

SIPRI Policy Brief

ADDRESSING MISSILE THREATS IN THE MIDDLE EAST AND NORTH AFRICA

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Missiles have played a distinct role in regional security dynamics in the Middle East and North Africa (MENA) since they were first deployed by countries in the region in the early 1970s.¹ The military value of missiles derives from their ability to deliver strategic strikes while keeping the attacker's own military personnel out of range of the adversary's defensive systems. Their perceived utility as a military tool has increased due to technological improvements, particularly in accuracy. While some states, such as Iraq and Libya, have abandoned their past pursuit of missiles, today at least 10 out of 19 MENA states have missiles that, launched from the ground or from aircraft, can be used to attack high-value targets deep inside other states (see table 1).²

Traditionally, the proliferation of missiles has raised concerns due to their potential use as delivery vehicles for nuclear weapons, but

² MENA includes Algeria, Bahrain, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Oman, Qatar, Tunisia, Turkey, Saudi Arabia, Syria and Yemen. conventional missiles are also increasingly seen to threaten international stability. Yet, no international treaty is specifically dedicated to regulating missiles. In addition, the voluntary multilateral instruments that seek to control the proliferation of missiles-the Missile Technology Control Regime (MTCR) and the Hague Code of Conduct (HCOC)-lack universal support. As for the United Nations arms embargoes or specific legally binding restrictions on missiles, they have been applied only to specific states, notably Iran.³ The absence of a clear normative standard on missiles reflects the desire of states to keep these weapons, along with most other military systems, within the realm of sovereign decision making.

This SIPRI Policy Brief contributes to the discussion on missile proliferation in MENA by providing an overview of regional missile arsenals, and by considering ways to address related risks. With a focus on missiles with ranges above 250 kilometres, the first section describes missile arsenals in the region, focusing in particular on the arsenals of three states: Iran, Israel and Saudi Arabia. The paper then

SUMMARY

• The proliferation of missiles in the Middle East and North Africa (MENA) is linked with intractable security dilemmas and conflicts, arms exports and the use of force by extraregional states. Supply-side controls and other restrictions on missiles are necessary but likely insufficient if applied without consideration of the broader regional security dynamics. Particularly when limited to certain states alongside continued arms exports to others, measures against missile proliferation might end up contributing to the demand side of the problem by exacerbating overall military asymmetries. Hence the need for confidence- and security-building measures (CSBMs) and comprehensive risk assessment of arms export policies, which could help strengthen efforts to restrain both the further proliferation and use of missiles in MENA.

¹ See e.g. Karp, A., *Ballistic Missile Proliferation: The Politics and Technics* (Oxford/ New York: SIPRI/Oxford University Press, 1996); and Gormley, D. M., *Missile Contagion: Cruise Missile Proliferation and the Threat to International Security* (Praeger Security International: Westport, CT, 2008).

³ Prior to the current restrictions on Iran, Iraq and Libya have been under UN arms embargoes that also covered missiles.

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Reported State of Decade of approximate production/ State Missile Name introduction range (km)^a design Ballistic missiles^c Iskander 2010s Algeria 300-400 Russia Bahrain Ballistic missiles^c ATACMS T-2K 300 USA 2010s Egypt Ballistic missiles^c Scud-B 300 North Korea 1980s Air-launched missiles^b (SCALP/Storm Shadow) 250 France . . Iran Ballistic missiles^c Fateh-313 300 Iran 2010s Fateh-e Mobin 300-500 Iran 2010s Shahab-1 and -2 300-500 Iran 1980s Qiam 700 2010s Iran Shahab-3 800-100 Iran/North Korea 2000s Zolfaghar 700 2010s Iran (Dezful) 1000 Iran • • Ghadr 1600 Iran 2000s (Emad) 1600 Iran (Sajjil-2) 2 0 0 0 Iran (Khorramshahr) 2 0 0 0 Iran/North Korea Martyr Hajj Qassem 1400 Iran 2020s Surface-launched cruise missiles (Meshkat) 2 0 0 0 Iran • • Ya Ali 700 Iran 2010s (Soumar) 2 000-3 000 Iran . . (Hoveizeh) 1300 Iran • • Martyr Abu Mahdi 1000 Iran 2020s Israel Ballistic missiles^c Jericho-2 1500-1800 1990s Israel (nuclear warhead) Jericho-3 >4 000 Israel 2010s (nuclear warhead) Predator Hawk 300 Israel 2010s LORA 300 Israel 2010s Air-launched missiles^b Delilah 250 Israel 1990s Rampage 250 Israel 2020s Surface-launched cruise missiles Harop Loitering 1000 Israel 2000s Munition Kuwait Air-launched missiles^b (SCALP/Storm Shadow) Italy 250 . . Qatar Ballistic missiles^c China BP-12A 300 2010s Air-launched missiles^b SCALP/Storm Shadow France 2020s 250 Saudi Arabia Ballistic missiles^c DF-3 2 200-2 600 China 1980s Ukraine (Hrim-2) 280 . . Air-launched missiles^b USA SLAM-ER 250 2010s SCALP/Storm Shadow 250 UK 2000s Turkey Ballistic missiles^c 280 Turkey Bora 2010s (Bora-2) >280 Turkey Air-launched missiles^b SLAM-ER 250 USA 2000s Submarine-launched cruise missiles (Gezgin) 1000 Turkey

Table 1. Missile holdings of countries in the Middle East and North Africa, 2020

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State	Missile	Name	Reported approximate range (km) ^a	State of production/ design	Decade of introduction
UAE	Ballistic missiles ^c	ATACMS T-2K	300	USA	2010s
	Air-launched missiles ^b	Black Shaheen	250	France	2000s

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.. = not available or not applicable; () = missile type ordered/under development but not yet in service; UAE = United Arab Emirates.

Note: The table includes missiles with a range of 250 km or more that have been identified as in use or on order in 2020. The table does not include missiles that are merely rumoured to be in the arsenals of the states listed nor does it include previous holdings or missiles in the arsenals of non-state actors. Libya, Syria and Yemen are not included in the table as the status of their missiles after years of civil war is highly uncertain.

^{*a*} Reported approximate range is from the launching platform. In particular, for air-launched missiles the location of the launch can be hundreds or even thousands of kilometres outside the territory controlled by the deploying country. Reported ranges generally vary between sources and are therefore an indication only. For missiles for which reported ranges differ significantly between sources, the range is given in parentheses.

^b Air-launched missiles include cruise missiles and rocket-propelled missiles.

^c Ballistic missiles include land-based systems only, as none of the states in the table have sea-based ballistic missiles.

Sources: SIPRI Arms Transfers Database, https://www.sipri.org/databases/armstransfers; Nuclear Threat Initiative, 'Country profiles', [n.d.]; US Air Force, National Air and Space Intelligence Center (NASIC), Ballistic and Cruise Missile Threat (NASIC: Wright-Patterson Air Force Base, OH, July 2017).

makes policy recommendations, highlighting the need to move beyond the selective focus on certain types of missiles in the hands of certain states, towards a more comprehensive approach based on greater transparency, responsible arms exports and confidence- and security-building measures (CSBMs).

MISSILES IN THE MIDDLE EAST AND NORTH AFRICA

This section provides an overview of key missile holdings and recent missile use by MENA states.⁴ Iran, Israel and Saudi Arabia stand out in terms of the quality and quantity of their missiles, as well as their readiness for using them against adversaries. However, several other states in MENA also possess missile capabilities (see table 1). While the main focus is on the state of play in the region, the brief background section serves as a reminder that the accumulation of missiles in MENA is a long-term process to which extra-regional powers have also contributed significantly.

Background

Any discussion on missile proliferation in MENA would be incomplete without acknowledging the role of extra-regional powers. France supplied the technology for Israel's first missile programme, which led to the deployment of its Jericho missile in the early 1970s. Egypt, Iraq and Libya also pursued indigenous missile programmes based on technology obtained from Europe, although these were subsequently discontinued.⁵ Most MENA countries, however, opted for importing missiles, reflecting their increasing availability on the international arms market. In particular, the Soviet Union and the Democratic People's Republic of Korea (DPRK, North Korea) supplied Scud short-range ballistic

⁴ If not indicated otherwise, all the data on imports of missiles and other major arms in this paper is based on the SIPRI Arms Transfers Database, <https://www.sipri.org/databases/ armstransfers>, Mar. 2020.

⁵ Karp (note 1).

missiles (SRBMs) to several MENA countries in the 1970s and 1980s.⁶ The use of Scud missiles played an important role in the 1980–88 Iran– Iraq War, contributing to Iran's subsequent missile development. Iraq's 1991 Scud missile attacks against Israel and Saudi Arabia,

Western states fear Iran could develop nuclear-armed intercontinental ballistic missiles in turn, were a major factor behind their investment in missile defences.⁷ By showcasing the effectiveness of

guided missiles in modern warfare, western military operations in the 1990s and 2000s led to increased regional demand for similar weapons. At the same time, in particular the interventions in Iraq in 2003 and Libya in 2011 reinforced the perceived need for robust deterrence capabilities by regional states that saw themselves as potential future targets of similar 'regime change' wars.

Missile arsenals

Iran

In addition to the Iran–Iraq War, Iran's decision to rely on domestically-produced missiles as a core element of its military arsenal was influenced by its limited access to foreign arms.⁸ Iran's diverse arsenal consists mainly of ballistic missiles with a range up to 2000 km. Iran argues it does not need longerrange missiles, and its testing has, in recent years, focused on enhancing

⁶ Kadry Said, M., 'Missile proliferation in the Middle East: A regional perspective', *Disarmament Forum*, no. 2 (2001).

⁷ Taremi, K., 'Beyond the axis of evil: Ballistic missiles in Iran's military thinking', *Security Dialogue*, vol. 36, no. 1 (2005), pp. 93–108; and Karp (note 1).

⁸ Ajili, H. and Rouhi, M., 'Iran's military strategy', Survival, vol. 61, no. 6 (2019), pp. 139–52.

accuracy and manoeuvrability instead of range.9 Nevertheless, Western states fear Iran could still develop nuclear-armed intercontinental ballistic missiles (ICBMs), possibly based on satellitelaunch vehicle (SLV) technology.10 The 2015 Iran nuclear agreement, or the Joint Comprehensive Plan of Action (JCPOA), initially alleviated such concerns, which are linked to efforts to prevent the proliferation of nuclear weapons. However, the JCPOA has been eroded following United States withdrawal from the agreement in 2018. The USA partly justified its withdrawal by arguing Iran's missile activities went against UN Security Council Resolution 2231 (2015), which was passed in connection with the JCPOA (see below).

Iran used SRBMs in retaliatory attacks against the Islamic State in 2017 and against US forces in Iraq in January 2020.¹¹ Iran has also reportedly supplied missiles or related technology to Hezbollah in Lebanon and the Houthi rebels in Yemen, and the state has been accused of a September 2019 drone and cruise missile attack against Saudi oil facilities.¹²

⁹ See e.g. Mehr News, 'IRGC chief says Yemen close to victory', 19 June 2018; and Brigadier General Amir Hatami, quoted in MehrNews, 'Iran to unveil new fighter jet; missile program remains top priority: Defense min.', 19 Aug. 2018.

¹⁰ See for example Deutsche Welle, 'Iran rocket launch condemned by Germany, France, UK and US', 3 Aug. 2017.

¹¹NBC News, 'Iran retaliates for Gen. Soleimani's killing by firing missiles at US forces in Iraq', 8 Jan. 2020; and Al-Jazeera, 'Iran fires missiles at ISIL positions in eastern Syria' 19 June 2017.

¹² Ahmadian, H. and Mohseni, P., 'Iran's Syria strategy: The evolution of deterrence', *International Affairs*, vol. 95, no. 2 (Mar. 2019), pp. 341–64; and United Nations Security Council, Letter dated 27 Jan. 2020 from the Panel of Experts on Yemen addressed to the President of the Security Council, S/2020/70.

Israel

Israel is the only MENA state possessing nuclear-armed missiles, the Jericho series of ballistic missiles, with estimated ranges of between 1500 and 4000 km.¹³ Objecting to Israel's nuclear weapons, Arab states and Iran have long called for the establishment of a zone free of nuclear weapons and other weapons of mass destruction (WMD), including their delivery vehicles, in the Middle East.¹⁴

Israel's long-range conventional strike force relies on advanced combat aircraft, including aircraft equipped with domestically produced air-launched cruise missiles (ALCMs). Israel also has various other types of missiles, such as precision-guided SRBMs and loitering munitions.¹⁵ For example Israel has reportedly used the domestically produced Delilah ALCM and Rampage air-launched guided rocket to attack Iranian targets in Syria in 2018 and 2019.¹⁶

Saudi Arabia

Like Israel, Saudi Arabia has advanced combat aircraft equipped with ALCMs, including SCALP/ Storm Shadows supplied by the United Kingdom. It has also ordered

¹³ Kile, S. N. and Kristensen, H. M., 'Israeli nuclear forces', *SIPRI Yearbook 2018: Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 2018), pp. 278–79.

¹⁴ Erästö, T., 'The lack of disarmament in the Middle East: Thorn in the side of the NPT', SIPRI Insights on Peace and Security no. 2019/1, Jan. 2019.

¹⁵ Loitering munitions are comparable to slow-flying cruise missiles.

¹⁶ Cenciotti, D., 'Israel just released footage of one of its missiles hitting an air-defense system in Syria', Business Insider, 11 May 2018; and Ahronheim. A., 'Did Israel use the supersonic Rampage to strike Iranian targets in Syria?', *Jerusalem Post*, 21 Apr. 2019. SLAM-ER ALCMs from the USA.¹⁷ Saudi Arabia has used SCALP/ Storm Shadows against the Houthis during the military operation ongoing in Yemen since 2015.¹⁸

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Saudi Arabia has a small arsenal of DF-3 ballistic missiles with a range of 2200–2600 km, supplied in 1987 by China. Its reported purchase of more advanced DF-21 ballistic missiles in 2007 has not been confirmed.¹⁹ Following a 2016 order, an SRBM production line from Ukraine is under construction in Saudi Arabia.

Other MENA states

In the Gulf region, the United Arab Emirates (UAE) has acquired a sizeable arsenal of Black Shaheen ALCMs from France and ATACMS T-2K SRBMs from the USA. While there is no evidence these missile types have been used in the Saudiled military operation in Yemen, the UAE has reportedly

used shorter-range ALCMs against the Houthis.²⁰ The recent expansion of Qatar's armed forces included

purchases of advanced combat aircraft equipped with SCALP/ Storm Shadow ALCMs from France and BP-12A SRBMs from China.

Iraq's remaining missile arsenal was dismantled in 2003.²¹ In the same year, Libya abandoned its previous nuclear and missile programmes in agreement with

¹⁷ SIPRI Arms Transfers Database (note 4).
¹⁸ Chuter, A., 'UK-supplied precision
weapons prove popular in Saudi-led Yemen
campaign', *Defense News*, 17 Oct. 2016.

¹⁹ Nuclear Threat Initiative, 'Saudi Arabia', updated June 2019.

²⁰ Amnesty International, 'Yemen: Coalition used UK missile in unlawful airstrike', 25 Nov. 2015.

²¹ Nuclear Threat Initiative, 'Iraq', updated Jun. 2012.

Israel is the only MENA state possessing nuclear-armed missiles

western powers.²² Any remaining Scud SRBMs in the country are likely unserviceable.

Egypt likewise seems to have abandoned its previous ambitions regarding domestic missile development, and it has instead focused on imports.²³ For example Egypt ordered SCALP/Storm Shadow ALCMs from France in 2015.

Algeria received Iskander SRBMs from Russia in 2017. Turkey has

> acquired SLAM-ER ALCMs from the USA, and, based on Chinese technology, developed Bora SRBMs domestically. Turkey

has also considered the development of longer-range ballistic missiles and is developing a cruise missile.²⁴

The status of the Syrian and Yemeni missile arsenals—which consisted mostly of SRBMs—is uncertain due to civil wars in those countries.

Missile defences

Israel and most of the Arab states of the Gulf have invested heavily in missile defence systems, based around surface-to-air missile systems (SAMs), in response to actual or perceived threats from non-state actors and Iran. Paradoxically, this has partly driven Iranian efforts to develop

²² Kile, N. S., 'Nuclear arms control and non-proliferation', *SIPRI Yearbook 2004: Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 2004), pp. 617–19.

²³ Nuclear Threat Initiative, 'Egypt', updated Jan. 2015.

²⁴ Bekdil, B. E., 'Turkey–Ukraine work on missile engine could open door to tech transfer', *Defense News*, 13 Oct. 2020; and Egeli, S., 'Turkey embarks upon ballistic missiles: Why and how?', *Uluslararası İlişkiler*, vol. 14, no. 56 (2017), pp. 3–22. missiles that can penetrate such defences, notably through greater manoeuvrability.

Israel's multi-layered defences include domestically produced SAM systems like Iron Dome, as well as the Arrow system developed in cooperation with the USA. Saudi Arabia's US-supplied missile defences consist primarily of Patriot Advanced Capability PAC-3 SAM systems, which can be used against aircraft, cruise missiles and ballistic missiles, and it has also ordered the THAAD, a dedicated anti-ballistic missile system. The efficiency of Saudi Arabia's existing PAC-3 defences has been questioned as the systems have failed to intercept several missiles launched by the Houthis since 2017.²⁵ The UAE is the first state outside the USA to have deployed THAAD, in addition to PAC-3. Kuwait and Qatar also have PAC-3s, and Bahrain ordered PAC-3s from the USA in 2019. Turkey has bought the S-400 system from Russia.

TOWARDS A COMPREHENSIVE APPROACH FOR ADDRESSING REGIONAL MISSILE THREATS

Missile-related armament dynamics in MENA are not new, but they have intensified, and missiles have been used with increasing frequency in recent years. However, thus far, the measures taken against missile proliferation have tended to focus mainly on Iran, with little attention paid to other relevant developments, such as the use of ALCMs within the region by both MENA states and major powers. This indicates the need for a more comprehensive approach to tackling the complex

Israel and most of the Arab states of the Gulf have invested heavily in missile defence systems

²⁵ Axe, D., 'Did US missile defenses fail during Saudi Oil attack?', *National Interest*, 17 Sep. 2019.

missile-related threats in MENA. This section proposes steps that regional and extra-regional states, especially the suppliers of missile technology, could take to contribute to such an approach. While the longterm goal should be cooperative arms control involving missiles and other military capabilities, this is hardly possible in the short term given the persistent political tensions and militarization in the region. Hence the following recommendations mainly focus on transparency and other CSBMs.

Increase transparency through relevant multilateral instruments

MENA states tend to be secretive about their military arsenals, including missiles. This tendency is enforced by the lack of transparency by extra-regional states regarding their missile transfers to the region. In addition to feeding mutual suspicions, secrecy complicates risk assessments regarding the potential negative impact of missile transfers on regional security (see below).

Regional states could increase transparency on missiles by joining the relevant international instruments. The HCOC promotes restraint though pre-notifications of ballistic missile and SLV launches, among other measures.²⁶ The 143 states that subscribe to the HCOC include the five MENA states of Iraq, Jordan, Morocco, Tunisia and Turkey.²⁷ Additionally, states in the region could report their missile imports or holdings, or submit a more general report on all their long-range weapons, to the UN Register of Conventional Arms

(UNROCA). Of the MENA states with significant missile arsenals, only Israel has reported regularly to UNROCA on its arms imports, although not on the types of missiles discussed in this paper.²⁸

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While it would be recommendable for all MENA states to participate in the above transparency instruments, it is important to be cognizant of political obstacles that have prevented them from doing so thus far. Egypt and Iran have long objected to the HCOC as being discriminatory, and Israel has likewise been reluctant to join.²⁹ The League of Arab States criticizes the exclusion of WMD from UNROCA reporting categories, opposing the instrument on that basis.³⁰ Although these positions are likely to persist, there might still be room for considering participation in light of the potential benefits of increased transparency for developing cooperative security in the region.

The lack of transparency is not limited to MENA; states exporting missiles to the region often omit all or part of the information on such transfers when reporting to UNROCA or in the framework of the

²⁹ See e.g. UN, General Assembly, First Committee, 73rd session, 'Explanation of vote of the Delegation of the Islamic Republic of Iran on draft resolution L.25 entitled: The Hague Code of Conduct against Ballistic Missile Proliferation', 2 Nov. 2018; and Smith, M., 'The HCOC: Current challenges and future possibilities', Paper, EU Non-Proliferation and Disarmament Consortium, 2017.

³⁰ Wezeman, S. T., *The Future of the United Nations Register of Conventional Arms*, SIPRI Policy Paper no. 4 (SIPRI: Stockholm, Aug. 2003), pp. 12–13.

²⁶ Hague Code of Conduct (HCOC), 'Text of the HCOC', updated Nov. 2012.

²⁷ HCOC, 'List of subscribing states', updated Feb. 2020.

²⁸ See UN Office for Disarmament Affairs, UN Register of Conventional Arms. On UNROCA see also Wezeman, P. D., Béraud-Sudreau, L. and Wezeman, S. T., 'Transparency in arms procurement: Limitations and opportunities for assessing global armament developments', SIPRI Insights on Peace and Security no. 2020/10, Oct. 2020.

Arms Trade Treaty (ATT).³¹ These states should improve their own reporting and encourage regional states to participate in UNROCA.

Clarify international norms on missiles

The international norms regulating missiles are weakened by controversy over their interpretation. For example, the 35 member states of the MTCR agree on strict limitations on the export of ballistic and cruise missiles that can deliver a payload of at least 500 kilograms to a range of at least 300 km, which the MTCR defines as WMD-capable. They also commit themselves to

Outside of the MTCR, there is no consensus on the definition of WMDcapable missiles or activities crucial for their development vigilance in the export of missiles that could reach 300 km, regardless of payload, even though the interpretation of relevant limits has caused some

controversy within the MTCR.³² However, outside of the MTCR there is no consensus on the definition of WMD-capable missiles or activities crucial for their development. Disagreements over this issue have culminated in connection with Resolution 2231, which calls upon Iran 'not to undertake any activity related to ballistic missiles designed to be capable of delivering nuclear weapons' (until 2023).³³ Iran argues the resolution does not restrict its conventional missile tests or SLV launches, whereas France, Germany,

³¹ Wezeman, P. and Wezeman, S. T., 'The 2015 UN Register on Conventional Arms: Still time to improve', SIPRI Expert Comment, 18 Sep. 2015.

³² Missile Technology Control Regime, 'MTCR guidelines and the equipment, software and technology annex', [n.d.]; and Lewis, J., 'Storm Shadow, Saudi and the MTCR', Arms Control Wonk, 31 May 2011.

³³ UN Security Council Resolution 2231, S/RES/2231, 20 July 2015. the UK and the USA interpret it as imposing a moratorium on such launches.³⁴ Controversies over technical definitions and inconsistencies in the application of missile-related norms point to the need for an inclusive international discussion on missiles—possibly in the form of a new attempt at expert dialogue on the topic within the UN framework.³⁵

Avoid exacerbating existing military asymmetries in the region

Considering the military asymmetries in MENA, any arms control approach that focuses solely on missiles without taking into account other military capabilities and broader regional security dynamics is unlikely to get far. To curtail militarization in MENA, arms exports to the region should be subject to more critical scrutiny. European Union (EU) states can exercise such scrutiny while assessing the risk that arms exports to MENA states may adversely affect regional stability, as required by the EU Common Position on Arms Exports.³⁶ A broad discussion on responsible arms exports to MENA could be pursued amongst the 110 states that have ratified the ATT, which requires states to assess the risk that weapons exports undermine peace and security.37 Such assessments

³⁶ Council of the European Union, 'Council Common Position 2008/944/CFSP of 8 Dec. 2008 defining common rules governing control of exports of military technology and equipment', *Official Journal of the European Union*, L3335, 8 Dec. 2008.

³⁷ Arms Trade Treaty, Article 7, United Nations Treaty Collection

³⁴ Erästö, T., 'Dissecting international concerns about Iran's missiles', SIPRI Topical Backgrounder, 15 Nov. 2018.

³⁵ Nakamitsu, I., Keynote address at the 2nd (online) meeting of the Missile Dialogue Initiative, 7 Sep. 2020.

should also take into account the presence or possible deployment of missiles and other weapons by external states in MENA and how this may affect armament developments in the region.

Strengthen conflict management efforts and restore the Iran nuclear deal

It is important to de-escalate the heightened tensions between Iran and the USA, which partly derive from disagreements over missiles. Under President Donald J. Trump's administration the USA has sought to link this issue to negotiations on the country's nuclear programme, and pursued a campaign against Iranian missiles and other major conventional weapons at the cost of the JCPOA.³⁸ Traditionally, however, the USA has prioritized the need to prevent Iran from developing nuclear-capable missiles. Were the USA to refocus on the more limited goal of nuclear nonproliferation, the most effective way to do this would be to restore the JCPOA-which could also work as a tool of bilateral conflict management between Iran and the USA. An improvement of Iranian-US relations would also alleviate Iranian threat perceptions of the USA, which are a major driver behind Iran's missile activities.

Engage in confidence- and security-building measures to manage risks and address root causes of militarization

MENA states could explore missilerelated CSBMs as part of efforts for establishing a Middle East Zone Free of Nuclear Weapons and other WMD, which is also supposed to cover delivery vehicles.³⁹ Any far-reaching CSBMs are unlikely without Israel, which boycotted the first UN conference on the establishment of such a zone in November 2019.⁴⁰ While Israel's policy of nuclear ambiguity

apparently prevents any meaningful discussion on missiles in this context, certain steps could be explored even without Israel

or its full engagement. For example, a regional dialogue could seek to have states clarify the role of missiles in their military postures, or to agree on pre-notification of missile and satellite launches.

In principle, missile-related CSBMs could also be explored within some other diplomatic process addressing broader security issues-potentially among the Gulf states, or between Iran and the USA.⁴¹ However, there is little indication of political will to initiate such efforts, which would require mutual recognition of security concerns and determination to manage conflicts in a cooperative manner. Extra-regional actors should use their diplomatic leverage to encourage MENA states to engage in regional dialogue in any format that seems most feasible politically. Those external actors

³⁹ Davenport, K., 'WMD-free Middle East proposal at a glance', Arms Control Association, Fact Sheet, updated Dec. 2018.

⁴⁰ UN, General Assembly, Conference on the Establishment of a Middle East Zone Free of Nuclear Weapons and Other Weapons of Mass Destruction, First session, Report of the conference on the work of its first session, A/CONF.236/6, 22 Nov. 2019.

⁴¹ See e.g. Luers, W., Pickering, T. and Thielmann, G., 'Dealing with Iran's ballistic missile program', National Interest, 8 Feb. 2016.

MENA states could explore missilerelated CSBMs as part of efforts for establishing a Middle East Zone Free of Nuclear Weapons and other WMD

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 ³⁸ BBC News, 'Iran nuclear deal: UN rejects
US bid to "snapback" Iran sanctions', 26 Aug.
2020.



that are involved in regional conflict dynamics, have deployed and used

The proliferation of missiles in MENA is both a symptom and a source of regional instability, linked with intractable security dilemmas and conflicts missiles in MENA or have supplied missiles to the region may have limited credibility in promoting missile related dialogue or CSBMs. However,

this is, at the same time, reason for including them in efforts to achieve dialogue and CSBMs.

CONCLUSIONS

The proliferation of missiles in MENA is both a symptom and a source of regional instability, linked with intractable security dilemmas and conflicts. Export controls and other restrictions on missiles are necessary but likely insufficient if applied without consideration of the broader regional security dynamics. Particularly when limited to certain states alongside continued arms exports to others, measures against missile proliferation might end up contributing to the demand side of the problem by exacerbating overall military asymmetries. As argued in this paper, a more sustainable approach for restraining the further proliferation and use of missiles in MENA would be based on addressing underlying conflicts though CSBMs involving both regional states and external powers, and on conducting more thorough risk assessments of arms export policies to the region.



ABBREVIATIONS

ALCM	Air-launched cruise missile
ATT	Arms Trade Treaty
CSBM	Confidence- and security-building measure
EU	European Union
HCOC	Hague Code of Conduct
ICBM	Intercontinental ballistic missile
JCPOA	Joint Comprehensive Plan of Action
MENA	Middle East and North Africa
MTCR	Missile Technology Control Regime
SAM	Surface-to-air missile
SLV	Satellite-launch vehicle
SRBM	Short-range ballistic missile
UAE	United Arab Emirates
UNROCA	United Nations Register of Conventional Arms
WMD	Weapon of mass destruction

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