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## CANADIAN ARCTIC SOVEREIGNTY: A CASE FOR A ROBUST AIR COMPONENT CAPABILITY

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**JCSP 40**

***Exercise Solo Flight***

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EXERCISE *SOLO FLIGHT* – EXERCICE *SOLO FLIGHT*

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## CANADIAN ARCTIC SOVEREIGNTY: A CASE FOR A ROBUST AIR COMPONENT CAPABILITY

Since Confederation in 1867, Canada has enjoyed a relatively peaceful existence. Buffered by oceans on two sides and a strong ally to the south, Canadians have historically been well protected. Within this relatively safe environment, Canada has thrived. Rich in resources and governed by a political body that has done well to set the conditions for economic prosperity, Canada has consistently ranked within the top-ten on the United Nations' (UN) Human Development Index.<sup>1</sup> But unfortunately for Canadians the old world that enabled growth and prosperity is rapidly giving way to a new, much smaller one in which Canada's historic geopolitical fortress is less secure. Instability in distant nations increasingly ripples across the globe and the brutal hand of terrorism has reached Canadian soil; rapidly evolving technology challenges traditional power hegemonies in an increasingly multipolar world<sup>2</sup>; and a warming global climate is changing the very geography of our planet. Interestingly, it is in the Arctic region of the world where the confluence of these various evolutionary trajectories is shaking the foundation of the fourth wall of the Canadian stronghold. It is a region where Canada claims significant areas as sovereign territory and one that may hold up to 30% of the world's undiscovered oil and gas.<sup>3</sup> However, tenuous control of this region has stretched

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<sup>1</sup> United Nations, "Human Development Report 2014," accessed 20 May 2015, <http://hdr.undp.org/sites/default/files/hdr14-report-en-1.pdf>.

<sup>2</sup> Yilmaz, Sait, "State, Power and Hegemony," in *International Journal of Business and Social Science* Vol. 1 No. 3, (December, 2010): 202.

<sup>3</sup> Ernst & Young, "Arctic Oil and Gas," accessed 25 May 2015, [http://www.ey.com/Publication/vwLUAssets/Arctic\\_oil\\_and\\_gas/\\$FILE/Arctic\\_oil\\_and\\_gas.pdf](http://www.ey.com/Publication/vwLUAssets/Arctic_oil_and_gas/$FILE/Arctic_oil_and_gas.pdf)

Canadian sovereign claims to the resource-rich Arctic<sup>4</sup> as Canada struggles to keep pace in the race for controlling the Arctic.<sup>5</sup>

In this complex and rapidly evolving new geopolitical reality, the Canadian Armed Forces (CAF) has carried out its duty to protect the Nation. Throughout the history of Arctic military control, the Royal Canadian Air Force (RCAF) has contributed a significant capability in the Arctic. But the future is not certain. As the primary capability enabler for North American Air Defence (NORAD), Canadian CF-18 fighter jets have now been flying for over thirty years and plans to fly them for another ten years will stretch their waning capability further.<sup>6</sup> CP-140 Aurora long-range patrol aircraft are already 35 years old and ageing quickly, and the northern Distant Early Warning System (DEWS) radar line is becoming obsolete. It shall be argued that failure to invest immediately in a robust and modern air component capability will lead to real and significant risk to Canadian national sovereignty. First, an examination of sovereignty in international law will establish that control *capability* is required in order to enable a State's sovereign authority towards the achievement of desired political outcomes. The second section will discuss how Canada has historically sought to maintain its position in the Arctic through alliances such as NORAD, through membership in supranational organizations such as the Arctic Council and the United Nations (UN), and through traditional layered military capability in which the air component plays a major role. Finally, it will be demonstrated that token efforts are no longer sufficient within the

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<sup>4</sup> Rob Huebert, "Canadian Arctic Sovereignty and Security in a Transforming Circumpolar World," in *Foreign Policy for Canada's Tomorrow No. 4*, (Canadian International Council: 2009): i.

<sup>5</sup> James Kraska, *Arctic Security in an Age of Climate Change*, (Cambridge: Cambridge University Press, 2011), xxi.

<sup>6</sup> The original life expectancy of the CF-18 Hornets was 2003, and recent activity has begun to stretch the life expectancy further to 2025 - more than 40 years after initial introduction into the RCAF.

context of the emergent geopolitical security environment, and that Canada requires a modern air component capability in order to effectively control sovereign Arctic territory for the foreseeable future.

## **SOVEREIGNTY, CAPABILITY AND INTERNATIONAL LAW**

To begin, it is necessary to understand a brief history of Sovereignty and its place in international law. In January of 1658, the Peace of Westphalia ended the Thirty Years' War in the Holy Roman Empire and ended one of the most violent periods of warfare in Europe. But not only did this series of treaties end conflict, they introduced the idea that a State should have an inherent right to govern its territory and people the way it saw fit. The idea of State sovereignty was born. After Westphalia, this foundational concept of State sovereignty gradually grew stronger as nations embraced the ideas of strict territorial integrity and non-intervention in the affairs of other States.<sup>7</sup> From this core concept, several emergent aspects would emerge to help shape our modern ideas surrounding sovereignty. For example, in the Westphalian model, "natural resources were regarded as legitimately falling under the sovereign authority of states on the condition that whoever possessed a resource, and exercised actual control over it, secured a legal title."<sup>8</sup> So it is today. Also, the concept of control is introduced, not as a precondition for sovereignty, but as an *effective enabler*. As we move into the present and look to the future, contemporary sovereignty ideas are being modified by a changing international landscape that must consider the increasing role that non-governmental organizations (NGOs) play in international politics, the rising power of supranational institutions such

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<sup>7</sup> Ioana Cismas, "Secession in Theory and Practice: The Case of Kosovo and Beyond," in *Goettingen Journal of International Law* 2 (2010): 548.

<sup>8</sup> David Held, "The Changing Structure of International Law: Sovereignty Transformed," in *The Global Transformations Reader 2nd Ed*, ed. David Held and Anthony McGrew (Cambridge: Polity Press, 2003), 170.

as the UN, and even terrorist organizations. It has been suggested that these global forces work to diminish traditional State sovereignty<sup>9</sup> but there are also strong claims remain that traditional power politics still lie at the foundation of international relations and form the core of sovereignty law.<sup>10</sup> In order to explore these dynamics, a more intricate model of sovereignty must be introduced; one that extends beyond theoretical constructs to inform practical discussion within the context of effective political outcomes.

It seems only natural that in order to claim sovereign jurisdiction over an area, a nation must concordantly exercise some form of control over it. But the reality is more complex. For example, it has been suggested that “sovereignty is the right, not the ability, to determine one's policies. Like any right it may or may not be effectively enjoyed, infringed, violated, or ignored.”<sup>11</sup> It follows that legal sovereignty does not require control *per se*, but sovereignty that seeks to achieve some effective outcome does. It is this idea that Jack Donnely expounds upon in a straightforward model that shall be used to highlight that Canada requires modern capability to add the element of control and thereby achieve effective sovereign political outcomes. In this model, Donnely plots *capability* against *authority* in order to categorize four conditions in which a State may find itself.<sup>12</sup> With supreme authority, with high capability to control various outcomes a State is afforded *Effective Sovereign Rule*. As capability slides downwards, a State is reduced to having formal sovereignty with no effective means to influence any outcomes. On the opposing side, a State with little or no formal sovereign authority but with high

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<sup>9</sup> *Ibid.*, 174.

<sup>10</sup> David Held, “Law of States, Law of Peoples: Three Models of Sovereignty,” in *Legal Theory* Vol. 8, (Feb, 2002): 45.

<sup>11</sup> Jack Donnely, “State Sovereignty and Human Rights,” Conference Papers - International Studies Association, (August, 2005): 2-3.

<sup>12</sup> Jack Donnely, 3

capability to control and influence outcomes may achieve *Domination*, much as a schoolyard bully steals his lunch money. Of course on the extreme low ends of authority and capability, sovereignty dissolves as a State suffers *Material and Normative Weakness*. Donnelly elucidates the natural link between authority and control by highlighting “if the link between authority and control is severed completely, authority may be under-mined or lost.”<sup>13</sup> Figure 1 below is a graphical depiction of Donnelly’s model.

**Figure 1: Authority, Capabilities, and Sovereign Power**

		AUTHORITY	
		Supreme	None
CAPABILITIES	High	Effective Sovereign Rule	Domination
	Low	Formal Sovereignty	(Material and Normative) Weakness

The citizens of a nation, and its government, of course should only be concerned with *effective* sovereignty as anything less undermines their safety and - at least in Canada - a very acceptable status quo. An illustrative historic example occurred on 9 March 1995 when an international disagreement about fishery rights came abruptly to a climax. On that day, a Canadian Fisheries Patrol vessel fired a .50 calibre round over a fleeing Spanish vessel in international waters, forcing it to surrender. Acting on direction

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<sup>13</sup> *Ibid.*, 3.

from the Prime Minister, the boarding and capture of the Spanish vessel was in response to purported illegal fishing near the Canadian Exclusive Economic Zone (EEZ). The threat of military sanctions soon followed as Spain prepared to send a naval combatant group in response to the “illegal” capture of one of its fishing vessels. Canadian warships and fighter aircraft were readied as a deterrent against aggression, and Spain eventually backed down in favour of a diplomatic solution. Protecting Canadian sovereignty is often a complex and demanding undertaking, and such was the case with the illegal<sup>14</sup> fishing by the *Estai*. The Canadian capability forced the Spanish to recognize a Canadian sovereign claim and the result was an effective resolution to the problem. But the changing climate has produced conditions in the North more rife with potential for international friction.

## **CANADIAN CAPABILITY IN THE ARCTIC**

In the Arctic, sea ice has decreased by a mean average of over 13% per decade since 1980.<sup>15</sup> The Arctic is now more accessible than ever, and its plentiful natural resources are attracting the attention of the world’s nations. In 2007, the Russian *Arktika 2007* naval expedition surprised the international community by planting a Russian flag in the Arctic seabed near the North Pole. Canadians did not miss this clear signal that Russia intended to actively pursue its territorial claims in the North. It is perhaps no coincidence that since 2007 NORAD intercepts of Russian strategic bomber and fighter aircraft near North American airspace have increased to levels nearing the height of the

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<sup>14</sup> It should be noted that despite over fifty documented EEZ infractions by European Union (EU) vessels, the *Estai* was fishing in international waters albeit with dragnets deemed illegal by Canadian standards.

<sup>15</sup> Perovich et al., “Sea Ice,” Arctic Report Card: Update for 2014, National Oceanic and Atmospheric Administration, accessed 15 May 2015, [http://www.arctic.noaa.gov/reportcard/sea\\_ice.html](http://www.arctic.noaa.gov/reportcard/sea_ice.html)



Cold War.<sup>16</sup> But in the Arctic, Canada has both the authority and the capability to exercise sovereignty in defence against competing claims.

First, it has been recognized that a nation's citizens living within prescribed geographical boundaries provide a legal foundation for a State's claims to sovereignty.<sup>17</sup> In the deep Canadian Arctic numerous and diverse Inuit communities help to provide this justification for Canadian claims. Furthermore, Canada has leveraged various supranational organizations that work to legitimize claims through political channels. The formation of the Arctic Council, although recently threatened by geopolitical instability, has sought internationally recognized solutions to disputes such as extended EEZ claims and pollution. Additionally, the UN Convention on the Law of the Sea (UNCLOS) has provided yet another internationally recognized mechanism for the systematization of Arctic maritime claims. Under the UNCLOS agreements, Canada has specific authority to control shipping access within its Arctic territory and various maritime claims are catalogued. Finally, the bi-lateral agreements that bind Canada and the United States (US) in NORAD provide a robust authority that serves two main purposes: ensuring a robust and capable defence of North America, and providing a mechanism to clearly demark several important boundaries, including delineation of geographical, airspace, and command boundaries. It has been said that "the true menace to Canadian sovereignty is not collaboration with the United States in defence of the continent; rather, it is an abstention from collaboration."<sup>18</sup> The NORAD agreements work to solidify the Canadian

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<sup>16</sup> Barbara Starr, "US Admiral Raises Alarm Over Russian Military Threat," *CNN Politics*, 13 March 2015, accessed 25 May 2015, <http://www.cnn.com/2015/03/12/politics/us-russia-military-threat-alarm-norad/>

<sup>17</sup> Jack Donnelly, 4.

<sup>18</sup> Phillip Lagassé, "Northern Command and the Evolution of Canada-US Relations," in *Canadian Military Journal* (Spring 2003): 21.

position in law through cooperation with a strong ally, adding both authority and the additional capability of the US in support of sovereignty.

As for capability, military personnel also populate a thin but present northern CAF infrastructure. The Canadian Army (CA) has the 1<sup>st</sup> Canadian Ranger Patrol Group to “support Canadian sovereignty”<sup>19</sup> in Canada’s northern regions and Joint Task Force (JTF) North provides a CA central nervous system for execution of Ranger operations in support of northern objectives. The Royal Canadian Navy (RCN) is in construction of a refuelling port at Nanisivik and is currently under construction of five Arctic Offshore Patrol (AOPS) ships that will seek to patrol the northern maritime seaways and aid in logistical operations. Finally, the RCAF frequently re-supplies distant northern military outposts such as the Canadian Forces Station (CFS) Alert facility where valuable signals intelligence is collected alongside civilian environmental scientific research. In all of these cases, capability incrementally legitimizes the authority given under the various international legal constructs to enable effective sovereign rule of the Canadian Arctic region. Without these capabilities, sovereignty would be useful only insofar as it was to Crimea when Russian troops began to claim it for their own.

## **UNCERTAINTY AND THE VALUE OF AIR COMPONENT CAPABILITY**

In an increasingly unpredictable geopolitical landscape, security threats are numerous and quick to materialize<sup>20</sup> and the Arctic is not immune to emergent dangers.

Although it recently failed in testing, North Korea’s Taepodong-2 nuclear

Intercontinental Ballistic Missile (ICBM) is estimated to have a maximum range

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<sup>19</sup> Government of Canada, “Canadian Army: 1<sup>st</sup> Canadian Ranger Patrol Group,” accessed 22 May 2015, <http://www.army-armee.forces.gc.ca/en/1-crpg/index.page>

<sup>20</sup> Government of Canada, “The Future Security Environment 2008-2030,” (Winnipeg: 17 Wing Winnipeg Publishing Office, 2010): 9.

sufficient to reach North America via the Arctic and its new KN-08 prototype under development may reach even further.<sup>21</sup> A traditionally belligerent nation, the threat of North Korean collapse has warranted significant planning efforts, and NORAD has deemed it prudent to frequently monitor North Korean ICBM test launches.<sup>22</sup> Similarly, Russian TU-95 Bear Bomber are capable of carrying AS-15 Kent nuclear cruise missiles with an estimated 2,800 kilometer range and new Kh-101/102 stealthy variants may reach up to 3,500 kilometers or more.<sup>23</sup> The aggressive Russian rhetoric in the wake of both the Georgian and ongoing Ukrainian crises have left little positive hope that their current antisocial trajectory will be altered in the near future. Finally, few Canadians will forget the acts of terror committed by the so-called Islamic State (IS) on sovereign soil that resulted in rapid RCAF international military deployment in response. In these few examples amongst many, history has demonstrated that there will be little, if any, warning prior to aggression and that Canada must be prepared for aggressive actions that may threaten sovereignty.

If one could consider the present geopolitical situation tumultuous, there is little hope that the future may be less so. Vladimir Putin has demonstrated clearly to the world that when compared with Russian strategic objectives, State sovereignty means little. Georgia and Ukraine may currently attest to this fact, and failure to acknowledge and plan for at least the possibility of a Russian threat in the Arctic would be foolish for those

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<sup>21</sup> Richard Weitz, "The Evolving North Korean Missile Threat," accessed 25 May 2015, <http://www.sldinfo.com/the-evolving-north-korean-missile-threat/>

<sup>22</sup> NORAD and USNORTHCOM Public Affairs, "NORAD and USNORTHCOM Monitor North Korean Launch," *NORAD Command*, 5 April 2009, accessed 25 May 2015, <http://www.norad.mil/Newsroom/tabid/3170/Article/578326/norad-and-usnorthcom-monitor-north-korean-launch.aspx>

<sup>23</sup> United States National Air and Space Intelligence Center, "Ballistic and Cruise Missile Threat," accessed 25 May 2015, <http://www.25af.af.mil/shared/media/document/AFD-130710-054.pdf>

charged with the defence of Canada. Recently, vocal Canadian and international denouncement of Russian aggressive military activities was followed closely by one of the largest Russian Arctic military exercises in over a decade. This exercise saw over 45,000 troops, 3,000 vehicles, 40 surface vessels, 15 submarines and 110 aircraft participate, bringing ballistic missile capability, supersonic strategic bomber platforms, and frontline fighter aircraft to the simulated war games.<sup>24</sup> It is sobering to consider even the remotest possibility of a strategic conventional strike against Canada in order to demonstrate to the US – Russia’s primary adversary – that economic sanctions should be lifted. Carried over a forty year planning cycle within the context of an increasingly uncertain future where Russia may want to protect an estimated 52% of Arctic undiscovered oil and gas,<sup>25</sup> the impact of such an event exposes Canada to unacceptable risk however remote the possibility of its realization. However, there are efficient and effective ways to invest in Arctic capability.

In the Arctic, a robust military air component capability provides a multifaceted and synergistic control mechanism that helps to reinforce Canadian sovereignty and protect against numerous threats. Canadian CF-18 Hornet fighter aircraft frequently respond to meet Russian air force bombers and fighters that fly probing routes extremely close to Canadian and North American airspace; CP-140 Aurora long-range patrol aircraft equipped with sophisticated Anti-Submarine Warfare (ASW) and other unique surveillance equipment are able to patrol vast areas of the Canadian Arctic marine regions for illegal vessels; and transport aircraft such as C-17s and C-130 Hercules

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<sup>24</sup> Thomas Grove, “Russia Starts Nationwide Show of Force,” *Reuters*, 16 March 2015, accessed 25 May 2015, <http://www.reuters.com/article/2015/03/16/us-russia-military-exercises-idUSKBN0MC0JO20150316>

<sup>25</sup> Ernst & Young, “Arctic Oil and Gas.”

aircraft provide invaluable resupply to distant northern infrastructure such as Canadian Forces Station (CFS) Alert. All of these valuable assets contribute to sovereignty through exercise of control. Rob Huebert concludes that a “government cannot control activity that takes place in its Arctic region in the absence of any ability to enforce against threats that arise.”<sup>26</sup> Unfortunately the potential for other components of the CAF is not the same when considering Arctic capability and control projection.

As far as the RCN is concerned, absence is a key theme where currently there exists only a nascent capability to contribute to Arctic control capability. To begin, historic plans to commission several advanced Arctic Offshore Patrol Ships (AOPS) have fallen short of initial military plans. Seven years after initial announcement, a contract for five ships that will be *slush-breakers* only was finally signed, with delivery projected in late 2018. These ships will have no ability to voyage into high ice conditions and will be capable of transiting the Northwest Passage for approximately only four months of the year.<sup>27</sup> Additionally, Canadian submarines are not under-ice capable and must operate only in ice-free areas of the Arctic, significantly impeding the task of monitoring underwater activity of foreign submarines.<sup>28</sup> Fortunately, Canadian military planners have followed common-sense doctrinal direction to create a layered approach to northern capability. In this case, the CP-140 Aurora patrol aircraft and CF-18 Hornets are capable of filling a limited maritime surveillance role and control of airspace above a geographical location goes far in enabling effective control of the land or sea beneath.

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<sup>26</sup> Rob Huebert, “Canadian Arctic Sovereignty and Security in a Transforming Circumpolar World,” in *Foreign Policy for Canada’s Tomorrow No. 4*, (Canadian International Council: 2009): i.

<sup>27</sup> Michael Bird, “Making Waves: The Navy’s Arctic Ambition Revealed,” *The Globe and Mail*, 4 March 2015, accessed 24 May 2015, <http://www.theglobeandmail.com/news/national/the-navys-arctic-ambition/article23290380/>

<sup>28</sup> Capt (N) Phil Webster, “Arctic Sovereignty, Submarine Operations and Water Space Management,” in *Canadian Naval Review No. 3*, (Fall, 2009): 14.

Unfortunately these capabilities are eroding in the face of decades of reduced military spending and awkward, ineffective defence procurement policies that have hamstrung proper defence planning.<sup>29</sup> The CF-18s used for NORAD are reaching the end of their useful life and their ability to provide a credible deterrent against Russian air forces carrying increasingly sophisticated electronic warfare equipment has been eroded significantly. Furthermore, the increased launch ranges and decreased radar cross-sections associated with new cruise missiles negatively affects our ability to meet codified NORAD *mandates* for defensive capability.<sup>30</sup> Our very ability to detect threats in the Arctic has decreased significantly. The aforementioned ageing of the Canadian DEWS has drawn the attention of senior NORAD commanders who are asking for modernization of ineffective and out-dated equipment.<sup>31</sup> Rob Huebert also acknowledges the requirement to improve Canadian surveillance and enforcement capability by stating that “only the ability to know who is in our Arctic region and what they are doing there will allow us to control those actors and their activities.”<sup>32</sup> A modern CAF air component would go far to provide the requisite surveillance, the presence, and a credible deterrent capability that would enable continued Arctic.

## SUMMARY

This paper has examined the state of Canadian sovereignty in the Arctic. First, it was demonstrated that sovereignty by itself within a vacuum is of little use in a practical

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<sup>29</sup> Elinor Sloan, “Something Has to Give: Why Delays are the New Reality of Canada’s Defence Procurement Strategy,” *Canadian Defence and Foreign Affairs Institute*, accessed 24 May 2015, <http://www.policyschool.ucalgary.ca/sites/default/files/research/sloan-defenceacquis-cdfi.pdf>.

<sup>30</sup> Classified bi-national NORAD agreements between the US and Canada outline specific requirements for capability.

<sup>31</sup> Alexander Panetta, “US Military to Ask Canada for New Missile Sensors in the Arctic,” *Global News*, 7 April 2015, accessed 24 May 2015, <http://globalnews.ca/news/1926127/u-s-military-to-ask-canada-for-new-missile-sensors-in-the-arctic/>

<sup>32</sup> Rob Huebert, i.

sense. In a tightly linked fashion, sovereignty requires capability in order to be effective in achieving positive practical outcomes. This is difficult in the Arctic, where logistical chains are strained and projection of force is often complex and demanding. The efficacy of the RCAF air power component was highlighted as an efficient tool at projecting capability into this difficult environment, providing credible deterrence against current and emergent threats alongside valuable surveillance and responsive control functions. It was also shown that CAF-wide Arctic capability is unfortunately diminishing as CF-18 Hornet fighter aircraft, CP-140 Aurora long-range patrol aircraft, and DEWS radar stations near the end of their life without viable replacements in the near-term. When tensions escalate, hollow capability is easily eroded or compromised,<sup>33</sup> and the casualty will be Canadian sovereignty. Immediate and significant CAF investment in modern fighter, patrol and layered surveillance air component capabilities is required in order to ensure the continued sovereignty of Canada. In the future, there will be assets in the Canadian North; the only question left is whether or not they will have a Maple Leaf proudly displayed.

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<sup>33</sup> BGen (Ret'd) S. Kummel, RCAF Executive Director Fighter Capability Office, interview with author, 29 April 2015.

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