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# Missile Proliferation in the Middle East

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*The James Martin Center for Nonproliferation Studies, the National Defense University, and the Institute for National Security Studies held a two-day nonproliferation dialogue in Israel, April 29–30, 2018. The purpose of the dialogue was to exchange views on evolving threat perceptions, perceived gaps in goals, priorities, and policies, and identify further opportunities for deepening US–Israel cooperation in countering the proliferation of WMD and related threats. The following policy memo is based on the author’s presentation delivered during the dialogue.*

The Middle East has been a key region affected by missile proliferation, starting in the 1950s and 1960s with French transfers to Israel and Egypt’s effort to develop missiles with the help of German scientists.

Proliferation continued with Soviet transfers of Scuds to Egypt, Iraq, Libya, and Syria in the 1960s and 1970s, and accelerated in the 1980s and 1990s with North Korean exports of missiles and missile production capability to Egypt, Iraq, Libya, and Syria. Technology from North Korea, the former Soviet Union, and China continued to flow into the region well into the 1990s and beyond. The key missile threats in the region are:

**The threat posed to the United States and Israel from Middle East missile proliferation is acute. But cooperation in traditional nonproliferation measures can continue to impede the pace at which the threat will grow.**

- **Iran**, which relies on ballistic missiles as a bedrock of its regional warfighting and deterrence capabilities, having integrated hundreds of short-range ballistic missiles (SRBMs, with ranges up to 1000 km) and medium-range ballistic missile (MRBMs, with ranges of 1,000–3,000 km) into its

conventional military forces. It also uses missiles to enhance its regional influence and domestic prestige. Key potential developments for the future are: improved accuracy and lethality to enhance conventional warfighting effectiveness (including efforts at anti-ship ballistic missiles), the deployment of land-attack cruise missiles, the maintenance of an inherent nuclear delivery capability, and the potential development of intermediate-range ballistic missile an (IRBM, with ranges of 3,000–5,500 km) and an intercontinental-range ballistic missile (ICBM, with ranges of 5,500 km and greater) capabilities—at a minimum, in the guise of a space-launch vehicle (SLV) capability.

- **Syria** retains large numbers of SS-21 Scuds- and Iranian-origin M600s- ballistic missiles —as a threat to Israeli population centers to deter large-scale Israeli attack. These systems had chemical warheads available in the past, Syria may still have them, and certainly could have them again in the future. Although civil war has substantially disrupted Syria’s missile production program over the past several years, the stabilization of the domestic situation raises the prospect of resuming full-scale indigenous missile production

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with Iranian and North Korean assistance. The fate of Syria's past nuclear weapon program remains a long-term wild card.

- **Egypt** retains Soviet- and North Korean-supplied Scuds and produces North Korean Scud-class systems indigenously. Given the regional trend toward longer-range systems, it would not be surprising if Egypt were to seek to develop medium-range missiles, perhaps based on its indigenous SRBMs.
- Small ballistic missile forces also exist in **Saudi Arabia**, which imported Chinese CSS-2 IRBMs in the late 1980s, the **United Arab Emirates**, which imported North Korean Scuds, **Turkey**, which imported short range ballistic missiles from China, and in the former governmental forces of **Yemen**, which imported Soviet SS-21s and Scuds as well as North Korean Scuds. Saudi Arabia might seek more modern missiles to replace its CSS-2s, particularly if Riyadh's concerns about Iran's nuclear capability grow, and Turkey might seek MRBMs.
- **Non-state actors** in the region are amassing short-range rockets and even guided missiles capabilities that also threaten stability—both because of these actors' own objectives and the potential they may act as allies of, or proxies for, Iran. Hezbollah has tens of thousands of rockets, including some that can reach any Israeli population center, and some press reports suggest it has access to SRBMs. Hamas and Palestinian Islamic Jihad have hundreds of short-range rockets. The Houthis in Yemen have used missiles from the former regime and missiles smuggled in from Iran against the Saudi coalition and targets in Saudi Arabia. The fate of the Muammar Qaddafi regime's remaining Scuds in Libya is unclear. In the future, these groups could acquire more, longer-ranged, and more accurate rockets and missiles.

### **Nature of the threat**

Based on current missile proliferation, it is abundantly clear that the regional missile proliferation threat within the Middle East is acute. From a US standpoint, Iran's missile capabilities—and those of non-state actors that may act as Iranian allies or proxies—are of greatest concern. These rocket and missile programs have the potential, now or in the future, to:

- Intimidate or coerce US allies and friends in the region, through the implicit or explicit threat of striking cities and other area targets throughout the region, causing civilian casualties and panic. This might also provide an “umbrella” for further Iranian terrorism, proxy subversion, and threats to impede free navigation by inhibiting retaliation against Iran for such actions.
- Seriously disrupt public life and damage infrastructure of US regional allies and friends in an actual conflict, directly and/or via proxies. As missile accuracy improves, Iran and its proxies also will be able to directly strike specific military, economic (e.g., oil production, desalination facilities), and political targets.
- Disrupt US military basing, reinforcement, and operations in the region. This ability might also lead regional US allies and friends to question the reliability or value of US support in an impending conflict.
- Target US naval operations and sea lines of communication within the Gulf and potentially the Arabian Sea, and to reach beyond the region to Europe or even the US mainland, and potentially to deliver nuclear weapons both within the region and externally.

### **Plans to address the threat**

The United States has been working to reduce the threat of missile proliferation within the Middle East and elsewhere since the 1980s. Although the

current and prospective regional missile threat described above is quite serious, this threat would have been much worse, much more quickly, without the spectrum of missile nonproliferation measures that the United States and its allies and friends have been engaging in over the past 30 years, ranging from national export controls and the Missile Technology Control Regime (MTCR) to interdiction and sanctions and threat reduction programs. Through these efforts, and in conjunction with broader US foreign and military policies in the Middle East, the US, allies, and friends have:

- Directly reduced the number of countries in the region with indigenous missile programs or imported missiles, as well as the number of such missiles, including in Iraq and Libya; and reduce the number of countries that export such missiles to the Middle East;
- Dissuaded other countries, including in the Middle East, from developing MTCR Category I missiles (missiles capable of delivering a payload of at least 500 kg to a range of at least 300 km) and induced China and Russia to essentially stop exporting complete MTCR-class missile systems and their production facilities;
- Made it more difficult, time consuming, and politically and economically costly to pursue Category I programs for the relatively limited number of Middle Eastern countries that still seek to do so; and
- Significantly reduced the availability of the most and best missile technologies, particularly by largely walling MTCR members off as a significant supplier of MTCR-controlled technologies for proliferation programs.

### **US–Israel Cooperation**

There has been long-standing cooperation between the United States and Israel, particularly on Iran. That is especially the case between the two intelligence communities and militaries in

matters of missile defense. Nonproliferation policy coordination probably is of more recent vintage, but has become an area that both sides have recognized as worth improving. The following are some ideas for potential enhanced US–Israel cooperation in traditional nonproliferation measures, and in military affairs, against missile proliferation in the Middle East.

Pursuing the full spectrum of traditional missile nonproliferation measures will continue to be important to impede the missile threat in the Middle East. While the regional threat clearly is already serious, it can still get worse, more quickly, if energetic efforts are not continued. Four ideas for enhanced US–Israel efforts are:

- The United States could do more to facilitate Israeli dialogue with the MTCR, where Israeli information on regional missile programs, their procurement channels and techniques, and their use of non-MTCR-listed technologies could add to MTCR members’ awareness and effectiveness in impeding those programs.
- The United States and Israel could build non-regime-member states’ awareness of Middle East missile threats by co-hosting more cooperative activities within the framework of the Proliferation Security Initiative.
- The United States and Israel could increase cooperation in identifying the suppliers and procurement routes for non-state actors’ indigenous rocket programs, so that the United States could do more to discourage foreign supply. Both countries could work with Egypt and the Saudi/UAE coalition to better interdict smuggling into Gaza and Yemen, respectively.
- Israel could do more to use its unique diplomatic relationships to support US missile nonproliferation efforts against Middle East threats. For example, Israel could help dissuade various sub-Saharan African countries from engaging in military

and other cooperation with North Korea, thus limiting earnings of hard currency North Korea could use to develop improved missile capabilities to export to the Middle East. Israel also could sensitize China, Singapore, Taiwan, and other key source or transit governments with which it has close ties about Iranian, Syrian, and Hezbollah procurement practices.

### **Military measures**

Given the size and scope of missile threats in the region, traditional nonproliferation measures can only be one part of addressing what are now mature, well-established, and substantially indigenized programs that their possessors see as integral to their national security objectives. Missile defenses and counterstrike capabilities will need to carry more of the load in coping with the missiles' regional threat, building on the standards, policy coordination, international outreach, and technology impedance of traditional missile nonproliferation measures. Three ideas for enhanced US–Israel military cooperation against missile proliferation are:

- The United States could offer to transfer Israeli-designed rocket and missile defense systems (produced in the United States as needed) to Gulf Arab states to help protect against Iranian or proxy missile attacks. This would need to take into account maintaining Israel's Qualitative Military Edge, its ability to counter and defeat any credible conventional military threat from any individual state or possible coalition of states or from non-state actors, while sustaining minimal damages and casualties, through the use of superior military means.
- The United States could work to leverage Israeli expertise in civil and passive defense to help improve Gulf Arab countries' ability to limit the impact of Iranian or proxy missile attacks.

- The United States and Israel could reach an understanding of what kinds of strike capabilities, operated under what conditions, Gulf Arab states should possess to help deter and respond to Iranian missile attacks while limiting the potential threat to Israel.

### **Possible missile control limitations**

Missile control is another area where the United States and Israel could cooperate. Since such limitations, at this point, are purely speculative with few apparent near-term prospects for becoming a reality, the following discussion will only be general.

One of the ripest areas for possible limitations would be on Iranian missiles with a range greater than 2,000 km. The longer Iran refrains from testing missiles beyond this limit, the longer it will take to develop a viable missile threat against the continental United States and even Western Europe. While this may be of limited direct value to Israel and Gulf Arab states, it would minimize Iran's ability to "decouple" the United States from the security of its friends and allies. Iran already claims to be limiting itself to this threshold, although the extent to which that is either true or enduring is both unknown and easily changeable. But Iran's claim for self-restraint may offer a basis for efforts to elicit from Iran clearer and/or more explicit and formalized restraints against launching rocket systems to a minimum-energy-equivalent ground range beyond 2,000 km. In the absence of explicit or tacit Iranian agreement, the United States and its friends and allies could consider unilateral steps aimed at promoting *de facto* Iranian adherence to such a 2,000 km threshold, including threatening substantially expanded sanctions or even strikes against Iranian missile facilities, if the threshold were crossed.

A related area would be limits on Iranian SLVs, or rocket systems capable of a ground range beyond 2,000 km flown only in space launch profiles. There could be explicit or tacit limits on such parameters as flight profiles, delivery of payloads that can survive re-entry, or the use of

mobility or solid-propellants. Given that a supposed SLV program under such limits could serve as a technology testbed and breakout repository for an IRBM or ICBM capability, another possibility would be for Iran to forgo its “SLV” program in exchange for the ability to launch satellites from other countries on their foreign boosters.

Another possibility would be to seek constraints on further Iranian rocket- and missile-related transfers to proxies. Although Hezbollah and Hamas already have a large number of rockets, a near-term export ban could impede further range and accuracy improvements. Since such constraints would require a change in ongoing Iranian regional activity that Tehran clearly sees as being in its interest, this idea has a lower probability of success than maintaining the current situation of no missile tests beyond 2,000 km. Similarly, the termination of Iranian missile cooperation with North Korea (including Iranian missile-related imports) could be sought from Iran and should also be part of a future US–North Korea nuclear agreement.

Finally, one could posit regional missile limitations on the premise that Iran would be more likely to limit its missile programs in a broader regional missile deal than unilaterally. Obviously, this would be the most complex and difficult approach.

Any form of negotiated restraint is likely to be fraught with difficulty, take time, present interpretation, monitoring, and circumvention challenges, require *quid pro quos* or carrots to obtain, and leave some parts of the Iranian missile threat unconstrained. That said, only Iran can substantially restrain its missile program; the outside world can impede that program, but, short of war, cannot prevent its pursuit. Therefore, efforts to obtain Iranian restraint should be part of the overall toolkit used against Iran’s missile program. Traditional nonproliferation measures and military tools can both pressure Iran to accept restraints and lessen the threat its missile program poses after the restraint is applied.

## Conclusion

Missile proliferation is a significant part of the Middle East security landscape. US–Israel cooperation on traditional nonproliferation measures can continue to impede the pace at which the threat will grow, both in quantity and quality. There remains an opportunity to dissuade and hinder Iranian efforts to develop IRBMs and ICBMs, and this should be a particular focus of US–Israel cooperation. For the well-established rocket and missile threat within the region, missile defenses and other military measures will have to carry an increasing part of the US and Israeli counterproliferation load. In all of these areas, there are worthwhile opportunities for more and deeper US–Israel cooperation to the benefit of both countries.

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