changed with the Matrix Game argument cards

The exercise showed that the current game can be successfully used as a Matrix Game as well as a critical analysis tool.

THE	E TUTOF	RIAL GA	ME
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The Tutorial is to be played at the beginning to help players get initiated step by step. It lets players go through every aspect and learn through their own decision-making.



LEADING UP TO THE GAME



NATO ACT Urbanization Project, UK Defence Academy



Ankara Informatics Congress



German Command and Staff College



Turkish General Staff Partnership for Peace Training Center



Land Warfare Center, Netherlands



Turkish General Staff Partnership for Peace Training Center



Strategic Reconnaissance **Command, Germany**

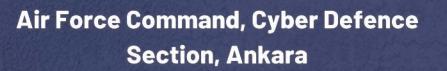
Cyber Wargame R&D Workshop, **German Command and Staff College**

VALIDATION OF THE GAME



NATO ORA Conference, Wargame Workshop, Canada







Land Force Command, TRADOC, Ankara



Cyber Command of Netherlands



+90 3rd and 4th year cadets Land Warfare Academy of Netherlands



Connections UK Wargaming Conference





Todd

Peter Williams

ConnectionsOz Wargaming Conference

VALIDATION PROCESS

U.S. Embassy Ankara hosts:

"Women in IT"

celebrating Cybersecurity Awareness Month

JOIN US AS U.S. EMBASSY OFFICIALS SHARE THEIR EXPERIENCES AND INSIGHTS ON WOMEN'S INCLUSION IN THE TECH SECTOR

SPEAKERS: LAURA LEINOW, INFORMATION MANAGEMENT OFFICER MARIA BLEES, ECONOMIC OFFICER

Women in IT Webinar by the US Embassy Ankara





Hybrid Threats and National Defense Symposium of Turkish Land Warfare Academy

UK Fight Club's - Women's Day Webinar on Successful Game Design as panel speaker.







Georgetown University Wargaming Society **Central Michigan University**

UK Civil Service



NATO STO's Tide Sprint Spring Conference in Sopot, Poland as game presenter



DSTL, UK

THE PROJECT IN NUMBERS IN ONE YEAR,







73% of players found the game fun.



81% of players said they would play the game again.

When the players were asked to rate the game, EASE OF LEARNING - 8/10 GRAPHICS - 9/10



500+ playtests



92% of players found the game educational.

MECHANICS - 9/10

AWARDS



SIM

ILATION

TRAINING

FINALIST

International Serious Play Awards Gold Medal Winner of 2022

20

AWAR

INTERNATIONAL

Gold Medal

Winner

22

S

D

WHAT'S NEXT?

SAS-172 RESEARCH TASK GROUP: MULTI-DOMAIN WARFARE

Produce a working wargame and development toolkit for Multi-Domain Operations.

The wargame will help to determine the capabilities needed to achieve the goals of three likely missions in 2035:

- response to mass migration,
- natural disaster,
- inner-city turmoil.

Developing the wargame from prototype level to a product level and conduct workshops in key organizations to help disseminate the wargame.

WOMEN IN COMMAND: HUMANITY IN CRISIS

As an addition to the Women in Command: Hybrid Threat Rising game, we are developing an humanitarian expansion which can be applied to any and every wargame. It is to be applied to every levels, from tactical to strategic.

The expansion aims to:

• simulate NGO interventions in armed conflicts, • depict and internally displaced person's struggles • Incite the usual RED and BLUE players to consider humanitarian consequences at all times.

HOW CAN YOU HELP? We need to playtest.

Help by connecting us with locations and institutions for playtests & demonstrations.

Reach us at:

ada@kizbasina.com KIZ B**\$**SINA

berke@314radius.com









altan.ozkil@atilim.edu.tr



WE ARE LOOKING FOR SIGNALS OF INTEREST for our new Research Task Group: SAS-ET-FH (ET) - Inclusion of Generation Z+ to Defence Organizations aims to work on new methods to make defense and military career appeal to Gen Z+.

Reach us at:

ada@kizbasina.com KIZ BASI

berke@314radius.com





altan.ozkil@atilim.edu.tr



THANK YOU FOR LISTENING.