

Panoply Journal

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Editor's Letter

Dear Reader,

Welcome to our third annual Panoply Journal, published here at the Center for International Relations and International Security (CIRIS). It is always an exciting time of the year when we compile and publish research by students and scholars from all over the world for you, our audience. We take pride in providing our readers with research on topics that may be overlooked by major media outlets or may be topics that deserve further in-depth research and context.

Economic, political, and security concerns are at the forefront in every corner of the world, sowing the underlying awareness of our uncertain future. While there is an acute awareness of ongoing regional conflicts and human rights protests that are destined to change the way we view some countries, fostering the freedom for researchers to publish their works in the field of international matters remains a steadfast mission for my team and I. This year I challenge you, the reader, to read the research before you, review the supporting references, and from that point, draw your own conclusions. The exercise of information literacy is rarely discussed or taught, which I personally encourage you to do in your everyday life.

With the suppression of expression of diverse viewpoints, I encourage you to do as my mentors have asked of me throughout the years – thoroughly read the research, ask those important questions, and build your own analysis.

I'd like to thank our CIRIS Leadership Team for working so hard this year and our founding members and Board of Directors for fostering a robust think tank in which everyone has the opportunity to explore their international subjects freely. While some of our staff, contributing scholars, and members experience the personal impact of military conflicts and humanitarian crises, we continue to support all avenues of insightful research. I hope this academic journal finds you in good spirits and promotes thought-invoking dialogue between yourself and the people you interact with.

As we move forward into 2023, let our hearts be filled with hope and exercise compassion toward those whom we interact with. Let us move forward in the spirit of optimism and hope.

Respectfully,

Dominique R. Batiste

Journal Director, Center for International Relations and International Security

<https://www.ciris.info>

dominique@ciris.info

Letter from the Board

The conflict between the West and Russia over Ukraine is not the only conflict that is taking place this year. It is however depicting a grim scenario, the possibility of a nuclear war between the West and Russia. The discussion between NATO member states and the 2% required budget reservation vanished overnight now that a war is unfolding in Ukraine that has the potential to spill over and drag NATO member states directly into the conflict. And rightfully so, albeit late. European NATO states have taken security for granted.

There are however other conflict areas that do not get the same amount of coverage, such as Burkina Faso, Afghanistan, Yemen, and Haiti. And geopolitically there are a plethora of developments taking place, and despite our progress technologically there is still a large gap between countries with regard to stability and security. This gap will not diminish and the year ahead will be a turbulent one.

Iran is also a country that is undergoing a lot of change as Iranian women fight for their rights. It shows a changing world in which individual rights should not be taken granted for. It is our sincere hope that people worldwide will be enabled to use their inalienable rights of freedom in the broadest sense.

We are grateful to our Journal Director, the team, and the authors of this year for their work and contributions. Our invitation is extended to all to keep contributing in the next edition of of journal.

The Board of Directors

Travis Hackney
Lindsay Ryan
Marleen Julien
Sergei Oudman



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The False Pretense of Financial Disclosure by a Judiciary

If financial disclosure does not provide transparency, then what is the purpose?

Introduction

The conduct of judges in the State of Illinois is governed by the Illinois Supreme Court Code of Judicial Conduct, for which there is established case history at the circuit, appellate, and supreme court levels within the state judiciary. Both Judges and Lawyers are licensed through the IL State Bar Association. The governing bodies that manage their discipline are the Judicial Inquiry Board and the Attorney Registration and Disciplinary Commission, respectively. Lawyers and Judges are given unique identifiers in the form of Lawyer ID numbers and Judge ID numbers. Judges must disclose financial records periodically, and the information they have to disclose changes as a matter of law periodically. Records have been requested and paid for as a charitable donation to CIRIS, and the Clerk of the Supreme Court of the State of Illinois has indicated shipment of the records via email with a confirmation number, and those records have been received and analyzed. The judges' service periods and professional backgrounds are available and verifiable via the internet, including photographs.

As it relates to the public records, rulings, and eDockets, as well as the associated forms and filings, all of which are maintained by municipal, county, district, and state records, as well as within third-party filing systems (TylerHost) all of these systems have been designed to function in an operational environment constrained by the challenges of various logistical challenges, most especially a biological agent. Commercial data providers (TrellisLaw, Ballotpedia, LexisNexis) have monetized public records, and the Clerks/Law libraries at the associated jurisdictional levels are resources for study as well.

Research Design

A mixed-methods approach would serve the data most effectively: assuming there is salary and net-worth data that can be plotted against each other over time, thus turning data points into a spectrum that can be analyzed for normal distribution as it relates to statistical analysis. Qualitatively, tying outcomes to case history to create another spectrum of data points, so that spectrum can also be analyzed for normal statistical distribution would yield an outcome spectrum that may lack data in one or more possible outcome areas. This abnormal statistical outcome would not necessarily indicate systemic bias, it may be process-driven due to gaps created by operationalizing intentionally faulty policy.

Salary vs. Net Worth (public service and fixed income)

What do the financials actually disclose and is it useable? How have the statutory requirements changed over time for financial disclosure and for what purpose? Is there a judge/lawyer interplay? What does the public record actually show? What are the different methods for accessing public records? How is the legislature involved in creating the rules that govern judiciary behavior, including discipline? What data is available and how can the data be used?

Ethical Considerations

Since the data was collected in the past, participant knowledge of our survey of court records, outcomes, and judge/lawyer relationships is of no concern; however, a statistical anomaly could present as the judges are aware of the request for their records, but this is confidential: meaning, they cannot disclose it without our permission, but we can disclose it at

will. There is a very high likelihood that they have already privately discussed the request for their records amongst themselves. Understanding the legal nuances of the public service component of the legal definitions of terms like ‘bias’ and ‘prejudice’ from a legal versus ethical standpoint requires the differentiation and comprehension of how bias and prejudice present and are operationalized by a judiciary: bias is passive, prejudice is active, for example. Also, there is a certain degree of legislative collaboration as the judiciary is part of the constituency, and within the creation of Illinois State Law, The People of the State of Illinois have just as much of a right to documented involvement as the judiciary, if not more. This policy analysis component of the peer-reviewed research should be included in a section addressing the definitions necessary for our educated peers to be able to form their own opinions about our conclusions and recommendations.

Political Considerations

The specific political affiliations of the Judges as they are elected public servants are not necessarily the issue. Political orientations are regionally contextualized within various communities, so the point is not of *what* orientation they are, but rather *how* do they use their political orientation, whatever that may be? If it is determined that through their political affiliations, they are somehow betraying the public trust, then that becomes one of the points of the discussion within this research framework. The whole point of the research is to design a good, portable research methodology as an analytical tool to examine and classify public service outcomes. The law as it relates to the legal definition is lacking, is this on purpose? If it would be political/career suicide for a judge/lawyer to oppose an agenda-driven political status quo within state court operational outcome possibilities, and there is statistical existence of a blacklist for lawyers that use such tactics, then it can be reasonably inferred that rulings, then, are not necessarily based on the facts of those respective cases nor the objective and judicially prudent consideration of those facts: the outcomes could be statistically proven to be based on some other type of incentive than an objective search for the truth, the whole truth, and nothing but the truth on the part of the judiciary.

What other incentives could there be for public servants sworn to uphold the truth who live on fixed-income salaries and benefits to include retirement and health insurance? What are the changes in financial disclosure requirements over time? How does the timing of those changes affect individual financial records over time contemporaneous to the changes in the political climate? What political incentives could there be for judges as elected public servants as they progress in their political careers to other political appointments? Is there a statistical presence of political theater, pretext, or pretense, like when the TSA selects an old lady for ‘random additional screening’ because they know they will not find anything of interest, which minimizes their individual workload?

Obstacles

There are many possible associated costs to this research methodology as portable and proprietary intellectual property of CIRIS. The monetary cost, lack of data, corruption of data, risk of extra-judicial punishment in the form of political reprisal, or other consequences that cannot even be conceived by minds operating on a good-faith basis when they expect the highest levels of integrity from elected public servants.

Recommendations for Future Research

To reiterate: this research design process is proprietary in and of itself. This should be the longest section of the dissertation. The process is being designed to be portable to any jurisdiction; by asking a particular series of questions, the aim is to be able to statistically analyze the quality of public service as it relates to domestic relations court proceedings. The intent is to be able to individually track judges’ and lawyers’ unique identifiers to answer questions like, *How many children suffered found neglect and abuse during certain individuals’ involvement in their domestic relations cases? How many children went into child protective services and then went missing? What correlation exists in the public record between elected public servants and practicing attorneys before and during their public service? How do we build a toolkit to*

statistically analyze case outcomes using data available in the corresponding information technology systems?

Defining ‘randomization’ within a limited-outcome system

The concept of ‘random’ is a good starting point: a truly random outcome draws from an infinite set of possible outcomes. A finite set of outcomes, numerically encoded into actual outcomes, is NOT ‘random’ in the statistical sense of the term – it is not random if the outcome ALWAYS favors a particular participant. As it relates to a normal distribution of data: a sample set that appears to be bell-shaped is an effective and safe test to quickly assess a data set for viability for further analysis. Continuously learning how to analyze new data, new data sets, and new data presentation methods requires that data managers understand how limited possible outcomes actually affect the outcomes collected, for how these two data sets compare to each other tells researchers where to look to obtain the additional data necessary to call the research objective and honest. This is the whole point of peer review: *“Here is my data set, here is how I collected and validated it, here are my conclusions. What do you think?”*

Operationalizing the Research Plan

Illinois Supreme Court Rule No. 68 governs the financial reporting process to which Illinois Judges must conform as a function of their paid public service obligation to the People of the State of Illinois. I began by going to the Supreme Court Clerk’s Office located in downtown Chicago. There, I picked up the request forms, which were carbon copies each individual judge would receive as notification that their records had been requested. These requests are confidential. Then, I turned in copies of the request forms over to the Supreme Court Clerk’s Office located in Springfield, the Illinois State Capitol. I received confirmation letters from the Supreme Court Clerk’s Office and the cost of what it would take to prepare the records and mail them to an address of my designation. The records arrived in one box within a reasonable amount of time, and I began my analysis of the same. The Supreme Court of Illinois provides instructions

and a fillable form so that judges shall comply. There is certain numerical data already encoded in certain steps of the process, but most of the information provided is not usable numerical data in any respect. Furthermore, the Illinois Supreme Court does not clearly state the purpose of having judges submit this information as a function of their public service if it is ever stated at all. Upon review of the information provided, there is a spectrum of responses, not just as the judges' records are compared to each other judge by judge, but even as the records of each individual judge are compared to the same judge's preceding years' declarations, there is variance in how the responses to the questionnaires' prompts evolve over time for each particular judge.

Implications

So, a statistical analysis of how judges' net worths change over time in comparison to their fixed-income state salaries and benefits would require more data to complete before any trends could be analyzed to determine a statistical correlation between case outcomes and net worth growth before anyone could make the assumption that certain judges could be accepting bribes. Whatever the purpose of having judges comply with this financial reporting process may be, given the information received from the Illinois Supreme Court Clerk's Office, judges and their spouses, and sometimes, even their children, are smart enough and professionally accomplished enough to know that whatever materials they submit are not going to be able to prove or disprove whether they may be receiving some type of compensation from litigants by and through their counsel in exchange for favorable rulings. Additionally, as judges' careers progress, a measurement of how forthcoming they are can be seen as they disclose fewer and fewer details, still legally in accordance with Rule No. 68, mind you, but almost as if they are being coached by their peers as to what is too much information to be disclosed because the process is not really standardized to the extent that it could be used in a real national credit and financial background check similar to what members of the US Military go through as they are vetted for security clearances.

From a position of personal, professional integrity: that being of high professional, ethical standards, being capable of demonstrating a public service mindset to the highest ethical standards, understanding the importance of transparency and oversight in public service - especially as it relates to a judiciary that presides over domestic relations and criminal matters and the control

those courts have over individual finances and freedom - there appears to be a carefully codified castle around lawyers and judges (who used to be lawyers). Who - or what - are they protecting themselves from? Each other? No: they rarely hold each other accountable, and when they do, it is only in the most superficial ways. Pro Se litigants? No: until January 1, 2023, there is no expectation that public servants even follow the Judicial Code of Conduct.

Discussion

The bigger question is: *If these public servants only so rarely hold each other accountable, and they only so rarely update the rules that govern their conduct - to include the rules of how transparent they need to be financially as a function of how the reporting process is codified - how does the very public that pays their salaries, to include their retirement and healthcare for them and their dependents, has any real insight into their character of service to be able to call those elected public servants 'honorable' or not? What recourse does the public actually have when judges commit malpractice, especially considering the local political affiliations that lead to them becoming and staying judges?*

Only recently, the Supreme Court of Illinois entered an order dated July 1st of 2022, effective January 1st of 2023, whereby they amended IL Supreme Court Rule No.71 regarding violations. When one looks at the changes that were made (found in part 1 of the amendment), consideration of those changes really provokes some interesting thoughts. For instance: if it were that easy to amend, why was it not amended sooner, so that judges would actually be able to be held accountable for their judicial malfeasance, when and if it occurred? If the appearance of propriety is so important, why would it not be effective immediately? Why does it take six months for judges to be able to comply with the Code of Judicial Conduct if they are already so 'honorable'? Why would judges, who take an oath to uphold the public trust as a function of their social contract with the very public that pays their state salaries and benefits for them and their dependents, who at the same time demand fealty to their presumed honor and regularly lecture the public about the rules of evidence and civil procedure, with all their professional experience and accomplishment as demonstrated by what financial holdings they and their

spouses have (even if the public cannot see how much those holdings amount to), how can they with all of those resources and experience not see that such a change to Rule No. 71 is such an elegantly nuanced example of impropriety so as to protect them from the very public that provides such a professional lifestyle - work environment, armed security, guaranteed re-election with 60% of the vote in a one-party jurisdiction/voting district, et cetera, yet still be so contemptuous towards that very public to not be able to choose to hold themselves to a higher personal ethical standard?

Now, look at the affidavit that litigants have to complete as a function of domestic relations court in Illinois, even as Pro Se litigants: look at the detail they have to provide to lawyers and judges (who used to be lawyers) so that the court can appropriately determine what portion of the parties' net worth they are going to assign to their industry partners as legal fees, and look at the standard that litigants have to maintain under threat of penalty of law. Look at how lawyers and litigants can use certain filings, like substitution(s) of judge for cause versus a matter of right, how leveling the playing field laws and financial attrition laws are used in Illinois, or how lawyers and litigants can use state resources as a bludgeon to administratively reappropriate resources away from struggling families instead of using state resources to actually help those families. Why have judges generated paperwork that provides no financial transparency to the public, especially if the clerks will accept it, even if the information is unreadable? Some of the documentation provided by judges and accepted by state clerks is unreadable garbage: if a pro se litigant were to submit that quality of documentation as an exhibit, it would be either rejected or useless as such.

Recommendations for Future Research

Researchers have to get access to the appropriate data in order to be able to conduct relevant studies of public servants' behavior as a means to qualify the character of that service; otherwise, how does the public know they are getting the quality of public service being sworn to by people who should be able to demonstrate the best effort and highest levels of integrity from a lifetime of sensitive work as lawyers? Judges' campaign finance records can be requested

through FOIA processes, perhaps their tax returns can be obtained somehow, and there are supposed to be documents maintained by the Illinois Secretary of State that can supplement the 'financial' records that were already supplied in response to our requests. State records, owned by the People of the State of Illinois, can be obtained and demonstrate how certain lawyers spend their entire careers working with certain judges to effectuate particular outcomes, and the character of those interactions can also be studied. As it relates to domestic relations, where the spectrum of outcomes can be amazing stories of families succeeding to the worst possible outcomes for families imaginable. Even as it relates to the court reporter process, where court reporters create shorthand notes, and upon request, those notes are transcribed into long-form dialogue, for a fee, there is no mechanism to ensure that everyone is doing their job right. The public is told that those shorthand notes are property of the State, like the People of Illinois don't own the State of Illinois!

The People have a responsibility to educate themselves to the point that they can hold their own elected public servants accountable; otherwise, things are only going to get worse for the People living and paying taxes in these judges' jurisdictions/districts, most obviously, in Cook County, Illinois. If all public servants were always doing their jobs with their best effort and integrity, then why are programs like Court Appointed Special Advocacy of Cook County necessary? How does participation in such programs compared to the local population as that population changes? If public servants are doing their jobs in good faith and to protect the trust the public has placed in them, then why are the participation statistics related to foster care indicative of disproportionate participation by certain segments of the population? How do policy agendas affect the quality of life for participants? How does the rate at which children are placed in foster care relate to the rate at which they age out of the system? Why is that? Can anyone really say with any statistical certainty that the resources allocated to the public servants that administer these services are being protected with any type of good faith stewardship if no one ever spot-checks the work being done?

Cook County, Illinois is the perfect place to start looking for data to analyze using mixed methods approaches to help answer some of these questions while looking for new answers to questions we have not even thought to ask yet.*

Travis Hackney

travis@ciris.info

References

**In the attached file you can find the following documents: rules, rule change, instructions, judges' files, litigants' requirements. Notice the double standard, and why CASA exists. This calls for more research on this topic.*

Download: [Cook County, State of Illinois, Judges Financial Records & Rule of Conduct \(RAR File 67MB\)](#)

The International Security Environment Relevant to Pakistan (A Historical Perspective)

Abstract

Pakistan came into existence amidst one of the most tumultuous times of the Cold War which suddenly escalated unprecedentedly in a manner where small, newly freed out of the colonial clutches, administratively fragile, economically unsustainable and, most of all, poorly led nations were caught in a sheer state of insecurity. Mentioning Pakistan precisely, it had not even emerged on the world map when prominent world leaders especially Pandit Nehru and other leaders from his party embarked upon an exhaustive campaign against its survival. Their propaganda hinged on a widely publicized conviction predominantly furthered by the western media which doubted Pakistan's sustenance as a state rather they predicted its re-amalgamation into India due to its highly remote administrative infrastructure, absence of sound economy, and lack of pragmatic political leadership. This scenario was aggravated by almost the entire Muslim religious hierarchy in the sub-continent which fiercely opposed the creation of Pakistan, thus posing formidable existential threats to the newly born Muslim state.

An earnest effort, therefore, has been made to evaluate the international security environment within the ambit of international relations where Pakistan as an ideologically Muslim state commenced with its role as a responsible nation contributing to world peace.

Keywords: *Pakistan, International Security, International Relations*

Introduction - Comprehending the Conceptual Nature of International Security

International Security: the most sought term in the field of international relations in the post- World War II era (since 1945) can be characterized as a ‘comprehensive security’ infrastructure with a predominant culture advocating concrete measures for the shared protection of interests and assets by states, communities, organizations, institutions and multifaceted groups against a number of anticipated threats (Schmid, 2007). The foundational objective of these measures is to ensure the nation's survival, stability in the region, peace among citizenries, and geo-political harmony among states (Eroukhmanoff, 2017). Theoretically, an ideal structure of international security is spearheaded by the political leadership intimately supported by diplomatic channels while military and other law enforcement agencies function within their prescribed areas of responsibility as a consolidated component of the whole security mechanism in order to ensure the accomplishment of assigned goals pertaining to protection and peace (Irondelle, 2013).

Under the prevalent geo-political scenario, the academic field of international security, especially within the realm of international relations has turned out to be an excessively complex phenomenon that has been further compounded by an outdated mindset nourished by the heaps of obsolete texts and, exhaustive preoccupations of researchers, scholars, and practitioners to keep themselves oblivious with the tectonic changes at the global level that impact safety and security, both guaranteeing the survival of a state and its citizens (Kolodziej, 2005). However, paradoxically, there exists an unbridgeable gulf between the proponents of state-centric practitioners in the arena of global diplomacy (international relations) and the citizen-centric academicians, the advocates of human well-being as the foremost priority (Paris, 2004). Moreover, the people-based concept of security (international or otherwise) seeks an outright departure from a redundant notion that is based exclusively on physical aspects where psychological aspects of a human are straightaway ignored. The most notable in this case is the dichotomy in defining the universal concept of international security with its boundaries. Although, every divine order in the world abundantly explains almost all aspects of human security commencing from domestic abuse to state-sponsored genocide, the concept of

international security within the fold of international relations is construed with vested objectives and interests, thus curtailing citizens' psychological as well as physical freedom of expression and actions. This atrocious environment was, however, already prevalent since time immemorial, but has intensified beyond any proportions since the advent of the Cold War in 1945.

Undoubtedly, the cloaked empirical, as well as normative discourse in conceptual persuasiveness, deliberately amplifies the polarities and disjunctions (Baldwin, *The Concept of Security*, 1997). This particular scenario is developed to privilege the state-oriented school of thought while denying the same to the human-centric counterparts under the pretext of national security; yet another unexplainable concept in the domain of international security which is predominantly based on Structuralism. The custodians of this notion of national security comprising political, military, and civil bureaucracies supported by the elite hailing from every quarter of state structure, especially the religious tentacle explore, formulate and implement the policy which is legitimized for targeted objectives; at times, devoid of public interests (Krebs, 2018). This is the foremost reason to curb human rights, an independent individual will, and a non-coercive environment (Baldwin, *The Concept of Security*, 1997). This conception turns out to be chaotic when geo-political scientists perceive it with acute divergence. There exists a perception that the crux of international security within the fold of international relations rests on defending the core value system based on the ethics, morals, and beliefs of a state (Nandan, 1945). But this is a totally outdated concept that is found in tired texts highlighting the US foreign policy related to Isolationism under the Wilsonian thoughts. However, subsequently, the so-called core value system encompassing ethical and moral aspects was superseded by another realistic system that advocated the preservation of national interests by employing any foreseeable means under the garb of international security (Baldwin, *The Concept of Security*, 1997), a scenario which converted the world into an insecure and unpredictable arena for the whole world, especially politically fragile and economically dependent states like Pakistan. But there is an argument that advocates that international security is an imminent means to reduce vulnerability. This concept of security is pointedly relevant to the state while relegating its citizenry earned popularity through extensive propagation by all means at a state's disposal coupled with justification under the international relations' umbrella of Machiavellian political thoughts (Ullman, 1983).

Notwithstanding, Professor Emma Rothschild extends the all-pervading notion of security (based on an evolutionary process of the 1990s) into four distinct components that amalgamate into one compact structure (Rothschild, 1995). Their origination is fundamentally human-centric and, is categorized as under:

- Firstly, the security of a nation is descended downwards to incorporate communities, groups of people, and even individuals.
- Secondly, the security of a nation is elevated to an international system (comprising a number of nations) which is defined as the supranational infrastructure.
- Thirdly, the idea of security is stretched horizontally within a state, community, and organization in which components of social, political, economic, and military are incorporated into one structure.
- Fourthly, the security of every segment within and outside a state is the foremost responsibility of the political hierarchy as a prime invigilating component.

Pragmatically, the state government engages every component of national security which is intensely coupled with its international counterpart in a comprehensive but extended mechanism. Proceeding upwards, it starts from national to international organizational and institutional levels while moving downwards, it commences from national to sub-national, communal, and geographically regional levels. The most important component is the lateral extension of security which comprises the citizenry, especially engaging its psychosocial state (mental health), opinion based on freedom of expression, liberty of actions, and sovereign thought process, all assured by the state is devoid of any fear of reprisal and persecution. In the same context, non-governmental organizations, media, press, private institutions, associations, organizations, and working groups are also incorporated into an extended spectrum of security (Rothschild, 1995).

Conceptually, the geometry of principles of ‘Comprehensive Security,’ or may appropriately be termed as ‘international security’ proposed by Professor Emma Rothschild, shuns the confusion arising from any complexity in debates. Historically, the course of peaceful revolutions in East Europe in the 1990s predominantly emphasized the top priority of sovereign thought. According to Vaclav Havel, the sovereignty of a state, a nation, or a community can

only be considered genuinely sovereign provided it emanates from a human's independent thought process, free expression of ideas, and freedom of actions (Havel, 1993). This notion can only prevail when citizens in a state are guaranteed a secure and peaceful environment by means of security.

International Security's Alignment with Dominant Socio-political Theories since the Emergence of Pakistan (1947 to present)

However, the hard fact remains that a false image of national security concocted by the malicious mindset misled the world which ultimately turned into a dangerous place. However, according to a considerable number of experts international security can be termed as normative in nature; a theory in the discipline of international affairs which pursues efforts to ensure peace and harmony among communities by aligning normativity with idealism, realism, liberalism, Marxism, globalization, and constructivism; all within the fold of political science (Baylis, Smith, & Owens, 2011). So, under the pretext of normative theory, states enforce their particular form of international security as a measure of expediency as well as the self-conceived ethical code which, in other words, is a cogent measure poised to achieve an end acceptable to the majority irrespective of negative impact on the people (Wolfers, 1952). This particular phenomenon has created unscalable barriers in the thought processes among nations, communities, organizations, and institutions, thus converting the world into a lucrative place for wars and conflicts.

The Ukraine crisis is the most glaring example in the prevalent geo-political scenario which has set the southeastern part of Eurasia at ablaze. People with varied mindsets possessing highly divergent perceptions of threats, their nature, types, and, most of all, priorities to deal with them in various parts of the world are trapped in the most chaotic scenario with regard to international security within the domain of international relations. This is a dilemma at the global level where nations and communities find themselves incapable of reaching a consensus on the nature of a particular threat, its intensity, and suitable modus operandi to eradicate it up to a certain extent where it no longer exists as a threat. However, it again depends upon the thinking

nurtured by a particular nation or community (Newman, 2010). Yet, another aspect that geopolitical scientists argue is that international security in the international arena can either be projected as an instrument of power or merely be employed to restore order and maintain peace. However, it pursues the state policy destined with specific goals.

The deployment of the North Atlantic Treaty Organization (NATO) in Afghanistan with a mission to ensure peace in the region is a befitting example to support this point of view (Buzan, 2008). This particular case proves that international security has turned out to be a global phenomenon exercised by multinational organizations and institutions to further their states' national interests. In this regard, non-governmental organizations have played the most strategic role by employing clandestine operational techniques masked by their designated functions in the target country, community, and organization (Rothschild, 1995).

Foregoing in view, there are some prominent socio-political theories that serve as the foundational part of a structure of international security in contemporary international relations:

- Realism (Classical Realism). It is out rightly considered the most dominant socio-political theory (within the realm of international security) commencing from the epochs of Sun Tzu (544-496 BC) and Thucydides (400 BC) to Niccolo Machiavelli (1469-1527), Thomas Hobbs (1588-1679) and Jean-Jacques Rousseau (1712-1778) (Elman, 2008). This period is stretched over 2300 years which distinguishes its strength and efficacy in international affairs. However, it is 20th-century classical realism that transformed international security which advocates that the ambition for power infused in human nature, though ethically fallacious, prompts communities, institutions, organizations, and states to remain engaged in pursuit by all foreseeable sources and strategies to enhance their potentialities. In addition, the non-existence of an analog of the state power in the international arena inculcates a laissez-faire attitude thus allowing appetites to extend its domain and influence. This particular category of Realism explores conflictual responses and attitudes based on which hostile environments are deliberately crafted by hawkish statesmen corroborated by the state's cardinal organs; legislature, judiciary, and military to pursue its vested interests under the garb of deceptive narratives. According to classical realists, international politics may be described as iniquitous due to

reasons that, at times, wicked people at the helm of affairs resort to villainous policies (Spirtas, 1996). This particular theory emanating from classical realism has been elaborated by Professor Morgenthau in his unequalled classic work on the political realist approach; *Politics Among Nations: The Struggle for Power and Peace* which is still thought to be relevant by socio-political scientists (Elman, 2008). In addition, the theory of realism with its distinct multiplicity furthers the point of view that international relations are categorized by the inexhaustible and ineluctable spell of belligerence and hostility leading to armed conflicts (Elman, 2008). In brief, realism along with its multiplicity within the realm of international security in international relations stresses that:

- The most pivotal player in the wholesome international order is a nation-state.
- International institutions and organizations are of less priority than a state.
- Communities, groups, and individuals do not have preference over a state.
- Divergence of focus from the state's interests would disturb the balance of power.
- International institutions have the least interference with the state's sovereign matters.
- The international order is anarchical in nature while implementing it.
- The most cardinal objective of a state in the international arena is its survival.
- The factor of survival is analogous to the maintenance of national power.
- States operate on a rationale that dictates the primacy of the national self-interest.
- National power is an indispensable factor for influence in the international arena.
- Power in the international order is the direct outcome of force in human nature.
- Humans depend on anarchical ways for survival in many ways including war.

- Neo-realism. This theory can be characterized as the contra classical realism. Discussing classical realism, Hans Morgenthau assumes that it is the leadership of a state which is influenced by ambitions to clinch power. Kenneth Waltz, who has replaced Morgenthau in this academic field of realism, contradicts this assumption by omitting leadership's driving ambitions coupled with the state's aspirations, rather he ascertains that primarily, it is an urge for survival (or probably the maintenance of status) which dictates a state and its leadership to pursue measures for security in the international arena. According to classical realism, the state strategies and policies are predominantly rationalistic in nature which neo-realism confronts, explaining that states' responses and their conduct are dictated by nature and the degree of competitiveness among them. States opt for courses of action which yield them an edge over their competitors. Neo-realism explores, yet another characteristic of geopolitics in international relations; its 'dismal constancy' despite fast-changing geo-political environments coupled with fluid political conditions within as well as among nations. This peculiar aspect amply leads to the conclusion that whatever strategies and policies are applied by states in the international sphere, are aimed at their survival (or to maintain their status) (Waltz, 1979). According to neo-realists, the international political arena depicts a gruesome scenario instead of being belligerent and confrontational (Spirtas, 1996). They envisage that multipolarity is more complicated and burdensome than bipolarity. Moreover, the degree of interdependence among states in the international political system is inversely proportional to the stability in a peaceful world environment. According to Waltz, interdependence among nations will be less in bipolar geopolitical environments as compared to the multipolar global system (Waltz, 1979). However, it has been observed that Waltz's theory of polarity has proved utterly short of pragmatic expectations. The era of the Cold War (1945-1991) presents an unmistakable example in which two superpowers reigned supreme as hegemony within their respective sphere of influence at the cost

of the sovereignty of other states. The focus on international security in international relations was at its peak that receded colossally after Russia's strategic downsizing which is popularly termed its demise. The absence of a belligerent in the international theater made way for fissiparous tendencies in big powers and their allies in the capitalist west. The search for an adversary was already in progress for decades which culminated in the shape of Islamic terrorism; a scenario that heralded the renaissance of classic realism. In contrast, Neorealism contradicts classical realism's arguments about human nature which is thought to lead to the entire spectrum of a state's affairs in international relations. It ascertains that the particular structure of an international system determines the behavior among states exclusively based on the nature of the institution or organization (Rosenau & Durfee, 1999). Although it does not outrightly discard the role of human nature in the international sphere arguing that the human psyche does have an important character on the stage, it does not directly impact the state's behavior which is predominantly under the immense influence of international order. It is primarily the lack of authority to supervise and monitor the international system which creates environments where states act keeping their national interests as the top priority over other obligations. This tendency of self-interests among states is augmented by another factor in which one state acts to prevent another, though an ally or otherwise, from serving its national interests (Baldwin, 1993). The United States' pressure on Pakistan to abandon China-Pakistan Economic Corridor (CPEC) coupled with its alleged involvement in the country's internal affairs is the most obvious case in point which has destabilized the political and economic systems of the nation. Historically, it is abundantly clear that within the domain of an interdependent international system, states covertly as well as overtly resort to deprive, deny or prevent their competitors, despite being partners and allies, from gaining an advantage at the cost of their own national gains. The Russia-Ukraine War (2022) presents it as another glaring example: the United

States, North Atlantic Treaty Organization (NATO), and European Union (EU) have developed their gains at the cost of miseries suffered by the Ukrainian people. This war has furnished an opportune moment for the United States to pump its armament industry with billions of US Dollars for arms supplies to Ukraine, to NATO for its expansion, and to the EU for generating businesses in terms of hundreds of billions of US Dollars (Castle, 2015). According to neorealist theory, Russia's military operations against Ukraine are distinctly rationalistic in nature aimed at safeguarding its geo-strategic objective in the region while, at the same time, preserving its geo-political edge over the US-led NATO and EU. This entire phenomenon is based on the anarchical international mechanism (Cook, 2016).

The Multi-sum International Security Structures under the Umbrella of Traditional Security Systems

The domain of traditional security adheres to the theory of realism with its wholesome multiplicity in which the cardinal factor of international security within the realm of international relations is a state while relegating the citizenry to the subordinated slot. The pervasiveness of these theorems dominated the Cold War era (1945-1991) during which nations, especially major powers invested unprecedentedly in international security under the pretext of national sovereignty and interests, and balance of power aimed at maintaining state's geo-political influence (Bajpai, 2000). In nutshell, traditional security is overwhelmingly the classical realist-centric component within the domain of international security (Owen, 2004).

The Multi-sum International Security Structure

With the advent of the 21st century, technology developed at a mammoth scale which altered the whole global geo-political scenario. Traditional theories, if not rendered redundant, surely fell short of their efficacy in confronting the latest advancements in every field, specifically the latest trends in modern warfare. With this notion in mind, Dr. Nayef R. F. Al-

Rodhan asserted that the concept of international security under the 21st century's scenario of international relations could never be applied as a zero-sum game in which states are the exclusive dominant players and, moreover powerful states exert their influence over the weaker nations in order glean the maximum advantages under the shelter of their national interests while literally abandoning others in a chaotic situation. The United States' withdrawal from Afghanistan which shocked the whole world especially NATO in that country is an unprecedented example that realist scholars would continue to quote until the same episode is repeated by some states.

Dr. Nayef suggests that international security within the realm of 21st-century international affairs should comprise of five integrated components to establish a security cauldron in the following order of priority:

- Human Security (Psychological and physical)
- Environment Security (Social, political, economic, and physical)
- National (incorporating communities, ethnic groups, religious sects)
- Transnational (based on Panchsheel Principles)
- Peaceful and harmonious coexistence

Dr. Nayef stressed that the concept of international security under the prevalent geo-political scenario is wishful thinking without efficient governance encompassing at lateral and horizontal tiers of the governmental structure whose preferences must commence from the citizenry (along with their psychological, social, cultural, political and physical aspects), environments, national till their culmination at the international arena (Al-Rodhan, 2007).

International Security and Pakistan

Having studied the historical perspectives of international security within the domain of international relations coupled with colossal changes due to technological developments in the 21st century's international relations, it is comprehensively understood that the sphere of international security has also transformed itself to meet the prevalent geo-political world's security needs. Based on highly remarkable work conducted by scholars, researchers and

practitioners referred to in this research paper, there exists no ambiguity that a state like Pakistan must refine its national security mechanism with the objective of bringing it in line with the concept proposed by Dr. Nayef advocating the Multi-sum International Security Structure which has gained the worldwide acceptance. However, the foremost prerequisite to implementing this concept is efficient and stable administration which can only be achieved when there is political stability in the country and all the state institutions realize their sense of responsibility and work collectively for the welfare of the nation.

Dr. Ahmed Raza

Raza998@gmail.com

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Kenning the novelty of New Wars

Abstract

War has long been part of human history, and its atrocities have made it part of academic practice to avoid it in the best possible manner. To understand the intensity of an issue, one must investigate it. The decades-long debate over the changing characteristics of war has blurred the actual concept of war. Advancements in technology and globalization have changed the conduct of war to a new form. This paper synthesizes the conception of war and tries to differentiate it from the new war. It presents arguments from both sides: the new war and orthodox war scholars. It later presents the old war scholar's defense that war has not changed its nature. It also presents Clausewitz's War Studies as a litmus test for the "new wars" scholar's claim. It emphasizes the outcomes, goals, and actors of warring parties as a foundation for new war scholars.

Introduction

Today's globalized world has blurred the definition of war with the constant use of the adjectives "old" and "new." Today's world focuses more on the adjectives' meaning and dynamics than on the definition of the word "war" itself. To understand these two adjectives, one must separate them and explore the essence of "war." The classic definition of Clausewitz regarding war is "throughout history, a normal way of conducting disputes between political groups" (Strachan, 2007). On the other hand, the definition revolves around the modern writer reflecting the use of violence in his work. The term "new war" (Kaldor, 2012) got currency in the late 20th century and the beginning of the 21st century, when the mode of warfare got changed by the idea of globalization and the advancement of technology. The "New War" is the product of globalization, which emerged during the second world war and the cold war (Kalyvas, 2001; Berdal, 2003; Mundy, 2011). To answer the question that there is no "New Wars", only "Old

Wars" fought with the latest technology. This paper will try to show both sides of the argument for new and old wars, and it will also try to explain the old wars approach with the latest technology. Chapter one introduces the topic and provides the context of old and new wars. It also presents the literature of existing scholars. Chapter two defines the term war and presents its characteristics. It mainly focuses on Clausewitz's study of war. Chapter three provides the complete vocabulary of new wars. It presents its characteristics and grounds as a sub-topic of the chapter. Chapter four brings back to the study of Clausewitz and re-interprets war. It tries to eradicate the confusion regarding war conception. In its sub-heading, the chapter traces the characteristics of new wars in old wars. Chapter five touches upon the idea of cyber war as a new war.

This paper investigates the war in the context of "new wars," a novel term and ideology presented by scholars. Initially, it tries to define war and provides a broader context of war which is standard on both sides. Later it tries to present the new war scholar's argument, which differentiates it from conventional wars. It brings forth the characteristic-based distinction in terms of ideology and means. The topic has been of great importance since the U.S withdrawal from Afghanistan. It also touches upon the declaration of the end goals of the Taliban in Afghanistan. Technically it dismantles the whole conception of the non-state actors and their goal to remain in war as a business. On the Hine side, it also presents the policy framework to fight such intra-state wars or increased civil conflicts. This study will help the researcher further investigate the area of new wars in the modern age and the age of cyber warfare.

Literary Review

New and old war has long been a topic thesis and counter-thesis for scholars. The new war school of thought (Kaldor, 1999-2012; Held et al., 1999; Morgan, 2007; Snow, 1996) states that war has changed its nature and characteristic. For them, the goals and the end mean deciding the nature of war. For Münkler, the vocabulary of the new war blurs the idea of goal classification and merges power lust, ethnocultural conflicts, and ideological deviances. Having no definite goals and purpose makes it difficult to end the conflict between the warring parties

(Münkler, 2005). For Kaldor, a new war fought by the warlord and non-state actors has no definite goals. States do not fight each other in new wars (Kaldor, 2012). For Strachan, the state is the leading actor behind the conduct of non-state actors and warlords. They possess debatable end goals (Strachan, 2012). For Henderson & Singer, new war scholars such as (Holsti, 1996; Kaldor, 1999) club the comprehensive classification of war under the umbrella of "Old War" and presents a new scientific domain as "New War" (Henderson & Singer, 2002). For Strachan, Clausewitz's war studies have been misinterpreted and presented without context to shape the new war narrative (Clausewitz et al., 1989; Strachan, 2012). Clausewitz's trinity presents the changing characteristic of war (Schuurman, 2010).

Understanding War

Clausewitz states that "war is nothing but a big duel". In another account, he states, "war is nothing but an act of violence meant to force our opponent to do what we want" (von Clausewitz et al., 1989, p. 75). "Just Wars" provides moral permission for the act of violence instead of the conditional requirements. Condition-based war comes under the umbrella of the Juridical definition of war. Clausewitz provides the political definition of war as an act of violence, whereas Singer and Small provide the sociological definition of war (Wolfendale, 2017). Violence is the only condition that defines war. "Not only is war impossible without violence, but we consider the taking of human life the primary and dominant characteristic of war" (Small et al., 1982). On the contrary to this, yes, war is an act of violence, but it can get controlled or limited. One Prominent example of such wars could be seen in the wars fought under the leadership of Prophet Muhammad (S.A.W). Only one thousand casualties occurred within all warring parties (GÖKALP, 2021). It underpins the critical role of goals of war and end means. It also presents the law of war that were implemented by Him in that era and laid the foundation of the war laws, conventions, and norms. It helped to stick with the goals and avoid using inhumane activities in the war. The most common types of wars are interstate wars, civil wars, and extra-state wars. The classification is based on the typology, which rests on the type of participants, goals, and affiliation (Small et al., 1982).

Civil war and the low-level conflicts driven by religious or sectarian goals present the "new civil war" or the "new war." This type of conflict is nothing new, but it has been present in the past on a large scale and with greater magnitude. The work of Jomini from the 1960s also depicts a similar expression. Baron De Jomini is also known as the father of tactics and logistics in the art of war. He was the first to introduce logistics as a standard term in warfare, which is still applicable in modern-day warfare. In his book "The Art of War", he states that war is not a science but an art based on the six major principles: strategy, grand tactics, logistics, engineering, minor tactics, and statesmanship relations with war (de Jomini & Schulze, 1862, pp. 19-20). The essential principles of strategy are: determining the theatre of war, determining the decisive points; determining the base zone and the operational zone; determining the mode of war; determining the line of action; determining the objectives; defining the strategic line; evaluating bases of operation and diversions (de Jomini & Schulze, 1862, p. 152).

The primary work of Jomini, unlike Clausewitz, is based on the conduct of the war. Despite defining the war, he elaborates on different reasons which lead a state to pursue war. States fight wars to defend or claim rights, pursue the state's greater interests, protect close neighbors for their protection, aid as an alliance, annex, expand, and display muscles, defend sovereignty, and seek respect or honor. This reason heavily influences, on the one hand, the nature and, on the other hand, the conduct of major interstate wars; alliance wars against a single enemy; alliance wars with other states to assist in an ongoing war; national war; proxy war; or religious or civil war (de Jomini & Schulze, 1862, pp.22–25). Grand tactics are all about appointing the troops and arranging them effectively according to the requirements of the situation (de Jomini & Schulze, 1862, p. 155). His studies showed that most of the wars that people have been calling "new civil wars" or "new wars" since the end of the 20th century.

New Wars

"New war" is the state's socioeconomic condition based on the combination of private investors, non-state actors, and globalization (Held et al., 1999; Deacon, 2012). The state becomes a failed state (Kaldor, 2012) when it cannot protect its citizens due to a weak socioeconomic situation (Morgan, 2007). The phenomena which strengthened the need to revisit the nature and characteristics of war were the post-Second World War relationship with the

declining rate of interstate war (wars between the states) and the increased rate of intra-state wars of civil conflicts (wars within the states). Mary Kaldor, in her book "New and Old Wars" (3rd edition), characterizes and differentiates "new wars" from the "old wars" by presenting the argument of Clausewitz that "war is an act of force to compel our enemy to do our will" (von Clausewitz et al., 1989, p. 75). "New wars" are a phenomenon that is more concerned with the war itself and the business of war (enterprise) than with a quest for will on both ends. The goal is grabbing the utilities rather than winning or losing in a war (Kaldor, 2012, p. 218). At the same time, the old war has a clear outcome in terms of results.

"New wars" are classified on three major criteria: goals, tactics, and financial resources to carry out the mission. The first characteristic refers to the creation of new identities. The new type of war aims to pursue identity politics rather than focusing on regional, geopolitical, or ideological ends. The new types of identities get formed to carry on the business of the war. These identities are more grass-root level identities, including national, religious (sectarian-Shia-Sunni) and tribal identities against the old ideological identities like socialist, communist, and capitalist identities (Kaldor, 2012, p. 7,8). "War tactics" referred to as the second major characteristic differentiating the "new wars" from the "old war". The pre-requisite for it is guerilla warfare and "counter-insurgency". She elaborates that it gets used to control the public's thought process and to control minds without getting involved physically. (Kaldor, 2012, p. 9). The idea of making identities works as a spark to spread fear and hatred in public, which is needed to keep the business of war going.

Characteristics of New War

New war scholars state that "New Wars" differs from the "Old Wars". First, the conflict shifted from European regions to post-colonial regions. Second, it shifts its concentration from interstate conflicts to intrastate conflicts. Third, "New Wars" carries comparatively different goals and results. Finally, it requires a new policy approach to fight such wars (Kaldor, 1999-2012; Sarkees & Schafer, 2000; Small et al., 1982). Violence in new wars gets directed toward

civilians instead of the formal forces. Unlike in the old war, violence gets used against the armed forces. The third characteristic that differentiates "new wars" is the financing mechanism.

Under these conditions, organizations like this rely on third-party financing. The major sources of revenue for the war economy in the new war are "plunder, hostage-ransom, illegal weapons trade, drugs export, valuable commodities trafficking, human trafficking, and prostitution" (Kaldor, 2012, p. 10). Whereas the "old war" gets driven by taxation and state revenue. Globalization has allowed non-state violent actors to access international markets without the state's interference. With innovation and technological advancement, transactions between local and international parties have become easy. It has provided a platform with assistance to the illegal arms trade for such groups around the globe. "Greed and grievance" need attention to understand the acts of violence in the "new wars" (Berdal, 2003). The death toll is five times that of an interstate war (Mundy, 2011). Old civil wars were fought for noble causes, political agendas, and social change and had public support. Violence gets carried out to the minimal degree under which stood allowed in any rebellion or uprising. At the same time, the new civil wars get fought for private goals and criminal activities. New civil wars lack public support and use limitless violence with no direction (Kalyvas, 2001). Most of the work done by "new war" scholars tries to get rid of Clausewitz's real work, which was done under different circumstances but is still useful.

Revisiting Clausewitz

There is a misconception about the study of Clausewitz that he advocated violence in War based on two assumptions: either they have not studied Clausewitz in-depth or merely studied it as the ideal condition. In his book "On War," he discusses how the idea of War and the reality of War are two different things. There is no clear outcome of the War, as the victorious side might have lost on the political front, and the side that has defeated might have had one on the political front. Thus, Clausewitz refers to the chance of conflict based on the desired results (von Clausewitz et al., 1989, p. 80), which Mary Kaldor has presented as that both sides do not fight to win the War but to achieve the goals in terms of utilities. In his book on War, Clausewitz states, "War is thus an act of force to compel our enemy to do our will" on the one hand and elaborates on the force further. Thus, the meaning of War is force—physical force because moral force does not exist

except as expressed in the state and law—and the object of War is to impose our will on the enemy. To secure the object, we must render the enemy powerless, and that, in theory, is the true aim of warfare. The aim takes the object's place, discarding it as part of the War itself "(von Clausewitz et al., 1989, p. 76). "Call it what you will—new war, ethnic war, guerilla war, low-intensity war, terrorism or the war on terrorism—in the end, there is only one meaningful category of war, and that is war itself" (Angstrom & Duyvesteyn, 2004, p. 52).

The other school of thought states that the idea of the "New War" is a total misinterpretation of the wars presented by Clausewitz. For Schuurman, scholars have yet to consult Clausewitz's literature or understand it. It has become a hindrance to understanding his studies' implications for the wars of today and the past. For the "New War", scholars generalize the idea of interstate War, extra-state War, and intra-state War as the "Old War". It provides them with a novel adjective, "New", which interprets that the nature of War has changed. The area is still debatable as few key areas have changed over the past decades, but the general nature of the War is still prevalent in war studies. The critical distinction here is the policy and conduct of the War, which requires revision in modern ages (Henderson & Singer, 2002). The "paradoxical trinity" is the gist of Clausewitz's literature based on the principles of violence, change, and rational purpose. It elaborates and helps to understand the basics of "absolute" and "real" War in each segment. Misunderstanding Clausewitz makes his studies redundant in the modern type of War (Schuurman, 2010). The novelty of the "new war" is firmly based on the adjective "new," which elucidates the importance attached to the policymaking process. Kaldor wants to bring the issue of policymaking to the limelight as policymakers are still following the post-Clausewitz wartime teachings to design policies to deal with the "new wars" (Kaldor, 2012).

According to Hew Strachan, the term "strategic" has lost its meaning in terms of War, and most people and scholars confuse the meanings of policy and strategy. Most scholars misunderstood Clausewitz's "war is nothing but the continuation of policy with other means" and linked it with the policy. However in reality, the book "On War" elucidates the War itself, not the policy or the strategy. Tony Blair and George W. Bush expressed a policy on the "global war on terror", but contrary to this, they had a policy instead of a strategy. Strategy based on the interpretation of the War and its nature rests on it to shape the policy. In ideology, strategy is

different from policy, but in reality, it is in constant dialogue with policy, according to Clausewitz. Sami Ramadani wrote about the lack of strategy in terms of the Iraq invasion: Tony Blair and Bush "allegedly launched the war at first to save the world from Saddam's" weapons of mass destruction (WMD), then to establish democracy, then to fight al-Qaida's terrorism, and now to prevent civil War and Iranian or Syrian intervention" (Strachan, 2007). Interstate war with a slow pace but with consistency has been present throughout the post-World War 2 periods, especially in the last four decades where the United Kingdom fought against Argentina in 1982, Iraq in 1990-91, Siberia in 1999, Iraq in 2003, and Libya in 2011.

In contrast, the risk register of national security states that the UK has the slightest chance of major interstate wars. Prominent scholars believe that interstate wars are the least likely phenomenon. However, a major interstate war is the least likely phenomenon (Strachan, 2012, 28:00). War is an art of the state used to achieve political goals that confront the idea of a "new war" Scholars who claim that in a new war, people will go to War will be proven wrong. The principal actors driving the new wars are warlords and non-state actors (Kaldor, 2012). The state itself is the primary characteristic that drives the warlord and non-state actors. It includes those fighting in love for the state (Strachan, 2012, 34:05). On the other hand, the significant contribution of the Civil War was the process of state sovereignty and the definition of their nature in the post-exit period of the colonial power from their empire. Civil wars since then have declined. Clausewitz's studies are even applicable to the domain of cyber wars. It goes side by side with the concepts of Sun Tzu from *The Art of War*.

New War in Old Times?

"To win one hundred victories in one hundred battles is not the acme of skill. To subdue the enemy without fighting is the acme of skill." (Griffith, 1963). It is prevalent in the action of cyber war activities as well as the physical force's activities, where the main initial goal is to make the command-and-control center of the enemy incapable. It is a very common term in cyber warfare, where they sneak into the enemy's computer and system to hijack and control it without getting involved in a physical confrontation. It is what the Strategic Support Force SSF of the People's Republic of China was assigned to do in the name of modern warfare and cyber warfare.

The different organized groups, with or without the government's regulation, are involved in espionage activities, especially PRC against the USA. William Lind and Thomas Hobbes state that the "new war" is fourth-generation warfare (4GW), and the most challenging thing in its way is the old school of thought driving to operate the new type of war in an old-fashioned manner (Cowen, 2008). In this book *On War*, Clausewitz presented the inter-related three aspects of the trinity as a fundamental aspect of the state. The three aspects that elaborate the direction of state and what is achievable from war are the blind force composed of primordial violence, hatred, and enmity; the play of uncertainty and chance in which the creative spirit roams; and the reason for violence, or the political instrument.

Clausewitz elucidates that war is waged based on the state's finances, resources, military capabilities, and policies and provides societal stability. If any of them gets disrupted, the situation can worsen, but the state can still survive; however, if all of these tendencies get disrupted, it becomes impossible for the state to resist (Sharma, 2010). In the era of information technology, everybody has become more social on social media, despite becoming social in the real world. Cyberspace has made the globalizing world more globalized and presented some miracles. On the one hand, it has made life easier, while on the other hand, it has made every single individual more vulnerable.

Cyber-War: A New War?

Cyberspace is not only confined to the public, but it also covers the military and governments worldwide, making them vulnerable simultaneously. Every single activity gets done via technology in daily life, which leaves a digital print and provides the pattern of activities. One can quickly transfer a considerable amount of money with one click through e-banking from the mobile app and invest or withdraw from the stock exchange. Almost all the activities are informative or information-enabled at the military level, ranging from ground operations to air strike-through unmanned vehicles and surveillance. While at the government level, most of the tasks are performed through technology, ranging from drafting legislation or running for public

office. All three of these three aspects of the state refer to the aspects of the Clausewitz trinity, where all are prone to violence through hacking, looting bank accounts virtually, and intervening in election campaigns as happened in the past (Sharma, 2010). A simple bug or error can cause a huge problem and can cause severe dents to the most efficient system on the globe. The Internet server went down in Sweden and Germany for a couple of hours; a systematic error in the Pentagon's system restricted them from connecting to satellite; a metro accident in Washington in 2010, 6 stealth rapport compute failures caused lost tracks; and many others (Goldsmith, 2013). It shows the tendency of the system to self-destruct if the whole system is hacked or crashed, on which everyday routine work is dependent.

New wars are never decided based on the modern or high-tech-military weapons used in the war. The War in Afghanistan deployed high-tech military weapons but remained the old war. It confirms through the surveillance footage of the intense conflict area of Afghanistan (Adoba, 2014). Three waves have changed the world's socioeconomic order throughout humanity's revolutionary history. According to Alvin and Toffler, these waves include the revolutionary agricultural wave first, the industrial revolutionary wave second, and the revolutionary information wave. The idea of "information warfare" is not new to the world; it has been around throughout history as the core meaning of "information warfare" is efficiently performing operations using technological means.

Cyberspace is the whole arena of different operations and wars, including cyberwar, electronic warfare, hacking, and information jamming. Information-based warfare and psychological warfare. Technology has played a vital role in the area of war with its evolution in obstruction weapons, destruction weapons, and weapons of communication (Nunes, 1999). The use of technology in the 1991 Gulf War inspired the PRC to reform the PLA to meet future battlefield requirements. Information warfare became a blue-eyed concept in the early '90s for China when the rest of the world struggled with the surge of civil war and interstate wars in the region. The takeaway points from the Gulf War for the PLA were that technology was the fundamental principle of modern war, not merely confined to tactical or operational levels. However, it was as crucial for the strategic objectives as it was for the other areas. It also became a milestone to develop the advanced technological system to conduct distant long-range attacks with precision for "quick resolution" and to use it for combined military operations (Mulvenon &

Yang, 1999, pp. 178–179). This phenomenon brought numerous changes in the PLA and a revolution in military affairs (RMA) in the past.

Recently, modernization under President Xi Jinping (Maizland, 2020) enabled the PRC to develop its C4ISR for "preparedness" and the "conduct" of the war. It enabled the PRC to develop modern instruments of war to fight the "old war" and to enhance itself for future warfare (Medeiros, Cliff, Crane, Mulvenon, 2005). Moreover, PRC has successfully prepared local planes by taking designs from different parts of the world and producing them with modern technologies with the trademark of the PRC. In other words, they actively participate in espionage activities (Mulvenon & Yang, 1999, p. 227). Not solely in the past, but the PRC in the Taiwan Straits and especially against the United States is actively involved in these cyber-espionage activities (FireEye, 2019, 01:00), referring to the concept of the "Thucydides trap," where one rising power challenges the pre-established power and gets into the business of war. It raises the question, "*Is cyberwar an act of war?*".

According to Lawrence Freedman, in response to the talk of information warfare, information warfare has a minor effect on the general public and the states compared to the religious fanatics and the terrorist groups and individuals who can explode anything, any time and anywhere (Rawnsley, 2005). On the other hand, the other school of thought labels it as an act of war, as the US government has mentioned, and besides, official troops are present within the forces of the world to counter such attacks. It might range from merely getting into the system to spying or getting involved in espionage. The NSA and the US cyber command talked about how fast, what these attacks were about, how serious they were, and how big they were (PBS News, 2018, "0:40" section).

Conclusion

For some, war is an enterprise; for others, it is an economic condition; for some, it is a chapter from the past; and for some, it is an art. With the evolution of industry and the advancement of technology the desire to change the nature of war has made scholars give a second thought to small conflicts as a new type of war. The term "new war" emerged at the end of the twentieth

century and the beginning of the twenty-first. It tried to outdate the existing principles and concept of war, while the other school of thought states that the term "war" itself has greater magnitude and dynamic, which doesn't require adjectives for its definition. For them, war may not be fought without an enemy and an objective, which is contradictory to the "new war." This paper tried to elucidate the terms "new" and "old" war and the use of technology in the old war. The "new war," according to Mary Kaldor, is different in its nature, tactics, and finances. The subject of the violence is mainly the public, as compared to the "old war," where it was mainly directed toward the armed forces. It tries to create political identities. Those identities, such as "Shia-Suni" identities, are created due to war and are not based solely on political ideologies.

New wars scholars say they want to draw attention to the laws and conventions that have become ineffective in fighting new wars. Scholars draw different analogies from economics and cyberspace to make it new. On the other hand, Hew Strachan and other scholars state that this is to eradicate the studies of Clausewitz and give a new direction to war. The principles of Clausewitz are still valid and applicable even in today's modern technology, and for that one has to study Clausewitz critically. The Trinity of Clausewitz elaborates on the principle of the state and its relation to cyberspace and cyber warfare. This also creates a statement here that "New Wars" are only "Old Wars" fought with the latest technology, and to understand it, a critical understanding of Clausewitz is required.

Muhammad Shahbaz

shahbazmuhamad@gmail.com

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Revival of the Iran Nuclear Deal under the Biden Administration

Introduction

The aim of this research is to analyze the progress of the Iran nuclear deal under the Biden Administration. The Middle Eastern region has been conflict-ridden for several decades. With regional actors such as Saudi Arabia, Israel, and Iran competing for dominance in the region, the Middle East is a region where power politics often take place. Several decades into the nuclear game, Iran has finally witnessed significant progress in its nuclear program. A nuclear Iran can alter the regional power status in the Middle Eastern region. It has severe implications in the region that can be detrimental to Western interests in the region.

To avoid these potential negative effects of a nuclear Iran, the Obama Administration struck a deal with Iran called the Joint Comprehensive Plan of Action (JCPOA) in 2015. The deal has been largely stranded after the Trump Administration. Currently, Biden has reached out to mend and better the deal than the 2015 deal.

The JCPOA is a tool for preventing various disastrous regional implications in the Middle East region. Scholars and analysts have talked about the implications for the region if the deal proves to be ineffective. Some analysts have discussed the impact the deal has had on Israel's foreign policy towards Iran after the 2015 Iran deal (Kaye, 2016). A nuclear Iran will just be one step closer to triggering a nuclear war between Israel and Iran which will result in various security dilemmas in the region. Scholars have also addressed the Saudi- Iranian regional rivalry and have talked about the potential outcome of the rivalry if the deal fails to deliver (Guzansky, 2015). A nuclear Iran can motivate regional rivals such as Saudi Arabia to develop its own nuclear program which can lead to a domino theory of weapons of mass destruction. Rich states like Saudi Arabia can also buy nuclear weapons from poorer states like Pakistan or North Korea as a response to safeguard their interests in the region from Iran. This will result in regional instability in the Middle

East. Moreover, considering that 31% of the world's oil comes from the Middle East, a nuclear war in Iran can alter the World Economy in a negative manner (Rapier, 2020).

On the other hand, experts have also analyzed the positives of the deal (Gass, 2018). Fitzpatrick (2015) has analyzed the deal and commends its effectiveness and strong verification process. He focuses on the key successes of the agreement while providing us with a better understanding of the deal under the Obama Administration. Sir Richard Dalton (2016), a senior member of the British diplomatic service noted that the deal was an outcome of profound diplomacy and predicted that it would sustain itself. Even though the deal didn't survive the Trump Administration, his connotations about the 2015 deal are key to negotiating a lasting deal under the Biden Administration.

Although scholars have discussed the 2015 Nuclear deal and its implications, very few have addressed it under the Biden Administration. This research attempts to answer the question- "*What are the implications of JCPOA under the Biden Administration?*" Considering the pace of Iranian nuclear development and the inability of the Biden Administration to conclude the negotiations with a finite outcome, the paper assumes that the ongoing negotiations will fail to produce a long-lasting solution to limit the Iranian nuclear program.

The paper has used primary and secondary resources to understand the past, present, and future of the Iran nuclear deal. Primary sources include News reports and statistical data from reputed think tanks, and secondary sources include journal articles.

The 2015 Iran Nuclear Deal

The Iran Nuclear Deal, also known as the Joint Comprehensive Plan of Action (JCPOA), was signed between Iran and several world powers, including the United States in July 2015. The deal stated that Iran agreed to dismantle its nuclear program to a certain extent and that it will allow more international inspections of its nuclear facilities in exchange for billions of dollars worth of sanctions relief. Advocates of the deal, including former President Barack Obama said that the deal would help to prevent the revival of Iran's nuclear weapons program and thereby limit

the rising tensions between Iran and its regional rivals, including Israel and Saudi Arabia (Robinson, 2021).

The deal was projected by the Obama Administration as a very good deal. Other senior administration officials have also repeatedly testified in the US House of Representatives and Senate in favor of the deal (Riechmann, 2015). Former Secretary of State John Kerry favored the deal and reasoned that if Iran did not sign the deal, then Iran would be free to pursue its nuclear program which would narrow the breakout time. Sanctions had proved ineffective in stopping Iran's nuclear program, and none could argue a better deal. There were several scholars that argued that it might not be a good deal, but certainly an 'acceptable deal' (Marcus, 2015).

However, there were several opposers to the deal. Israel was the strongest opposer; former Prime Minister Benjamin Netanyahu called it an anti-Israeli step that could lay on the line of survival of the country. Iran has openly threatened to destroy Israel, referring to Israel as a one-bomb nation. Israel considered the deal to be a reward for Iran instead of ensuring the complete disarmament of Israel's nuclear program (Greenberg, 2015).

Seasoned scholars have observed that Iran still has its regional hegemon ambitions, and he has noted that the JCPOA has made this ambition one step closer for Iran. The United States and EU are obliged to defend the JCPOA, which gave Iran more room to negotiate and use the threat of resuming its nuclear program as a bargaining chip to attain more sanctions relief (Petraeus and Jeffrey 2015). Through sanctions relief, the JCPOA has given Iran more freedom to pursue its regional policies. After a prolonged period of the inability of the United States to prevent Iran from attaining nuclear weapons permanently, even the United States admitted that there were loopholes in the agreement (Norell, 2015). Iran constantly threatened to resume its nuclear program by claiming that the US was breaching the JCPOA. This created a huge regional and international security dilemma. Overall, the Iran Nuclear Deal was perceived as ineffective and more detrimental than beneficial.

Why did Trump leave the deal?

Trump has been against the Iran Nuclear Deal ever since its initiation in 2015, calling it ‘the worst deal ever. He considered it a bad deal because it wasn’t permanent and would allow Iran to resume enriching some uranium after a decade and lift other restrictions after that (Berenson, 2018). Ever since he was a candidate for the presidency, he left no chance to call out the architects of the deal such as John Kerry and slam them for their weak attempts to contain Iran’s nuclear progress (Zurcher, 2018). His advocacy against the deal during the elections almost made the retrieval from the deal an agenda during his presidency. After his inauguration as the President, he was bound to act upon his words.

During the Trump presidency, Iranian repetitions of breaching the deal fuelled Trump’s decision to leave the deal. According to Trump’s senior administration officials and the information provided by the International Atomic Energy Agency (IAEA), Iran had breached the agreement in numerous ways. By 2017, Trump’s senior officials had identified that Iran had failed to fulfill its nuclear obligation:

- Iran exceeded the agreed limit on heavy water stocks.
- Iran exceeded the agreed limit on its centrifuge numbers.
- Iran restricted the IAEA’s access to inspect its nuclear facilities.
- Iran was not committing to the proper implementation of Section T, which restricts Iran from pursuing specific activities that could contribute to developing a nuclear weapon.

Further claims that do not include the provisions listed in the JCPOA that motivated Trump to leave the deal were:

- Iran was supposedly not meeting the ‘spirit of the deal.’
- Iran was pursuing its ballistic missile program despite UN Security Council prohibitions. (Acton and Blanc, 2017).

After facing immense pressure to stay in the deal from his European counterparts, the Trump Administration finally left the deal in 2018. After the deal was left stagnant, the Trump Administration was free to re-impose nuclear-related sanctions on Iran. Although this action received little political support from Democrats in the United States and the other five JCPOA signatories. Trump’s replacement of the Iran Nuclear deal was a multi-pronged pressure campaign to contain Iran, through Economic sanctions and Deterrence. The United States imposed 17 rounds

of Iran-related sanctions, targeting Iran-related individuals and entities. Trump aims to provide Iran with an ultimatum, whether to cease or persist in the policies that triggered the sanctions in the first place (Pompeo, 2018). In 2019, Trump announced new sanctions on Iran, cutting off all revenue from Iranian oil exports which is the main source of income for the country (Wong, 2019).

Scholars have advocated for Trump's decision to leave the deal, supporting the sanctions placed on Iran by Trump and even rooting for secondary sanctions on Iran for its ballistic missile tests, support for terrorism, and human rights abuses (Kroenig, 2018). On the other hand, the democrats in the United States criticized Trump over his reckless approach leading to the abandonment of the deal. Former Secretary of State, John Kerry defended the deal against Trump's pessimistic nature about the deal, stating that US relations with Iran were stable after the implementation of the deal- "There were no missile attacks on United States facilities. No ships were being detained or sabotaged in the Persian Gulf, there were no protesters breaching our embassy in Baghdad. Iraq welcomed our presence fighting ISIS- John Kerry" (LaChance, 2020).

Trump's decision to leave the deal has also resulted in Iranian leaders taking a firm stance and defending their positions. Former President of Iran, Hassan Rouhani made his stance clear about the outcome of the US leaving the deal-"If the US exits the JCPOA, it will soon regret it" (EFE News Service, 2018). Rouhani opposed Trump's proposal to add additional conditions to the deal that would limit Iran's ballistic missile program. With the end of the Trump Administration, the Iran nuclear issue has been idle. The current President Biden representing the democrat party has been handed over the issue under complex conditions. His approach to the deal has been completely the opposite of that of Trump. US's foreign policy towards Iran under the Biden Administration is going to determine whether the Iran Nuclear Deal will persist or not.

Biden's approach to the Iran Nuclear Deal

Biden's approach to the Iranian Nuclear deal was predictable considering Biden's involvement in the 2015 Nuclear deal that was signed under the Obama Administration. His approach towards Iran at the beginning of his presidency was mainly focused on repairing the bilateral relations between the USA and Iran. However, as Biden tries to renegotiate the Iran

Nuclear deal to mend the flaws in the 2015 agreement, the current President of Iran, Ebrahim Raisi has taken a strong stance during the negotiations. Raisi showed his interest in bringing back the 2015 deal, however, he has been straightforward about Iran's non-negotiability of its ballistic missile program (Naji, 2021). Raisi also does not intend to move forward with the negotiations unless the sanctions are removed. Raisi's attempts at hard lining the deal has been successful in pressuring Joe Biden to a certain extent.

In February 2022, Biden dropped sanctions on Iran's civilian nuclear program in hopes of reconciliation and better facilitation of the negotiations regarding the nuclear deal. Nevertheless, Iran remained non-responsive and continued to stall the negotiations (Gefen, 2022). The year-long Vienna talks have also failed to produce a mutually beneficial deal.

According to International Atomic Energy Agency inspectors, Iran's stockpile of uranium enriched up to 60% purity rose more than fourth fifths in the last three months (Tirone, 2022). The steady increase in the stockpile of uranium enrichment indicates the closing window of opportunity for Biden to strike a deal with Iran. David Albright, the founder of the Institute for Science and International Security, said that Iran already has the capability to produce at least 45 kg of highly enriched uranium at 90%. This is enough weapons-grade fuel to produce a nuclear bomb in short order. He estimates that Iran may be able to conduct a nuclear test in six months. (Lynch, 2022).

Moreover, Chinese investment in Iran can undermine the US influence during the negotiations giving more leverage to Iran. Although the situation is dire, the Biden Administration promises a more consistent foreign policy approach than its predecessor. It seems certain that both the United States and Iran desire to return to some sort of arrangement that offers US sanctions relief for Iranian nuclear constraints (O'TOOLE, 2021). With tensions running high, Biden's approach to the deal has been criticized by international actors, republicans, and even democrats of the United States (New York Post, 2022).

Some Analysts have come to the conclusion that a new nuclear deal is not going to stop Iranian aggression. Contrary to pro-JCPOA advocates, some claim that there has been evidence that shows an increase in Iranian aggression after the 2015 JCPOA deal. The Jewish Institute for National Security for America (JINSA) collected data on the major forms of Iran's regional aggression from January 2015, before the JCPOA was adopted to the present (Misztal and Cicurel, 2022a). The data reveals that, although Iran was not directly attacking U.S. troops in Iraq between

2012 and 2018, Iran was engaged in significant regional aggression including against American personnel during this period. This decreases the general public popularity of wanting a new nuclear deal with Iran.

After months of negotiations, the Biden Administration has given up hopes of creating a new deal that is long and strong than its predecessor. The Biden Administration now focuses on short term goals and claim that at least the deal will slow Iran's attack on US troops (Misztal and Cicurel, 2022b).

Conclusion

The Biden Administration has adopted the Obama Administration's approach towards the Iran nuclear deal. Talks between US and Iranian leaders have so far produced nothing. Although there have been comments from both sides stating that a new deal is close, there is no actual substantive evidence to support these comments. Both sides have stalled the negotiations, resulting in a dragged-out negotiation process. Trump's foreign policy towards Iran was inconsistent. His withdrawal from the JCPOA was an important lesson for Iranian leaders. While negotiating for a new deal, Raisi and his government may fear the case of abandonment again by the Biden Administration or any other administration after Biden.

Moreover, Iran has adopted a look East policy. With a greater flow of Chinese and Indian investments, reconciliation with the West may not be a priority for the Raisi government. This could translate to a lesser enthusiasm to join the deal. On the other hand, at least a partial waiver of sanctions is needed in order for Iran to have fully flourished relations with regional powers such as China and India.

Furthermore, negotiations for a new deal come at a time when Iran already has significant achievements in its nuclear program as noted by the IAEA. The possibility of Iran conducting its first nuclear test is not far. Raisi's decision regarding re-joining the JCPOA will depend on the progress of Iran's nuclear program in the next couple of months. With the United States occupied in other regions of the world, Iran has an ideal amount of time to develop its nuclear program while simultaneously pursuing negotiations for sanctions relief.

The Biden Administration is under the pressure of striking a deal before the window of opportunity runs out. Staying in the negotiations will result in an asymmetrical agreement that will be more in favor for Iran. A renewed deal will only prolong the implementation of Iran's nuclear program rather than prevent it. A new deal seems ideal only if the United States uses the time it has bought itself to strengthen its alliances in the region and collectively focus on developing countermeasures to contain the Iranian threat. However, with the US presence needed in almost every major scale modern-day conflict, the chances of excessive US involvement in Iran seem limited.

Adithyan Nair

Adithyan@ciris.info

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Outer Space Security: An exploration of the U.S. Space Force's area of operations

Abstract

Outer space was an uncontested domain after the conclusion of the Cold War and remained so for many years. However, in recent years, state and non-state actors have begun venturing into outer space. This has resulted in outer space shifting from a domain dominated by the United States to a domain that is congested with activity, competition for space services, and contested by near-peer adversaries. Whom of which are creating counter-space capabilities. State actors such as Russia and China are near-peer adversaries that are emerging into the outer space domain. Thus, a threat to the national security of the United States. This has led to outer space phasing from an uncontested domain to a contested one. The current bureaucratic setup was deemed inadequate to sufficiently compete with near-peer adversaries. This led Congress to legislate the creation of the U.S Space Force. This paper will explore the area of operations that the U.S Space Force is responsible for. This project will aim to identify the American perceived threats that exist in outer space. It will also explore what outer space security means. To analyze what is in space that a state actor wants to be secure from.

Introduction

Outer space security pertains to the activity in Earth's orbit. It is a topic that does receive its fair share of debate and discussion. However, it is seldom defined. This chapter will be dedicated to exploring the different existing definitions of outer space security and how they blend. Traditionally, state actors are the main actors in space and exploit them for military interests as a primary reason, with civilian interests as secondary. Security has always been intrinsic to state behavior. In that, they are always in the pursuit of self-preservation.

On the 20th of December 2019, the United States created a Space Force dedicated to military operations in outer space. This begs the question, what are the threats in outer space? How do they present a security threat to the state? This chapter will attempt to explore what different security issues there are and how they relate to defining outer space security. In recent years, more state actors have begun to venture out into space. Non-state actors, such as private enterprises, have also begun to conduct commercial space activity. Space is becoming more congested. Congestion will either lead to increased competition or cooperation in space.

The first section of this chapter will briefly discuss current definitions of outer space security and how they blend. The second section will discuss how outer space security can mean security from space. As in securing humanity's existence and access to space from natural and human phenomena. The third section will narrow the definition of outer space security as security for space assets from human and natural threats. The fourth section shall explore the third theme of outer space security by defining it as security from other human actors or military security.

Definitions

There are three identified themes identified by Mayence when it comes to defining outer space security. Mayence states that these are very different issues that are interconnected with each other. Outer space security is all three of these definitions (Robinson et al., 2010: p. 35).

1. Security from outer space: how to protect human life and Earth's environment against natural threats and risks from outer space.
2. Security in outer space: how to protect space assets and systems against natural and/or human threats or risks and to ensure sustainable development of space activities
3. Outer space for security: the use of space systems for security and defence purposes (Robinson et al., 2010: p. 35)

These different definitions also mix into each other in certain aspects. The first definition is environmental. There are human-made threats that fit into this definition. Space debris in Earth's

orbit will be inserted into this theme. The second definition somewhat trickles into the other definitions as it identifies threats from human and natural threats. However, it focuses on security for systems and satellites in orbit of Earth. The third definition is centred around military use but also delves into the second definition since satellite defence is included.

Another aspect that should be defined is orbit. The contemporary environment for outer space security is the region that begins where Earth's atmosphere ends and space begins. This is called the Kármán line (Córdoba, 2011). This border is about 100 KM from the Earth's Surface. This region extends across space and ends at about 40,000 KM. This vast area is where most human satellites and systems inhabit.

Is it security for space assets?

The cosmos is dangerous. There are things within it that could present an existential threat to humanity and the Earth. If not existential, then heavily devastating. Outer space security can be defined as security from space. A framework to secure humanity from phenomena such as asteroids and solar flares. When someone refers to outer space security, they could mean it in an anti-extinction sense. There are two avenues to think about when it comes to securing humanity's safety from outer space. They are space weather (solar flares/storms or cosmic radiation) and space objects (debris or asteroids).

Space weather is defined by NASA as "*conditions on the sun, in the solar wind, and within Earth's magnetosphere, ionosphere and thermosphere that can influence the performance and reliability of space-borne and ground-based technological systems and can endanger human life or health*" (Zell, 2015). Space weather poses a security threat to humanity and its satellites can come from the sun and beyond the solar system. Threats that come from the sun are solar storms. Coronal mass ejection (CME) is a solar storm that does pose a security issue. A CME is an ejection of large clouds of plasma and magnetic fields that may stream out into the surrounding solar system (Garner, 2015). There is a chance of a CME impacting the Earth. A CME impacting the Earth will not be an extinction-level event but can cause considerable disruption to satellites in orbit (Pelton, 2013). A CME could also adversely affect human activity on the ground such as air traffic, computer networks, and electrical grids (Pelton, 2013:

pp. 45, 46). Damage from a CME could interrupt commercial and government activities that may result in billions of pounds of repairs to assets on the ground and space. It would also affect the global and local economies as well because of humanity's heavy reliance on outer space assets.

Ultraviolet and x-ray radiation from beyond the solar system and the sun poses a danger to astronauts and to the Earth's biosphere. Radiation exposure to astronauts in orbit is higher than to the rest of humanity that is on Earth. To mitigate this issue, radiation levels of astronauts in orbits are closely monitored (Pelton, 2013: p.51). This also limits the amount of time they can be outside of their vehicles in a suit. Radiation can also affect life on Earth by causing genetic mutations within the fauna and flora (Pelton, 2013: p. 52). It can also cause skin cancer for humans (Pelton, 2013: p. 52). The Earth's ozone layer prevents the aforementioned from happening on a mass scale (Pelton, 2013: p. 52). However, manufactured chemicals are depleting the ozone layer (Nunez, 2019). This could be mitigated by reducing chemical production.

Space objects such as orbital debris present a threat to human space activity. Space debris in Earth's orbit is a security issue because it can damage satellites, space vehicles, and astronauts. There is an estimated 34,000 space debris larger than 10 cm, 900,000 objects between 1 and 10 cm, 128 million objects between 1 mm to 1 cm (European Space Agency, 2019). This debris is not just floating around in orbit. They move at high velocities, around 18000 MPH or 29000 KPH (NASA, 2011). Imagine all that debris moving at such a high velocity and consider that 29,000 KPH is just the average speed. Some debris are moving even much faster. With that kind of speed, an object as small as a paint fleck could cause some serious damage. Take for example, in 2018, the International Space Station (ISS) was impacted on a window by a small piece of space junk. It created a 2 mm-sized hole which was subsequently plugged (Knapton, 2018). Currently, the ISS must periodically change its orbital trajectory in order to avoid colliding with orbital debris (Pelton, 2013: p. 22). There are no methods to physically clean up the orbital debris other than waiting for them to slowly descend into Earth's Atmosphere. All that can be done presently is to track the debris and reduce the creation of more debris.

Asteroids possess the capability to cause an extinction-level event if one large enough impacts the Earth. An extinction-level event is where the majority of life on Earth is extinguished. Presently, there are only theoretical plans to deflect or counter an incoming asteroid. Such as bombing an asteroid into small enough fragments so that it is no longer a threat

or simply shooting a missile at one (Pelton, 2013: p. 63). The most that is being done right now is tracking space objects in the solar system.

Is it security for space assets?

Outer space can be utilized to secure the well-being and safety of humans on Earth. Satellites in Earth's orbit can be and are used to look out for events that can cause considerable damage to humanity. Outer space security can be defined as security for satellites in space. Since humanity has grown to become heavily reliant on satellites for day-to-day activity, it would be prudent to invest in more durable satellites. They need to be able to sustain potential damage from human and non-human threats.

Satellite systems can be digitally broken into or hacked. Weather and GPS systems can be spoofed to overload an electric grid, disrupt traffic or to misinform a weather phenomenon (Schrogl et al., 2015). They could also shut down a satellite system or turn it into a kinetic weapon. These possibilities partly turn this into a cyber security issue. This is considered when it comes to maintaining security for space assets. The United States Air Force invited hackers to break into one of their systems at a conference (Whittaker, 2020). Within two days, a team of hackers discovered several vulnerabilities that could have resulted catastrophic damage if it was in a combat situation (Whittaker, 2020). Not only can satellites be hacked. They can also be jammed or outright destroyed by a kinetic kill vehicle, which is a missile without an explosive warhead.

Orbital space debris can also disable or destroy a satellite. The U.S Air force must constantly monitor space debris in so that a piece doesn't collide with a satellite. When debris does end up on the course to collide with a satellite. The satellite itself uses its onboard thrusters to maneuver out of the way of the incoming debris (Grosselin, 2020: p. 9).

The Global Positioning Satellite system is a network of satellites that provides navigation and time data for users on Earth (U.S Government, 2020). It is owned by the United States government and is operated by the United States Air Force (U.S Government, 2020). It is heavily relied upon, especially in the West. The loss of the GPS system would affect most of human

activity on the ground and could affect human security. Drivers on the road would be lost without it and would cause traffic jams. Airplane travel would also have traffic issues. Communications and the internet are also reliant on the GPS system and would be affected as well. Emergency services that are reliant on GPS systems would not be able to respond to crisis situations on time because they would be deprived of navigation and communication capabilities. Essentially, the loss of the GPS system would cause severe damage to human activities that are heavily reliant on it (Davenport and Ganske, 2019).

Satellites are also used to monitor the environment on Earth. Weather satellites are used to identify and monitor severe weather such as a hurricane or a blizzard. Identifying severe storms can warn communities of what is incoming and can give them a head start on preparing for life-threatening effects. There are also observation satellites that are utilized for disaster management. They can be used to benefit emergency services, governments, and environmental organizations (Earth-i, 2020) (Pisano, 2006). High-resolution images are often the only way to survey the damage wrought after a disaster such as a wildfire, flood, or tsunami (Earth-i, 2020) (Witze, 2016) (Duffy, 2018). They can also be used to combat an ongoing disaster such as an active wildfire. The path of a wildfire can be tracked and predicted. This provides intelligence on where to apply water or fire depressants. It also serves an early warning system to communities that may be in its path, providing additional time to evacuate the area (Earth-i, 2020) (Duffy, 2018). These observation satellites can be used to supplement authorities and organizations by providing topographical intelligence in planning for a natural disaster or responding to one (Earth-i, 2020). If any of these satellites were to be rendered inoperable by an external force, then users on the ground would be deprived of the capability to warn of inclement weather, to plan for disasters, or to react to disasters.

Humanity has become intrinsically reliant on outer space systems. If one of them were to fail or be hacked, the consequences could vary from a nuisance to a catastrophe. Outer space security can be defined as satellite security. There are natural threats such as a CME from the sun. One of those can zap or disable any of the satellites in orbit. There are human-made threats as well. Space debris could damage a space asset. They can also be hacked by terrorists. There are many ways to protect space assets. Turn all of them off when a solar storm hits, a stronger

firewall, or simply move them out of the way of incoming debris. This all revolves around the theme of satellite security.

Is it security from other actors?

Outer space security can also be defined under a military context. It can mean security from other actors on Earth. When humanity first started venturing out into space in the 20th century, the only nations that possessed military capabilities in space were the Soviet Union and the United States. Towards the end of the century, the Soviet Union dissolved and left the U.S as the sole remaining space power. However, as time progressed into the 21st century more and more actors began venturing into outer space. China already has satellites in orbit and are developing additional military and civilian space technologies to compete with other actors (Costello and McCreynolds, 2018). India is also venturing into space. Russia is slowly re-emerging as a space power. The European Union is beginning and developing their own space operations as well. Not all space participants are state actors either, non-state actors have also begun exiting into outer space. Private enterprises such as SpaceX and Blue Origin are developing and utilizing space technologies for commercial reasons. As space slowly becomes more congested with activity from different actors, it also becomes more contested. Leading to an increase in competition for outer space. There are two themes to think about when it comes to military space security. The first is to defend assets in space. The second is to utilize satellites to support operations on the ground.

The first theme is defending satellites from other actors. State actors possess several capabilities to attack assets in outer space. A cyber-attack, an attack from the ground, or an attack from another satellite in space. A cyber-attack can shut down or steal control of another satellite. From the ground, an actor can use lasers, missiles, or a jammer. A satellite in space can be equipped to attack another. Counter space capabilities will be discussed in further detail in the next chapter. Alternatively, diplomacy can be used to defend outer space assets. The 1967 Outer Space Treaty prohibits the stationing of Weapons of Mass destruction (United Nations, 1967). Another example is that the Partial Test Ban Treaty bans the testing of Nuclear weapons in outer space (United Nations, 1963). Although, there are no treaties banning the use or stationing of

conventional weapons in space. Currently, there are no conventional weapons in outer space. Presently, satellite defense from other actors is poor. Poor space defense in conjunction with more space actors exiting into space as led to a renewed interest in military space security.

The second theme is utilizing satellites to supplement terrestrial operations. There are three main methods satellites are used to support military operations. The first is the intelligence, surveillance, and reconnaissance (ISR) method. ISR satellites provide data on military activity, signals intelligence, and as an early warning system for missiles (Defense Intelligence Agency, 2019: p. 8). The second method is satellite communications (SATCOM). SATCOM allows military forces to connect with each other from around the world and with very little time delay. American commanders in the Middle East can relay information to the Pentagon for assessment or to receive new objectives. SATCOM also allows complex military operations to function efficiently (Sheehan, 2015: p. 12). An attack on SATCOM systems would render the U.S military blind (Sheehan, 2015: p. 12). The third method is Positioning, Navigation, and Timing (PNT). PNT provides information for troops on Earth or in Earth's atmosphere their precise location (Defense Intelligence Agency, 2019: p. 8). It is also relied upon to deliver precision-guided bombs and artillery strikes. These three methods are intrinsic to the U.S and its maintenance of remaining a superpower.

Outer space security can be defined as military security from other actors. Such as near-peer adversaries such as China or Russia. Satellites are used to assist the military in nearly every operation and activity. Almost every major military power has grown reliant on outer space, especially the U.S. Attacking space assets belonging to a major power like the U.S would cripple them. Not only would the U.S would be crippled militarily, but in the civilian sector as well. As stated in previous sections, the economy and society are intertwined with outer space systems. The U.S or any other actor that depends on American space systems would be broadly blind in civilian sectors as well as the military. After the Cold War, the U.S did not have much interest in satellite defense because outer space was not being contested at the time. Now that China and India are emerging as a space power along with Russia re-emerging as one, the U.S renewed has their focus on outer space in a military framework by creating their own space force.

Conclusion

Outer space security can and is defined as security in space, from space, and utilizing space for security. These definitions can be used separately or together. Security in outer space is themed to securing satellites and systems in outer space. Security from outer space pertains to securing humanity and Earth from natural phenomena in the cosmos. While outer space for security is military centric. This definition restricts itself to focusing on human threats. In some respects, the definitions can trickle into each other's spectrum. While two themes focus on either human threats or natural phenomena that can be a threat, the third looks at both kinds of threats but focuses on space asset defense.

More actors, state and non-state alike, have begun venturing out into outer space. The increased congestion will lead to more competition and cooperation. It is likely that there will be cooperation between all actors when trying to secure humanity and Earth from outer space as that stopping an existential or crippling threat would be in the best interests of all actors. Limiting the creation of space debris and cleaning up space debris will likely foster more cooperation. As that all interested actors want access to outer space. Too much space debris would result in what is called Kessler syndrome. It when there is so much debris in Earth's orbit that it renders outer space activities highly difficult or impossible.

With the three definitions of outer space security laid out, which one is the U.S Space Force supposed to focus on? It is certainly responsible for the military definition due to it being a military organisation. However, does it also have to focus on the other definitions as well or is it the responsibility some other space organization?

Erick Johnson

ErickJohnson03@gmail.com

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