

B

Important Legal Preliminaries

Sovereignty

Rule 1

Sovereignty consists of the right of a State to exercise State functions to the exclusion of other States.

¹ States enjoy sovereignty over the nuclear weapons and facilities that are located on their territory and over any activities that are connected with such weapons and facilities. It is essentially a territorial notion, from which notions of jurisdiction (Rule 2 below), mutual recognition of immunities by States (Rule 4) and the requirement to exercise due diligence¹ derive. Accordingly, irrespective of the location from which nuclear weapon operations are conducted or where they have their effects, the persons involved will be subject to the jurisdiction of one or more States.

² A State enjoys sovereign authority in relation to nuclear and other weapons and associated equipment, persons and activities that are located on its territory, subject to international legal obligations.² This gives the State the right to apply the measures it sees fit in respect of nuclear weapon-related equipment, personnel and activities on its territory, subject to international law rules. It may enact and enforce laws and regulations concerning such equipment, persons and activities; it may protect such equipment; and it may safeguard relevant activities. This means that a State has the sovereign right and, arguably, responsibility to enact legislation to prescribe which nuclear weapon-related activities are prohibited, to criminalise prohibited activities, to provide for the arrangements that are needed to secure nuclear weapon sites and equipment and the

¹ On due diligence, see Commentary accompanying Rule 5 below, para. 1.

² There are legal limits on interference by a territorial State with diplomatic activities and personnel. Rights of innocent passage, archipelagic sea lanes passage and transit passage rights limit the territorial State's sovereignty in such areas; see UN Convention on the Law of the Sea, Montego Bay, Jamaica, 10 December 1982 (UNCLOS), Articles 17–19, 37–8, 52, 53.

information related to nuclear weapons and to implement other necessary arrangements. In short, it will be pursuant to a nation's sovereign rights and responsibilities that NC₃ procedures will be developed, applied and enforced.³ Clearly, a military operation undertaken against nuclear weapons, equipment or systems in another State and which causes damage will violate that other State's sovereignty unless, as is unlikely, the military operation is undertaken with the consent of the territorial State.

Jurisdiction

Rule 2

Subject to certain international obligations, a State may exercise its jurisdiction over persons engaged in nuclear operations on its territory, over nuclear weapons and associated equipment located on its territory and, outside of its territory, as permitted by international law.

1 The opening words of this Rule – ‘subject to certain international obligations’ – acknowledge certain limitations on the exercise by a State of territorial jurisdiction.⁴

2 There are criminal, civil and administrative aspects to the notion of jurisdiction. The notion extends to prescribing applicable rules, to enforcing those rules and to determining whether the rules have been breached. The physical or legal presence of a person or of an object on the territory of a State gives that State, respectively, *in personam* or *in rem* jurisdiction. *In personam* jurisdiction gives the State the right to create laws and regulations dealing with what persons on its territory may or may not do in respect of nuclear weapons and associated systems. It can also regulate the activities of private companies registered within its jurisdiction. The *in rem* basis for jurisdiction allows the State to pass laws dealing with the nuclear weapons and equipment as such. It is the physical presence of the person or object that is central to notions of territorial jurisdiction.

3 Territorial jurisdiction can be subdivided as follows. Subjective territorial jurisdiction applies where an event is initiated within the territory of a State but is completed somewhere else. Accordingly, if a cyber hacking operation against a nuclear command and control network were to be initiated within State A, but the targeted network belongs to and is located within State B, State A would have subjective territorial jurisdiction, even though the hacking operation has no effect within State A. That jurisdiction will extend to the right to prescribe applicable

³ See Rule 2 below and accompanying Commentary.

⁴ Consider combatant and diplomatic immunities and notions of a primary right to exercise jurisdiction provided for in certain status of forces agreements.

laws and regulations, the right to enforce those laws and regulations and the right to determine whether they have been breached. Alternatively, objective territorial jurisdiction grants a State jurisdiction over persons where an event was directed against persons or objects within that State from outside the State and has a substantial connection or impact on the State seeking to exercise jurisdiction. In the example given earlier in this paragraph, if the operation initiated from State A has a substantial impact on State B's nuclear command and control system – say, by breaking the communications link between superior commanders and an operational unit – that substantial connection with and impact on State B would be the basis on which State B might exercise objective territorial jurisdiction against the persons responsible for the operation, wherever they are located.

4 Jurisdiction claims may also be based on the nationality of the person undertaking an operation; the nationality of the victim; the threat that the operation creates to the national security of the State; or on the universal jurisdiction attaching to certain crimes, such as grave breaches of the Geneva Conventions. So, non-trivial interference with a State's nuclear command and control system would likely amount to a threat to its national security and would form the basis for a claim to jurisdiction based on the third ground listed earlier in this paragraph.

5 It follows from the above that more than one State may have concurrent jurisdiction in relation to a particular nuclear weapon- or nuclear system-related event. Imagine, for example, that a team of hackers located in State A intrudes into the computer system that controls the launching of State B's nuclear missiles. They manage to launch a missile that flies for a short distance before falling to Earth and exploding on the territory of State C near its border with State D. The blast wave causes deaths and damage in States C and D to nationals of both States and generates nuclear fallout that falls to Earth in States E and F, rendering many of their nationals sick, some with fatal consequences. State A's claim to jurisdiction would be on the basis that the operation was initiated in that State. States B, C and D would seem to have jurisdiction on the basis of objective territorial jurisdiction, and States C, D, E and F on the basis of passive personality (i.e. the nationality of the victims).

Jurisdiction on Ships, Aircraft and Other Platforms

Rule 3

If a nuclear weapon and/or associated equipment is located on a ship, aircraft or other platform on the high seas, in international airspace or in outer space, it is subject to the flag State's or State of registration's jurisdiction.

1 High seas, for the purposes of this Rule, are considered to be sea areas beyond the outer limit of the territorial sea of a coastal or archipelagic State and, due to

its general international character from the perspective of sovereignty, include the Exclusive Economic Zone.⁵ International airspace is the airspace above the high seas.⁶ Outer space, for the present purposes, refers to locations at a greater altitude than 100 km.⁷

2 Nuclear weapons, nuclear command, control and communications systems and associated equipment may be located on ships, aircraft, offshore installations or space vehicles, including satellites.⁸ The flag State principle governs jurisdiction rights with regard to ships carrying such weapons, systems and equipment, whereas the State of registration is the determinant with regard to aircraft and space objects. For offshore installations, applicable jurisdiction will be based on exclusive sovereign rights of the coastal State or on nationality.⁹ Moreover, flag- or registration-State jurisdiction does not exclude the possibility that other States may have jurisdiction on other grounds.¹⁰

Sovereign Immunity

Rule 4

Interference by a State with nuclear weapons, nuclear command, control and communications systems and associated equipment located on a ship, aircraft or other platform that enjoys sovereign immunity violates the sovereignty of the flag or registration State irrespective of where the ship, aircraft or other platform may be.

1 A sovereign ship, aircraft or other platform and all persons and things that are on it are immune from the exercise of jurisdiction over the ship, aircraft or platform by another State. Warships and ships that a State owns or operates and that it uses exclusively for government, non-commercial service¹¹ enjoy

⁵ UNCLOS, Article 86.

⁶ Ibid., Article 2.

⁷ UK Manual, para. 12.13; AMW Manual, Commentary accompanying Rule 1(a), paras. 4, 5.

⁸ Note that the stationing of nuclear weapons in orbit or on celestial bodies is prohibited by Article IV of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies, London, Moscow and Washington DC, 10 October 1967 (Outer Space Treaty).

⁹ *Tallinn Manual on the International Law Applicable to Cyber Warfare*, ed. M. N. Schmitt (Cambridge University Press, 2013) (Tallinn Manual 1.0), Commentary accompanying Rule 3, para. 3.

¹⁰ See Commentary accompanying Rule 2 above, para. 5.

¹¹ Consider Tallinn Manual 1.0, Commentary accompanying Rule 4, para. 6, citing Convention on Jurisdictional Immunities, Article 5.

immunity from the jurisdiction of any State other than the flag State.¹² State aircraft also enjoy sovereign immunity.¹³ Objects in outer space that are operated for non-commercial government purposes are also considered to enjoy sovereign immunity.¹⁴

2 To enjoy sovereign immunity, the relevant system or equipment must be devoted only to government purposes. In the unlikely event that a network is used partly for a State's nuclear weapons-related communications or control purposes and partly in support of commercial activities, the network will not benefit from sovereign immunity because of the commercial, non-governmental usage.

3 If an object benefits from sovereign immunity, any interference with it breaches international law. Prohibited interference might involve damaging the object or adversely affecting its performance to a significant degree. The mere fact that a platform, such as a military aircraft, enjoys sovereign immunity does not exempt it from the obligation to comply with international law rules, such as the requirement to respect the sovereignty of other States. If, for example, a military aircraft, whether nuclear-armed or not, enters the airspace of a foreign State without permission, the intruded State has the right to take necessary action to secure its sovereign rights, which may include the use of force. Consider, for example, a situation in which a warship belonging to State A, while located in the territorial sea of State B, fires missiles against nuclear weapons facilities located in State C. Because such activities by the warship do not comply with the restrictions that apply to innocent passage through territorial waters, State B may, notwithstanding the warship's sovereign immunity, take action to prevent its non-innocent passage.¹⁵

4 During periods of armed conflict, the rules as to sovereign immunity and inviolability cease generally to apply in the relations between the parties to the armed conflict, and objects that would ordinarily enjoy such immunity or inviolability may become the object of attack as military objectives (Rule 34 below) or may be liable to seizure as booty of war.¹⁶

¹² UNCLOS, Articles 95, 96.

¹³ UK Manual, para. 12.6.1; AMW Manual, Commentary accompanying Rule 1(cc), para. 6.

¹⁴ Tallinn Manual 1.0, Commentary accompanying Rule 4, para. 2, citing Convention on Jurisdictional Immunities, Article 3(3).

¹⁵ UNCLOS, Articles 19, 25(1), 32; consider also Rule 5 below and accompanying Commentary.

¹⁶ AMW Manual, Rule 136(a) and accompanying Commentary. Note, however, that diplomatic archives and communications are protected under the Vienna Convention on Diplomatic Relations, Articles 24, 27.

Acts Adversely Affecting Other States

Rule 5

A State must not knowingly allow the nuclear weapon capabilities, including nuclear command, control and communications systems and associated equipment, that are located in its territory or under its exclusive governmental control to be used for acts that adversely and unlawfully affect other States.

1 Nuclear weapons, nuclear command, control and communications systems and associated equipment that are located on a State's territory, or that are located elsewhere but over which it exercises control, are covered by this Rule. The Rule reflects the view that, as '[b]etween independent States, respect for territorial sovereignty is an essential foundation of international relations' and the appreciation that a State is under an obligation 'not to allow knowingly its territory to be used for acts contrary to the rights of other States'.¹⁷ This translates into an obligation ('obligation of due diligence') to take suitable steps to protect those rights of other States.¹⁸ The Rule extends to acts that potentially or actually inflict serious damage on persons or objects that are protected by the target State's sovereignty.

2 So the Rule applies to all unlawful acts adversely affecting another State's territory or objects that are protected under international law. The adverse effect will not necessarily consist of damage. Accordingly, if State A allows a hacking group that is located on its territory to use computer equipment that is located there to hack into and corrupt a nuclear communications system located in State B, this Rule will have been breached. If State A was unaware of the activities of the hacking group but had been notified, either by officials from State B or from another State, that the interference and corrupting activities were taking place and failed to take reasonable action to stop the activities, the Rule will also have been broken. Similarly, the Rule will also apply if, in the example set forth in this paragraph, the hacking group is using computer equipment that is located outside State A territory but that is subject to State A's exclusive control (e.g. by virtue of an agreement or arrangement between State A and the host State or, for example, because the equipment is located on a platform on the high seas or in international airspace).

3 The 'suitable steps' referred to in paragraph 1 may consist of action taken either by State organs – such as members of the armed forces, security service or intelligence officials – or by private undertakings. The requirement is that

¹⁷ ICJ Nicaragua Judgment, para. 202; ICJ Corfu Channel Judgment, 22.

¹⁸ ICJ Tehran Hostages Judgment, paras. 67–8.

all means at the disposal of the relevant State be used to put an end to the acts that constitute breaches of this Rule.

4 A State will be regarded as having knowledge for the purposes of this Rule if State organs become aware of the activity, whether directly or by being given reliable information that the activity is taking place.

5 In the example given in paragraph 2, if State A has knowledge of the activity that is adversely affecting State B and fails to take suitable steps as required by this Rule, State B may have the right to take proportionate action in response. Depending on the relevant circumstances, such action may take the form of countermeasures,¹⁹ the use of force in self-defence (Rule 11 below) or, during an armed conflict, the use of force under the law of neutrality (Rule 67 below).

State Responsibility

Rule 6

A State bears international legal responsibility when conduct (an act or omission) is attributable to that State under international law and if the act or omission consists of a breach of an international legal obligation of that State.

1 This Rule is based on the Draft Articles on State Responsibility,²⁰ Articles 1 and 2. An act or omission is internationally wrongful if, for example, it consists of a use or threat of force in breach of Article 2(4) of the UN Charter (Rule 8 below), a breach of the law of armed conflict prohibition on making civilians the object of attack (Rule 28 below), an unlawful intervention in the internal affairs of another State, a violation of the sovereign immunity rights of another State (Rule 4 above) or a breach of Rule 5 above. There are numerous other examples of activities that constitute breaches of international law.

2 For an act or omission to come within this Rule, three elements must be present. There must be an act or a failure to act; the act or failure must be attributable to a State; and the act or failure to act must constitute a breach of an international law obligation.

3 Acts or omissions by an organ of a State are always attributable to the State.²¹ Organs of a State include armed forces, internal security, customs,

¹⁹ See Commentary accompanying Rule 7.

²⁰ International Law Commission, Responsibility of States for Internationally Wrongful Acts, Annex to UNGA Resolution 56/83, 12 December 2001 (Draft Articles on State Responsibility).

²¹ *Ibid.*, Article 4(1).

intelligence and State agencies.²² Irrespective of whether the organ was acting in accordance with or outside its instructions, or indeed without any instructions, if the organ is acting in an apparently official capacity, attribution will be automatic.²³ So, *ultra vires* acts or omissions by an organ will attract attribution, whereas purely private conduct will not. For example, if in peacetime a senior military commander of State A threatens to order an air strike against the armed forces headquarters of State B, this threat in breach of Article 2(4) of the UN Charter would be attributable to State A even if the commander were acting outside or contrary to his or her instructions. It would be unlikely that such a threat could sensibly be regarded as having been purely private conduct.

4 Acts by a person or group of persons ‘shall be considered an act of a State under international law if the person or group of persons is in fact acting on the instructions of, or under the direction or control of, that State in carrying out the conduct’.²⁴ The instructions or direction or control – any one of the three suffices – must relate to the relevant conduct. The ICJ has stated that a State has responsibility for the acts, and presumably for the omissions, of non-State actors if it has ‘effective control’ over the actors.²⁵ The International Criminal Tribunal for the Former Yugoslavia decided that, when determining the nature of an armed conflict in connection with criminal proceedings, ‘overall control’ suffices for the activities of a non-State actor to be regarded as those of the controlling State.²⁶ While a distinction can be drawn between the test for determining whether an international or non-international armed conflict is taking place and the test for allocating State responsibility,²⁷ under the less demanding criterion of ‘overall control’ something more than financing and equipping of the armed group would be required, with involvement in planning and supervision of the group’s military operations also being looked for.²⁸ If the attribution of acts of individuals or groups not organised into military structures is being considered, an overall or general level of control will not suffice. There must have been specific instructions or directives aimed at the commission of specific acts, or there must have been public approval of

²² Persons or organisations authorised under a State’s domestic law to exercise governmental authority are treated like State organs, such that their acts are attributable to the State if the individual or organisation is exercising governmental authority.

²³ Draft Articles on State Responsibility, Commentary accompanying Article 4, para. 13.

²⁴ Draft Articles on State Responsibility, Article 8.

²⁵ ICJ Nicaragua Judgment, para. 115.

²⁶ Tadić Appeals Chamber Judgment, paras. 131, 145.

²⁷ ICJ Genocide Judgment, paras. 403–5.

²⁸ Tadić Appeals Chamber Judgment, para. 145.

those acts after their commission.²⁹ Political statements that are broadly supportive of the activities of the group or individuals, but do not go beyond that, will not generally suffice for attribution purposes.

5 Consider a situation in which citizens from State A cross the border into State B, use a tracked construction vehicle to smash through the perimeter fence of State B's nuclear command and control facility and start to demolish one of the buildings at that facility. If the intruding civilians were acting on their own initiative – say, because they wanted simply to demonstrate against State B's possession of nuclear weapons – their actions could not, without more, be attributed to State A and State B would have jurisdiction to deal with the criminal offences they have committed. If, however, it became clear that the intruding civilians had received specific instructions from State A authorities to damage the targeted facility and direction as to how this should be achieved, the acts of the civilians would be attributable to State A, giving State B the potential right to undertake countermeasures (on which, see paragraph 8 of this Commentary).

6 If assistance by a State does not amount to the instructions, direction or control specified in the preceding paragraph, while the conduct of the individual or group will likely not be attributable to the State, such acts may nevertheless be internationally wrongful.³⁰ However, Article 11 of the Draft Articles on State Responsibility provides: 'Conduct which is not attributable to a State under the preceding articles shall nevertheless be considered an act of that State under international law if and to the extent that the State acknowledges and adopts the conduct in question as its own.' There must have been both acknowledgement and adoption by the supporting State and this will require that the State goes beyond mere endorsement or tacit approval of the activities of the individual or group.³¹ Consider again the situation described in the previous paragraph, but assume that no instructions or direction had been given by State A and that it exercised no control. At the time of the acts no attribution to State A would be possible. If, however, after the intrusion had taken place and after the damage had been caused to the building, State A's prime minister were publicly to say, 'We, the government were delighted to see the actions our citizens took last night. I urge the government of State B to refrain from any future nuclear activity; otherwise we, State A, will do nothing to prevent further activities by our citizens.' Such words would possibly be seen as amounting to acknowledgement and

²⁹ Tadić Appeals Chamber Judgment, para. 132.

³⁰ ICJ Nicaragua Judgment, para. 242.

³¹ Draft Articles on State Responsibility, Commentary accompanying Article 11.

adoption of the previous actions of the civilians, which could as a result be attributed retrospectively to State B. So, in situations where, at the time of the activity, the requirements of Article 8 of the Draft Articles on State Responsibility have not been met, attribution to a State of actions by an individual or a group may be based on the subsequent action of, or statements made by, the State.³²

7 Acts that do not breach international law, such as espionage *per se*, are not addressed by this Rule. An internationally wrongful act or omission occurs only if what is done, or omitted, reflects all of the required elements of the corresponding legal breach. Consider a group of activists operating from the territory of State A and inflicting serious damage on a missile launching site in State B. Unless it had positive or constructive knowledge of the activists' activities (see Rule 5), State A cannot be held internationally responsible, because the conduct of private persons cannot be attributed to State A. Alternatively, consider a secret agent of State A retrieving crucial information from an NC₃ system in State B. State B's agents, in trying to terminate the extraction of information, by mistake delete all data resident in the system, thus rendering it dysfunctional. State A has not caused those consequences, and the extraction of information is an act of non-prohibited espionage. Accordingly, State A cannot be held internationally responsible.

8 A State that suffers injury or damage as a result of an internationally wrongful act by another State may, subject to certain limitations,³³ undertake proportionate countermeasures against that State.³⁴ Countermeasures consist of necessary and proportionate action that the injured State takes against the State that has violated international law. The injured State's action would itself be unlawful but for the illegality of the prior activities of the State that has violated international law. The sole purpose of the countermeasures must be to induce the latter State to comply with international law or directly to secure that compliance. Once the violations of international law have come to an end, the injured State ought not to undertake or continue with countermeasures. While the injured State should, at least if feasible, first call upon the other State to cease its internationally wrongful activity, the effective preservation of its rights under international law may require the injured State to take more immediate action.³⁵

³² Tehran Hostages Judgment, para. 74.

³³ See Draft Articles on State Responsibility, Article 50.

³⁴ *Ibid.*, Articles 22, 49–53.

³⁵ Consider *ibid.*, Articles 52(1)(b), 52(2).

9 There is a body of opinion according to which, in exceptional circumstances, a State may resort to countermeasures that involve the use of force if the prior internationally wrongful act itself consists of a use of force that does not reach the threshold of an armed attack. This aspect is discussed in paragraph 1 of the Commentary accompanying Rule 7 below.

Countermeasures

Rule 7

If a State commits an internationally wrongful act against another State, the victim State may have the right to take countermeasures.

1 If a State is the victim of an internationally wrongful act committed by another State, the victim State has the right to take countermeasures. These are acts or omissions to act that would violate a legal obligation owed by the victim State to the State that committed the prior internationally wrongful act were they not being undertaken as countermeasures. The taking of countermeasures under such circumstances is permitted under international law. The Draft Articles on State Responsibility, in Article 50(1)(a), provide that '[c]ountermeasures shall not affect: (a) the obligation to refrain from the threat or use of force'. As will be discussed in the commentaries on Rules 8 and 11, not every use of force qualifies as an armed attack, which is understood as the gravest form of a use of force. Arguably, a use of force not reaching the threshold of an armed attack would entitle the victim State to respond by means of proportionate countermeasures of a military nature involving action that remains below the threshold of an armed attack.³⁶ However, such an interpretation is not generally adopted by States and it would be contrary to the object and purpose of *jus ad bellum*. Accordingly, countermeasures do not involve the use of force and must therefore be distinguished from self-defence action referred to in Rule 11. Countermeasures also must be distinguished from reprisals (on which, see Rule 76). Thirdly, countermeasures must be distinguished from retorsion, which consists of lawful but unfriendly acts.³⁷

2 Countermeasures must have the purpose of inducing the State against which they are taken to come back into compliance with the international law obligations it owes to the victim State. Countermeasures may not affect fundamental human rights, nor may they violate a peremptory norm. They must also be proportionate to the damage done to the victim State.³⁸ The act or

³⁶ See ICJ Oil Platforms Judgment, Dissenting Judgment of Judge Simma, paras. 13, 14.

³⁷ Draft Articles on State Responsibility, chapeau to Chapter II of Part Three, para. 3.

³⁸ Tallinn Manual 2.0, Rules 22, 23.

series of acts to which a countermeasure is responding must have been undertaken by, or at least must be attributable to, the State against which the countermeasure is directed.

3 Consider a situation in which armed force not rising to the level of an armed attack is used by State A against State B's nuclear weapons force command and control system, causing significant physical damage. State A has breached Article 2(4) of the UN Charter and this constitutes an internationally wrongful act to which State B may respond by taking lawful countermeasures. State B decides that the best way of inducing State A not to repeat its use of force is to confiscate certain financial assets that State A holds on deposit in State B's banking system. Such action would amount to a breach of the international financial arrangements under which the assets were deposited, but would be a lawful countermeasure in response to the use of force.