MORE THAN WORDPLAY: HUMAN GEOGRAPHY AND HUMAN INTELLIGENCE

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Abstract

This article delves into the critical role of geography in military operations and intelligence, examining the significance of geographical features in military strategies and engagements. The focus is directed towards human geography and its intricate connection with intelligence operations. Population demographics, cultural diversity, and societal dynamics play a pivotal role in shaping intelligence collection and analysis.

The final part of the paper takes a forward-looking perspective, exploring the evolving landscape of Human Intelligence (HUMINT) within the anthroposphere of the future. It delves into how intelligence agencies adapt to an ever-changing world, where geography remains a constant but is coupled with digital advancements, global connectivity, and emerging threats.

Key words: Human Geography, Intelligence, HUMINT, society, culture.

INTRODUCTION
I. THE IMPORTANCE OF GEOGRAPHY IN THE MILITARY

Geography plays a crucial role in military operations, with a significant impact on how militaries plan, prepare, execute, and adapt their campaigns. It shapes the battlefield, impacts logistics, and influences the overall strategy.

The physical features of the land, such as mountains, valleys, rivers, forests, deserts, and coastlines, greatly influence military actions. Terrain can provide natural barriers or obstacles[1] and defensive positions, or create challenges

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[1] Certain geographic features, such as narrow straits or mountain passes, can be strategically important chokepoints. Control over these chokepoints can exert influence over trade routes, maritime traffic, and regional stability.

for troop movement, facilitating or impeding maneuvers. Based on the distance and proximity of its features, the terrain conditions the distance between military assets, bases[2], and military engagement areas, affecting the speed of deployment and logistics. Proximity to potential adversaries can influence readiness and response times. Geopolitical considerations, such as the proximity of friendly or hostile nations, also play a role in military planning.

Further, climate conditions can have a profound effect on military operations. Extreme temperatures, precipitation, fog, and other weather-related factors can impact visibility, mobility, and the performance of equipment. Military planners must consider seasonal variations and weather patterns in their strategies.

The network of communication is essential for combat support and services support. The availability of roads, railways, ports, and airports influences the movement of troops and supplies. Inaccessible or hostile terrain can disrupt supply lines and make operations more challenging. In many circumstances, accurate maps and navigation tools are essential for operations. Geographical information systems (GIS) and satellite imagery help military planners and commanders make informed decisions.

Understanding the natural features of the terrain is crucial for camouflage and concealment tactics. Military units can use the terrain to hide and minimize their visibility to the enemy, even though the extensive use of drones equipped with various sensors requires a more sophisticated mix of passive and active cover and concealment measures.

Ultimately, understanding the cultural and human geography of a region is important for military operations, particularly in counterinsurgency and stability operations, but also in the light of hybrid warfare. Factors like population density, ethnic composition, religious distribution, history, local customs, mass-media coverage, social media preferences, and political affinities can impact strategy.

As we have shown, all the geographical features matter in a military campaign. The focus on various factors is determined by the level of reference[3] *(Mattelaer, 2018, pp. 339-356)*, the military objectives, and their impact on the military decision-making process. Even more, in a comprehensive approach scenario, military and civilian planners may approach differently the importance of geography to their objectives *(Shetler-Jones, 2016)* even though seeking a common end state in a designated area of responsibility; anyway, this is an

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[2] Bases may be situated in strategic locations to project power, defend against potential threats, or support operations in specific regions.

[3] As an example, throughout history, the relevance of geography in NATO defense planning registered a pendulum movement, from treating geography as the central organizing principle within the Alliance to downplaying its role in favor of functional considerations, as Mattelaer demonstrates (Alexander Mattelaer, *Rediscovering geography in NATO defense planning*, in Defence Studies, issue no. 3, pp. 339-356, 2018)

opportunity for best practices sharing and learning, with tangible benefits for both parties.

Eikmeier and Iova advocate NATO's approach to factor analysis [4] (*Eikmeier, Iova, 2021, pp. 65-72)* , outlining an effective design for analyzing the "*what*" (statement with operational implications), in order to conclude with a "*therefore*" (figure 1) – achieving understanding and promoting a follow-up action associated with intended effects.

Factor	Deduction	Conclusion
The "what"	The "so what"	The "therefore"
A significant statement (factual or assumed to be true) that has operational implications.	The implications, issues, or considerations, derived from factors that have operational significance.	The outcome or result reached that requires action in planning or further analysis.
What is the current state of affairs or trends?	*So what are the significances of the factor?*	*So what can or should be done?*

Figure 1 The "What," "So What," and "Therefore" (Joint Operation Planning Group Handbook, 2019, apud Eikmeier and Iova)

Understanding is defined as *the perception and interpretation of a particular situation to provide the context, insight, and foresight required for effective decision-making*[5]*;* in the military context, this is based on knowledge, where Intelligence has a significant stake. Commanders must articulate coherent intelligence requirements to develop understanding, but the evolving nature of the assessed factors makes understanding perishable[6]. The continuous analytical cycle builds on clarifying intelligence leads in the whole spectrum of interest and updates the common operational picture, a real-time situational awareness.

As aspects related to the human security of the population and local communities gained weight in assessing the outcome of an operation (*Kis, 2022, pp. 56-65),* pointing out the populace either as a disruptor of the military action (through opposition, actions to protect communities, etc.) or a facilitator (friendly atmospherics, support provided, etc.), civil considerations are paramount in any planning activity, alongside the physical terrain. If, at the tactical level, the METT-TC analytical model (figure 2) is the most relevant, the civil

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[4] https://www.armyupress.army.mil/Portals/7/military-review/Archives/English/SO-21/eikmeier-factor-analysis/eikmeier.pdf

[5] Concise Oxford English Dictionary, 12th edition, 2011

[6] UK MOD Development, Concepts and Doctrine Centre, Joint Doctrine Publication 04, *Understanding and Decision-making*, second edition, December 2016, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/584177/doctrine_uk_understanding_jdp_04.pdf, p. 11

considerations analysis becomes more scientifically oriented at the operational level, where another model has prevalence – the ASCOPE[7]-PMESII(PT)[8] matrix.
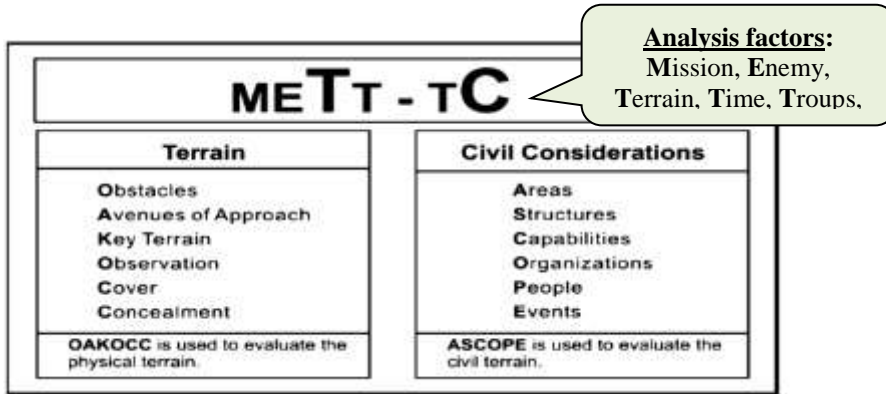

Figure 2 Analysis factors: physical terrain vs. civil considerations (human terrain)
(apud FM 3-05.40 (FM 41-10) 2006, fig. 1-3, 1-4)

Civil considerations through the ASCOPE lenses consist of a series of queries on the PMESII(PT) operational variables, identifying the key factors („*What are the factors in the Civil Environment that will significantly affect friendly forces - positively and negatively?*") and their relevance („*How will each factor affect the friendly forces?*")[9]. A human geography approach may offer effective answers to these questions.

2. HUMAN GEOGRAPHY AND INTELLIGENCE

NATO understands the intrinsic relation between territorial systems and communities and analyzes human geography features that may become a threat to the Alliance's values and *modus operandi,* at various levels. Technically, human geography encompasses a series of categories that contribute to shaping a complex landscape of a reference area: cultural geography, development geography, economic geography, geography of health, history geography, geopolitics and political geography, religion geography, social geography, transportation geography, tourism geography, urban geography, and contributes to other connected reference systems, like human security geography (Kis, 2012).

Huggett and collaborators *(Huggett, Lindley, Gavin, Richardson, 2004)* show that physical geography, from the human perspective, is focused on three main areas: *the natural sphere* (the ecosphere unaffected by human activities), with its biological and physical structures and processes; *the mental sphere*

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[7] area, structure, capabilities, organization, people, and events
[8] political, military, economic, social, infrastructure, and information (physical terrain and time)
[9] https://www.trngcmd.marines.mil/Portals/207/Docs/wtbn/MCCMOS/Planning Templates Oct 2017.pdf?ver=2017-10-19-131249-187

(noosphere); and the *anthroposphere* (the ecosphere influenced by humans), as a product of the first two categories. Based on this taxonomy, human geography operates several fundamental concepts: space, region, regionalization, place, location, territory, territoriality, and nation *(Neguț, 2011)* that support mapping cultures, behaviors, and interactions with the environment, and ultimately identifying ASCOPE/ PMESII dynamics (elements of socio-cultural design) in a given area. The anthroposphere mediates the interrelations between individual actions and evolving ASCOPE/ PMESII patterns and arrangements, but also how spatial configurations are themselves constructed through such processes.
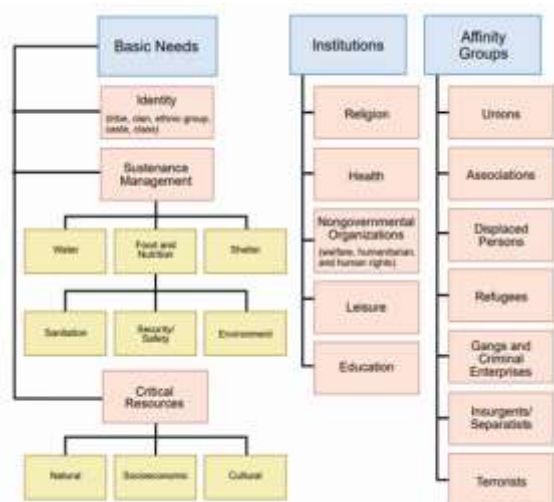

Figure 3 Social subsystems (J.P. 2-01.3, p. D-13)

In this spectrum, a selection of key elements will be represented in the joint intelligence preparation of the operational environment (JIPOE [10]) as features of the physical terrain, but several research areas and topics will shape key aspects of the civil considerations. Joint Publications 2-01.3 provides, in Appendix B, Section D, a comprehensive model detailing PMESII subsystems; the social subsystem (figure 3) is illustrative of the complexity and dimension of the Intelligence support provided to the operational planning. This is just a cluster of problems from the **spatial organization of human activities** and the relationships between people and their environment, designed under the aegis of human geography. Imagery (especially in a GIS layered representation of various overlays that reconstruct the key aspects for analysis – figure 4) critically supports a clear geo-visualization of the operational environment. A digital representation of JIPOE is of great support for planners, who can make customized selections of the overlays to detect/ depict specific situations and develop analytic tools and various models of the so-called "*human terrain*". Simulations of the models, based on the incorporation of the human dimension (social & behavioral sciences) into security analysis, operations, and

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[10] JIPOE process provides a disciplined methodology for analyzing the operational environment and assessing the impact of that environment on the adversary and friendly courses of action. (Joint Publications 2-01.3, *Joint Intelligence Preparation of the Operational Environment*, 21 May 2014, https://irp.fas.org/doddir/dod/jp2-01-3.pdf, Appendix E)

policy development, serve to improve the identification and analysis of threats and to enhance societal resilience *(Rausch, 2011, slide 6 .)*

In this respect, human geography capitalizes on studying **population geography**, by investigating the spatial distribution, composition, and dynamics of human populations. It examines factors such as migration, fertility rates, mortality rates, population growth, and demographic transitions. Research areas within population geography can include migration patterns (to include economic migrations or war refugees' flows), population aging, urbanization effects on population distribution, and spatial patterns of health and disease.
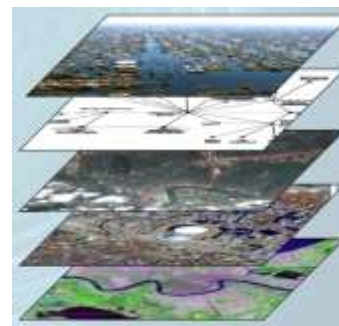

Figure 4 Representation of JIPOE overlays

Further, the study of poorly inhabited areas vs. urban agglomerations (**urbanization** planning and development, the spatial organization of urban areas, urban governance and social inequalities, the impact of urbanization on the environment, etc.) corroborated with **economic geography** (that explores the spatial distribution of economic activities, such as industries, trade, and globalization, and examines the relationships between economic processes, resources, markets, and the location of economic activities) delivers a powerful insight to the regional development, industrial clusters, mobility infrastructure, supply chains, innovation, etc. **Political geography** analyzes the spatial organization of political systems, power relations, and the impact of politics on the distribution of resources and decision-making processes. Research areas within political geography can include geopolitics, territorial conflicts, political boundaries, electoral geography, power brokers, and the geography of governance (including aspects related to integrity vs. corruption).

In human geography, the analysis of the **cultural dimensions** in a territorial system examines the relationship between culture and space. It investigates how culture shapes the landscapes, identities, and behaviors of individuals and groups. Research topics in cultural geography may include the study of cultural landscapes, cultural diversity, cultural heritage and values, place attachment, the view and stereotypes related to other cultures, sentiment analysis, the spatial dimensions of cultural practices, etc.

Not the last, **environmental geography** studies the interactions between humans and the natural environment. It examines issues such as climate change, natural resource management, environmental degradation, and the impacts of human activities on ecosystems. Research topics in environmental geography may include environmental conservation, sustainable development, the spatial analysis of environmental risks, the effects of natural disasters on populations, etc.

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Some tangible (and distinct) examples of NATO's approach to human geography are illustrated by research programs like the urbanization project[11], the concerns regarding the environment and climate change[12], military mobility and transportation[13] (in the context of collective defense on the Eastern flank), human security (from a cross-cutting perspective)[14], the interest in lessons learned in cultural awareness[15], etc.

All these examples carry the imprint of Intelligence collection (all sensors, including HUMINT) and analysis at different levels; the variables raise questions about the nature and significance of particular political and territorial structures, the role of boundaries, the character of flows between places of influence and control, and the role of the physical environment in shaping conflict and cooperation, or the dynamics of the conflict (including the degree of legitimacy accorded to particular territorial arrangements by different populations, how economic and social arrangements are at odds with dominant territorial structures, the implications of territorial arrangements for intergroup relations and understandings, the effects of regional inequalities on political and social stability[16], or the attitude towards the NATO presence on the host nation's territory *(Simion, Surdu -coordinators, 2014)*.

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[11] NATO's Strategic Foresight Analysis identified urbanization as a key security trend of potentially significantly impacts the way the Alliance is operating; as a result, based on the NATO Military Committee task to the two Strategic Commands, a series of workshops and wargames have been dedicated to developing a conceptual study on urbanization, concluding with the issue in 2018 of the overarching Bi-Strategic Command Joint Military Operations in an Urban Environment Capstone Concept (covering all domains and NATO's core tasks). (https://www.act.nato.int/activities/nato-urbanisation-project/) Intelligence has its stake in the urban operational environment, recording both opportunities and challenges and driving its transformation to meet the uncertainties of the future.

[12] NATO's interest in the environmental security issues that can lead to humanitarian disasters, regional tensions, and violence has already a history (see NATO's disaster response operations) and culminated with highlighting this challenge (and the need to understand and adapt to it) in the 2022 NATO Strategic Concept, followed by the establishment of the NATO Centre of Excellence for Climate Change and Security in Montreal, Canada. (https://www.nato.int/cps/en/natohq/topics_91048.htm)

[13] https://www.act.nato.int/article/nato-innovation-challenge-military-mobility-transportation/

[14] Alexandru Kis, *Human Security – a cross-cutting topic in military operations. A study case for HUMINT in NATO*, under evaluation for participation in the international conference "*Human Security. Theoretical approaches and practical applications*", organized by "Lucian Blaga" University, Sibiu, 27 October 2023

[15] https://www.nato.int/cps/en/natolive/news_105304.htm

[16] National Research Council, *Rediscovering Geography: New Relevance for Science and Society*, Washington, DC, The National Academies Press, https://doi.org/10.17226/4913., 1997, pp. 19-20

3. HUMAN INTELLIGENCE (HUMINT) IN THE ANTHROPOSPHERE OF THE FUTURE

The anthroposphere of the future is a concept that envisions the human-influenced or human-shaped part of the Earth's environment in the years and decades to come. It encompasses various aspects of human activity, development, and interaction with the natural world. While it's challenging to predict the future with absolute certainty, we can speculate on some potential characteristics of the anthroposphere in the future based on current societal trends and emerging technologies.

We will also try to anticipate the way these changes will affect the current HUMINT tradecraft, raising challenges and driving the prospective transformation of this single-source collection capability. Please note the strong interconnection between the presented features, which influence and depend on each other.

3.1. Urbanization and Megacities: The future anthroposphere is likely to be increasingly urbanized, with more people living in large cities and megacities. Urban areas may continue to expand, placing pressure on land use, infrastructure, and resources.

With a diversity of sizes, shapes, demographic settings, and development, the cities of the future are foreseen as representing a huge challenge for the way NATO operates. In the Intelligence area, as technical sensors can be obstructed in densely built-up areas, HUMINT remains a valuable asset through its ability to access information in the military „no-go" areas. Anyway, future urbanization brings additional challenges to HUMINT operators in the field, especially related to operational security: freedom of movement, surveillance, personal identification, etc.

3.2. Technological Advancements: Rapid advancements in technology will shape the anthroposphere. This could include the proliferation of smart cities, the widespread adoption of automation and artificial intelligence, and the integration of digital technologies into everyday life. The anthroposphere will be characterized by **digital connectivity**, with the proliferation of the Internet of Things, 5G networks, and high-speed internet access in even remote areas. This will impact communication, commerce, and information exchange, but not only.

NATO addresses emerging and disruptive technologies (EDTs) through responsible, innovative, and agile policies developed in cooperation with relevant partners in academia and the private sector, intending to maintain its technological edge and military superiority, helping deter aggression and defend Allied countries.[17]

In the HUMINT methodology, secured presence and active collection in social media becomes a necessary feature, requiring upskilling of the HUMINT

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[17] https://www.nato.int/cps/en/natohq/topics_184303.htm

experts and specialization of the organization, with a strong cybersecurity policy. Chatbots will be largely used to collect data, and smart applications will transform the loyal population into the largest human sensor possible.

Additionally, smart devices and wearable sensors will enable concealed capture of audio and video, and live streaming from the field; at the same time, the myriad of gadgets readily available on the market will represent a consistent operational security risk.

Persistent surveillance (upgraded with biometrical recognition systems) and the large availability of drones will affect mobility and concealment for both, operators in the field and human sources, presenting a serious security risk (this is an additional reason to opt for more digital presence and interaction).

3.3. Climate Change Mitigation: The anthroposphere of the future will likely be heavily influenced by efforts to mitigate and adapt to climate change. This may involve the widespread adoption of clean energy technologies, carbon capture and storage, and climate-resilient infrastructure. Connected to this, sustainable **Resource Management** is becoming increasingly critical. Innovations in agriculture, water management, and resource-efficient technologies are expected to play a crucial role in sustaining the anthroposphere.

NATO acknowledges a range of environmental challenges, with a particular focus on the threats stemming from climate change. Over the years, NATO has been actively addressing these challenges through its involvement in civil preparedness and emergency response efforts[18]. These endeavors encompass various issues, including but not limited to severe weather events, rising sea levels, flood risks, scarcity of, or exclusive access to natural resources, land and geological deterioration, pollution, or aspects of economic conflict as part of the hybrid warfare. These factors have the potential to escalate into humanitarian crises, regional conflicts, and acts of violence, where it is likely that military elements will be involved.

3.4. Sustainable Development: There is growing awareness of the need for sustainability in the anthroposphere. Future cities and infrastructure projects may prioritize eco-friendly design, renewable energy sources, efficient transportation, and reduced waste to mitigate environmental impact. Additionally, recognizing the importance of protecting ecosystems, there may be increased efforts to restore and rehabilitate damaged environments, such as reforestation, wetland restoration, and urban green spaces.

NATO also considers "green military operations"[19], with no sizeable effect on Intelligence collection and analysis.

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[18] https://www.nato.int/cps/en/natohq/topics_91048.htm
[19] https://www.climatechangenews.com/2021/06/15/nato-considers-net-zero-2050-target-move-green-military-operations/

3.5. Demographic Shifts: Changes in population demographics, including aging populations and changing birth rates, will have implications for healthcare, social services, the labor force, and urban planning.

Demography is a permanent concern for HUMINT. Population density, education, mobility, sentiment, employment, political affiliation, criminal activity, etc. are variables that may determine the strength of the HUMINT element in terrain, influence the types and frequency of HUMINT activities, and affect their effectiveness.

3.6. Cultural and Social Diversity: As global connectivity continues to grow, the anthroposphere will be characterized by cultural and social diversity. Multiculturalism, globalized trade, and increased mobility will shape the cultural landscape. It doesn't mean that cultural particularities will not be preserved to a certain extent, specific to determined territorial systems or specific to social groups segregated by race, ethnicity, or religion.

The need for cultural awareness/ sensitiveness will gradually evolve to answer identified needs in HUMINT, with an accent on mindfulness and empathy in engagement. The interaction between collectors and sources will be facilitated by real-time translation devices, diminishing the role of the interpreter and enhancing rapport building. Anyway, some cultural sensitivities will be largely preserved, based on location (distinct territorial systems) or communities' features related to ethnicity, race, religion, social customs, etc[20].

3.7. Cognitive confrontation: Cognitive warfare represents a modern form of conflict that extends beyond traditional kinetic battles. In cognitive warfare, the primary battleground is the human mind, where the objective is to manipulate, influence, or disrupt an adversary's perception, decision-making, and behavior. This warfare often leverages advanced technologies, including social media, disinformation campaigns, and cyberattacks, to spread propaganda, sow discord, and create confusion. Cognitive warfare recognizes the power of information and psychology, seeking to exploit vulnerabilities in an opponent's cognitive processes.

It poses unique challenges for governments and organizations in defending against these non-physical but highly impactful forms of aggression, requiring a comprehensive approach that combines cybersecurity, media literacy, and strategic communication strategies.

In HUMINT, a discipline where engagement with human sources is the key, we recognize the need to increase the cognitive competence of the collectors and analysts *(Kis,2023).*

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[20] NATO STANDARD Allied Joint Publication-10.1 *Allied Joint Doctrine for Information Operations*, Edition A Version 1 with UK national elements, January 2023, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1175076/20230724-AJP_10_1_Info_Ops_web.pdf, p. 40

3.8. Governance and Policy: The future anthroposphere will require innovative governance structures and policies to address complex challenges, such as cyber threats, data privacy, and the ethical use of emerging technologies.

HUMINT will also face legal and ethical dilemmas in capability development, especially in a multinational environment (like NATO), where harmonization of national reservations and caveats is a complex process.

It's important to note that the exact characteristics of the anthroposphere in the future will depend on a range of factors, including technological breakthroughs, policy decisions, societal choices, and responses to global challenges like climate change and resource scarcity. The path we take will determine whether the anthroposphere of the future is sustainable, equitable, and conducive to a new system of values and lifestyle.

HUMINT evolves at the pace of societal change, mirroring and adapting to the changes in interpersonal communication based on the lessons learned processes. Additionally, it foresees future challenges, develops models, and simulates various scenarios of the future operational environment, developing prospective tactics, techniques, and procedures.

CONCLUSION

Human geography is an essential domain of study in Human Intelligence. HUMINT experts deal with assigned areas of responsibility where they have to ensure access to relevant information in support of knowledge development and decision-making processes. The contribution to HUMINT estimates, JIPOE, and the overall operational planning is based on a comprehensive understanding of the area of interest. In this context, geo-visualization is a powerful tool in supporting the staff processes and provisions of mission planning and preparation.

Acquaintance of the intrinsic relation and interdependence between local populations and the terrain's features provides awareness of valuable indicators' dynamics. Furthermore, the consideration of communities' cultural traits is paramount in facilitating the interaction between the HUMINT collectors and the human sources. The approach, rapport building, effective communication, and empathy are always conditioned by cultural sensitiveness. Understanding different cultures, their values, beliefs, and social norms can enhance our cultural intelligence, which is the ability to interact and work effectively across cultures. Cultural intelligence is an important aspect of HUMINT as it enables individuals to navigate diverse social contexts and adapt to different cultural settings.

The anthroposphere of the future will bring certain evolutions in the developmental visions, political priorities, and lifestyle. The societal changes (including emerging technologies) will engage adaptation of HUMINT techniques, tactics, and procedures to the new realities.

BIBLIOGRAPHY

Official documents

1. Concise Oxford English Dictionary, 12th edition, 2011;
2. Headquarters, Department of the Army, *FM 3-05.40 (FM 41-10) Civil Affairs Operations*, September 2006;
3. Joint Publications 2-01.3, *Joint Intelligence Preparation of the Operational Environment*, 21 May 2014, https://irp.fas.org/doddir/dod/jp2-01-3.pdf;
4. National Research Council, *Rediscovering Geography: New Relevance for Science and Society*, Washington, DC, The National Academies Press, https://doi.org/10.17226/4913, 1997;
5. NATO STANDARD Allied Joint Publication-10.1 *Allied Joint Doctrine for Information Operations*, Edition A Version 1 with UK national elements, January 2023, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1175076/20230724-AJP_10_1_Info_Ops_web.pdf;
6. UK MOD Development, Concepts and Doctrine Centre, Joint Doctrine Publication 04, *Understanding and Decision-making*, second edition, December 2016, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/584177/doctrine_uk_understanding_jdp_04.pdf.

Research papers

1. Eikmeier, Dale C.; Iova, Titel. *Factor Analysis. A Valuable Technique in Support of Mission Analysis*, in Military Review, September-October 2021, https://www.armyupress.army.mil/Portals/7/military-review/Archives/English/SO-21/eikmeier-factor-analysis/eikmeier.pdf;
2. Huggett, Richard; Lindley, Sarah; Gavin, Helen; Richardson, Kate. *Physical geography – a Human Perspective*, Arnold-London, distrib. in the USA by Oxford University Press Inc., New York, 2004;
3. Kis, Alexandru, *Human Security (re)consideration by NATO*, în Studia Securitatis - Security Studies Magazine, no. 2/2022, volume XVI, ISSN 2821-5966;
4. Kis, Alexandru, *NATO și securitatea umană*, Editura Universității din Oradea, 2012;
5. Kis, Alexandru. *A projection of the cognitive warfare in Human Intelligence,* under publication in the proceedings of the international conference STRATEGIES XXI, National Defence University Carol I, 27-28 June 2023, Bucharest, https://www.strategii21.ro/index.php/en/conference-proceedings
6. Kis, Alexandru. *Human Security – a cross-cutting topic in military operations. A study case for HUMINT in NATO*, under evaluation for participation in the international conference "*Human Security. Theoretical approaches and practical applications*", organized by "Lucian Blaga" University, Sibiu, 27 October 2023;
7. Mattelaer, Alexander. *Rediscovering geography in NATO defence planning*, in Defence Studies, issue no. 3, 2018;
8. Neguț, Silviu. *Geografia umană*, Editura Academiei Române, București, 2011;

9. Rausch, Sharla. *Human Factors/ Behavioral Sciences Division: Research, Transition, Innovation*, Head Behavioral Sciences Division Science and Technology Directorate U.S., Department of Homeland Security, May 2009, https://info.publicintelligence.net/DHS-HumanFactors.pdf;

10. Shetler-Jones, Philip. *Civil-Military Planning*, in Lucius, G., Rietjens, S. (eds) *Effective Civil-Military Interaction in Peace Operations*, Springer, 2016, Cham. https://doi.org/10.1007/978-3-319-26806-4_7;

11. Simion, Eduard; Surdu, Răzvan (coordinators), *Human Aspects in NATO Military Operations*, NATO HUMINT Centre of Excellence, CNI Coresi SA, Oradea, 2014.

Websites

1. https://www.act.nato.int/activities/nato-urbanisation-project/

2. https://www.act.nato.int/article/nato-innovation-challenge-military-mobility-transportation/

3. https://www.climatechangenews.com/2021/06/15/nato-considers-net-zero-2050-target-move-green-military-operations/

4. https://www.nato.int/cps/en/natohq/topics_184303.htm

5. https://www.nato.int/cps/en/natohq/topics_91048.htm

6. https://www.nato.int/cps/en/natolive/news_105304.htm

7. https://www.trngcmd.marines.mil/Portals/207/Docs/wtbn/MCCMOS/Planning Templates Oct 2017.pdf?ver=2017-10-19-131249-187