MH17 and the Missile Threat to Aviation

Volume: 18
Issue: 19
Monday, September 8, 2014
Author: Barry Kellman

The shooting down of Malaysia Airlines Flight MH17 (MH17) over Ukraine on July 17, 2014 shows how vulnerable we all are when we travel. It was, said the Director of the International Airline Transport Association, "an attack against the air transport system which is an instrument of peace."[1] (/print/1638#_edn1)

Malaysia Airlines Flight MH17 left Amsterdam for Kuala Lumpur with 283 passengers and 15 crew. Flying in unrestricted airspace about 10,000 meters altitude, it exploded in mid-air; all on board perished. The wreckage crashed near Torez, Ukraine, about twenty-five miles from the Russian border. The United States Government believes that the explosion was the impact of a surface-to-air missile fired from the territory controlled by pro-Russian separatists, likely a Soviet-designed Buk SA-11 missile. In addition to the Malaysian crew, most of the passengers (193) were Dutch; many were AIDS experts heading to the 20th international AIDS Conference in Australia.

This Insight examines the challenges of holding responsible persons accountable for the MH17 tragedy and especially the supplier of the anti-aircraft missile that was used. It then considers international law's capacity for preventing recurrences of this tragedy by constraining non-State actors’ access to anti-aircraft missiles.

Accountability for MH17

The United Nations Security Council unanimously adopted Resolution 2166 demanding that persons and entities responsible for the downing of MH17 “be held to account and that all States cooperate fully with efforts to establish accountability.” The Resolution further demands that armed groups operating in Ukraine provide safe, unrestricted access for an investigation and “refrain from any actions that may compromise the integrity of the crash site.”[2] (/print/1638#_edn2)

Accountability lies, inter alia, under the Convention for the Suppression of Unlawful Acts Against the Safety of Civil Aviation, which makes it an offense to unlawfully and intentionally destroy a civilian aircraft in service.[3] (/print/1638#_edn3) Each State Party must criminalize such offenses and must prosecute or extradite suspects. This Convention offers no defense to either States or non-State actors based on their political motivation, nor on any purported rights of combatants in an armed conflict.

It appears unlikely that the International Criminal Court (ICC) will have a prosecutorial role with regard to MH17.
Ukraine, which presumably has territorial jurisdiction and whose nationals might be accused of the crime, could declare its acceptance of the ICC’s jurisdiction.[4] Yet, the Netherlands, with 193 nationals on board MH17 and now leading an international investigation into the explosion, has denied any need for ICC prosecution. Instead, Dutch officials have characterized the MH17 explosion as a war crime over which Dutch law establishes universal jurisdiction – a characterization aided by the International Committee of the Red Cross’s (ICRC) assessment that the conflict in Ukraine is a “war.”[5] The likelihood of prosecution in national court(s) has been recently reinforced by the agreement of Ukraine with all eleven nations that lost citizens aboard MH17, meeting under the umbrella of Europe’s judicial cooperation agency Eurojust, to set up a joint team of prosecutors to examine possible criminal charges.[6]

Prosecuting the SAM Provider

The launcher of the surface-to-air missile (SAM) that exploded MH17 did not operate alone or without support of an organized group. SAMs are military weapons designed to deter and destroy an adversary’s fighters and bombers, planes that are much faster and less vulnerable than civilian aircraft. With its sophisticated guidance technology, the SAM was launched from a platform where operators, who should have had considerable training and sophistication in the missile’s operation, programmed it to destroy its target.

Perhaps the weapon was stolen, but more likely a military source delivered it to whoever put it to lethal use, and likely that source knew that the recipients did not belong to any organized military. Legal accountability should reach whoever is responsible for these missiles being operated by persons who should not have operated them. Thus, there is an important question at the heart of prosecuting responsibility for MH17: On whose authority was the SAM provided (presumably) to foreign non-State separatists who had no authority under any nation’s military (again presumably) to have missiles that are designed for national defense?

Under international criminal law, to prosecute the missile providers would require a finding of aiding and abetting – the missile providers would have had to have appreciated that their actions meaningfully contributed to the crime’s commission. Yet, to hold a missile provider responsible for international crimes committed with its weapons would be virtually unprecedented. Prosecution of the missile provider in the MH17 context might be especially problematic: although the missiles were clearly provided for the purpose of shooting down planes (SAMs have no other purposes), the anticipated targets were unlikely to have been civilian airliners. Even under an expansive notion of aiding and abetting, it is questionable if the missile provider could be held to have aided and abetted this crime.

Prosecution of the missile provider might better proceed under various national laws enacted to curb the threat of catastrophic terrorism. For example, under United States law, it is illegal to transfer, directly or indirectly, an explosive or incendiary rocket or missile that is guided by any system designed to direct the rocket or missile to an aircraft. If commission of this crime leads to another person’s death, the penalty is up to US $2,000,000 and life imprisonment. Extraterritorial jurisdiction would seem satisfied as the statutory requirement – interference with interstate or foreign commerce – is manifest.[7] In this case serious consideration might be given to U.S. prosecution as well as to the potential for other nations to invoke comparable laws.

Airliner Shoot-Downs

Airliners have been shot down before. Ukrainian military shot down a Russian airliner flying from Novosibirsk to Tel Aviv in 2001. Ukraine had been conducting a massive military exercise including shooting missiles at drones; one missile locked onto the Russian airliner off the Crimean coast. Ukraine paid $15.6 million to the victims’ families.

Airliner shoot-downs were more common in the 1980s and before. Korean Air Lines (KAL) Flight 007 was shot down by Russian fighter jets using air-to-air missiles in 1983. KAL 007 had strayed twice over Soviet airspace and was shot down as an intruder. This shoot-down led to the expansion of the Global Positioning System (GPS) to civilian aviation; had GPS been available, the KAL pilot might have been less likely to drift into Soviet airspace. In 1988, Iran Air Flight 655 was shot down by the United States Navy with a SAM launched from the guided missile cruiser USS Vincennes. Iran sued the United States in the International Court of Justice; in 1996, the American government, without apologizing or admitting guilt, agreed to pay nearly $62 million to the victims’ families (about 3% of what the United States secured for victims of the Lockerbie plane bombing that year).[8]

All these incidents were the result of deliberate, albeit mistaken, decisions by authorized military personnel. To
ensure no recurrences, global systems have been improved for gathering and transmitting data about routings and airliners’ civilian status to national officials who should be able to analyze that data to distinguish errant airliners from real threats.[9] Pursuant to these systems’ requirements, MH17 explicitly so notified Ukrainian authorities, but such notifications were either unknown or irrelevant to the missile launchers.

In the wake of MH17, some experts have called for an international system to re-route planes away from conflict zones.[10] Currently, an airliner’s routing is decided jointly by the airline and the appropriate national regulatory officials. There is no authorized international system for providing alerts of elevated risks, nor are there standards for what constitute elevated risks, nor are there concrete plans for what airlines should do when an area is deemed too risky for flight. Notably, the International Civil Aviation Organization (ICAO), in response to MH17, will convene a high-level safety conference in February 2015 to discuss improvements to the warning system.[11]

**Dangers of Proliferating Anti-Aircraft Missiles**

While improving the aviation warning system should be welcome, some experts assert that flying over conflict zones is almost unavoidable; route deviations could add substantial travel time and expense and perhaps cause planes to fly through more dangerous weather or other conditions.[12] More centrally, the proliferation of missiles and advances in missile technology suggest that merely improving airliner capacities for avoiding areas where conflicts persist is, by itself, an inadequate long-term strategy.

Internal threats against aircraft such as hijacking or smuggling explosives on board can and are being addressed by improving airline security on the ground. But it is unrealistic to think of shielding an airliner from a missile. Defenses against shoulder-fired missiles would cost upwards of US $1-2 million per plane.[13] The costs of shielding an airliner against the much bigger, faster guided SAMs that were used to shoot down MH17 is not estimable. Nor is there any guarantee that such a system would work.

In truth, SAMs are capable of killing large numbers of people in an instant, and, once a missile is launched, neither the airlines nor their passengers can possibly defend themselves. In the hands of unauthorized persons lacking supervision of a military chain of command and most likely untrained in how to distinguish targets accurately, SAMs represent a readily available way for any deviant group to inflict terror indiscriminately on the global aviation community, whether it intends to do so or not.

It is difficult to speculate about how many SAMs are outside military control.[14] The Israel Defense Forces claim that Hezbollah has hundreds of SAMs,[15] and Al-Qaeda’s manual for using SAMs has been found.[16] Altogether, the licit market for anti-aircraft missiles is estimated to be nearly $35 billion for 2011–2021; the size of the illicit market is incalculable.[17] American and European companies dominate the licit market; Iran is reported to have launched mass production of SAMs.[18]

SAMs’ smaller and shorter-range cousins – shoulder-launched or man-portable air-defense systems (MANPADs) – have already proliferated widely.[19] MANPADs can threaten airliners at takeoff and landing and can shoot down lower-flying private aircraft but, unlike SAMs, cannot shoot down airliners at cruising altitudes. Most notoriously, Rwandan President Habyarimana’s plane was shot down by Hutu extremists in 1994, igniting that nation’s genocide.

There are emerging concerns about adapting MANPADs with surface-to-air guidance capacities which would make them effectively miniaturized SAMs: missiles with SAMs’ capabilities that a single person could launch.[20] These super-MANPADs could replace their low-tech predecessors with a capacity to randomly threaten airliners. If SAMs and other advanced missile capacities proliferate to non-State actors the way that MANPADs have proliferated, then civilian aviation could be imperiled.

**Legal Gaps in Preventing Missile Proliferation**

Efforts to protect civil aviation from external threats might be usefully directed to reducing unauthorized access to missiles with the range and accuracy to take down civilian airliners in flight. In this regard, however, the absence of legal constraints on transfers of anti-aircraft missiles to non-State actors deserves attention. Anti-aircraft missiles have generally escaped the net of international weapons control as their effects are too particularized to be considered weapons of mass destruction (WMD) (i.e., nuclear, biological, or chemical weapons), and they have a
critical national self-defense function. While transfers of WMD are controlled by many international conventions, there is no treaty regime for counteracting missile proliferation, and there is no enforceable global prohibition against transferring anti-aircraft missiles wherever and to whomever. Notably, United Nations Security Council Resolution 1540, which prohibits transfers of weapons of mass destruction to non-State actors, applies to long-range bomb-delivery missiles but not to anti-aircraft missiles.[21]

The export of missile technology is overseen by the Missile Technology Control Regime (MTCR), a voluntary arrangement among many missile-producing States, including Russia, that specifies common principles for preventing illicit transfer of missile technology.[22] The MTCR is also principally focused on missiles as weapons delivery systems, not for shooting down aircraft. More generally, it is not designed to criminalize missile transfers, nor does it specify enforcement measures against a State that proliferates missiles.

The recently adopted but not yet in force Arms Trade Treaty (ATT) establishes standards for regulating the trade in conventional arms (including missiles) in order to prevent their illicit trade. No State Party may transfer arms for use in the commission of grave international crimes, and each State Party must regulate arms brokering and must assess the risk that conventional arms exports will contribute to the commission of human rights violations.[23] Even if the ATT were in force and all relevant States were party to it, and even if it were verifiable that a State Party provided the weapon used in the MH17, the treaty does not specify enforceable consequences for States that proliferate weapons.

**Conclusion – Strengthening Aviation Security**

In addition to an act of mass murder, the explosion of MH17 exposed a huge gap in the international civil aviation system’s capacity to keep us safe, albeit a gap for which civil aviation is neither responsible nor capable of addressing on its own. It should be in everyone’s interests for national and international capabilities – technological as well as law enforcement – to be coordinated to prevent anti-aircraft missiles from being trafficked to non-State actors.

The proliferation of these missiles to persons or groups who are not authorized to have them should be clearly prohibited. As it is a crime to use anti-aircraft missiles against civil aviation, legal responsibility for an attack on a civilian airliner should fall on the missile proliferator. That there is now no legally binding system for tracking the missile back to its source, much less to have interdicted it before MH17 was shot down, and even less for holding the missile proliferators accountable should be unacceptable.

Consideration could also be given to safeguards limiting access to anti-aircraft missiles. To gain unauthorized access to nuclear weapons is very difficult (as it should be); safe storage and limited access controls are mandatory on States participating in the nuclear nonproliferation regime.[24] Comparable controls and responsibilities on anti-aircraft missiles could be made legally binding. Mandatory introduction of technology as simple as retina-scan ignition to launch a SAM would seem minimally appropriate – and might have prevented the launch of the missile that exploded MH17.

Ultimately, aviation communities and international security communities share a common interest in protecting civil aviation from missile violence. International law could help to align and advance this interest.

**About the Author:** Barry Kellman, an ASIL member, is Professor of Law and Director of the International Weapons Control Center at DePaul University College of Law.
Air and Missile Warfare 20-21 (2010).


