

BILATERAL AGREEMENTS ON SHUTTLE CONTINGENCY LANDING SITES
PRACTICAL APPLICATION OF THE BASIC CONCEPTS AND PROVISIONS OF THE
OUTER SPACE TREATY AND OTHER AGREEMENTS IN AIR AND SPACE LAW

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[Abstract]

Since 1980s, the United States has been concluding a series of bilateral agreements on shuttle contingency landing sites agreements with Senegal, Spain, France, Chile, Morocco, Gambia, Germany and Japan in order to secure and facilitate the necessary assistance in the event of an emergency landing of the space shuttle. These agreements provide for the airport in service, notification in advance, priority in cleaning of the air space, acceptance of personnel, supply of equipment, responsibility for compensation and settlement of disputes. They embody the basic concepts and principles of the Outer Space Treaty as well as other agreements of air and space law. Therefore, naturally, they offer good examples of the practical application of the fundamental space treaties in addition to their practical importance in the event of emergency landing. Nevertheless, space lawyers have paid very little attention to these agreements. In this paper, the above-mentioned application is made clear in detail. Legal characteristics of each agreement are also considered through comparative study.

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1. Major Characteristics and Provisions of the Bilateral Agreements on Shuttle Contingency Landing Sites

The Bilateral Agreements on Shuttle Contingency Landing Sites which the United States has concluded so far are as follows :

[1] Agreement between the United States of America and Senegal, Effected by Exchange of Notes at Dakar on 15 December 1982 and 31 January 1983, Entered into Force on 31 January 1983 (TIAS 10811, Extended, Effective on 1 January 1988 by Exchange of Notes at Dakar on 2 February and 3 September 1988), [2]Agreement on Space Cooperation between the United States of America and Spain, Effected by Exchange of Memoranda at Madrid on 31 August and 4 September 1984 (TIAS 11067), [3] Agreement between the Government of the United States of America and the French Republic Concerning Emergency Use of the Combined Forces Base at Hao, French Polynesia, by the United States Shuttle, Signed at Paris on 6 September 1984 and Entered into Force on the same day (TIAS 11163),

[4] Agreement between the Government of the United States of America and the Government of the Republic of Chile Concerning the Use of Mataverí Airport, Isla de Pascua, as a Space Shuttle Emergency Landing and Rescue Site, Signed at Santiago on 2 August 1985 and Entered into Force on 6 November 6 1985 (TIAS 11248) , [5] Agreement Between the United States National Aeronautics and Space Administration (NASA) and the Royal Moroccan Air Force (RMAF) Concerning the Use of Ben Guerir Air base as a Space Shuttle Emergency Landing Sites, Signed at Rabat on 21 January and at Washington, DC on 28 January 1987 and Entered into Force on 28 January 1987 (KAV 1428), [6] Agreement between the United States of America and the Gambia Concerning the Use of Banjul International Airport as a Space Shuttle Emergency Landing Site (TIAS 12148), [7] Federal Republic of Germany, Foreign Office, Doc.No.423-455.000 USA of 22 September 1983, Ref.: Emergency Landing of the US Space Transportation System “ Space Shuttle ” in the Federal Republic of Germany (M.Benkö and K-U Schrogl, International Space Law in the Making, 1993, pp.120-121), [8] Agreement between the United States of America and Japan, Effected by Exchange of Notes at Tokyo on 28 January 1980 and Entered into Force on the same day (TIAS 9915), Amended and Extended by Exchange of Notes at Tokyo on 11 November 1982 and Entered into Force on the same day (TIAS 10607. On 24 January 1985, another agreement was effected and entered into force. by exchange of notes. KAV 1108. However, it has not been published yet.)

First of all, these agreements except [8]

provide for specific sites for shuttle contingency landing, namely Dakar-Yoff International Airport ([1]), Rota Naval Base and Zaratoga and Moron Air Bases ([2]), Combined Forces Base at Hao, Tuamotu archipelago, French Polynesia ([3]), the Matayeri International Airport, Isla de Pascua ([4]), Ben Guerir Air Base ([5]), Yundum (Banjul International) Airport ([6]), Cologne/Bonn Airport ([7]). The contracting States shall authorize the landing and the recovery of Space Shuttles in the event of an emergency. An emergency is understood to be any event after the launching of a Space Shuttle which endangers its crew, such that there is no possibility of returning to the United States or reaching outer space ([4], Art. 1).

Secondly, as to the flight programme. Some of the agreements provide that the United States shall notify the Landing States, in advance of the launch, of the flight programme([1] Art.3, [3] Art.2, para.1, [4]Art.2, [5] Art.3, [6] Art.4). In the case of notification, the consent of the landing State is not necessary. [1] provides for the deadline (three months in advance, Art.3), while others do not have. As to [2], the United States shall submit the correspondent request for each flight at least 90 days in advance of the launch (Art.2). Spain shall reply 60 days before the launch (Art.4), which means that, quite different from other agreements stipulating for notification, it can refuse the request for the possible emergency landing.

Thirdly, when the emergency landing site is a airport for civil aviation, the cleaning of the air space is necessary. On this point, [1] Art.3 and [6] Art.6 provide as follows : Due to Space Shuttle's restricted maneuverability, the

needed priority in cleaning of air space shall be provided by the (landing State's) authorities. [4] has a unique provision to the effect that both parties shall establish acceptable procedures to exchange information on regular flight schedules and to resolve any conflicts between the itineraries of the commercial airlines which use the Airport (Art.15).

Fourthly, as to the dispatch of personnel prior to the launch and/or in the emergency landing. [1](Art.4), [4](Art.3, para.A), [5](Art.4) and [6](Art. 7) provide that the United States shall, prior to each launch, deploy advance support personnel to the other Contracting State in order to perform landing site preparatory activities. The number of the personnel is not no exceed 30 ([1]), 23 ([4], for a period of not more than three weeks) or 40 ([5]). The United States is authorized to send (additional) personnel and equipment to prepare the Space Shuttle, its crew and its payloads for return to the United States, following an emergency landing ([1] Art.5, [3] Art.4, [6] Art.8) or in the event of an emergency landing ([4] Art.3, para. A, [5] Art.6). [4] provided that the number of the personnel will not exceed 450 persons, for not more than 120 days each, with not more than 400 persons at any one time (Art.3 para.A). As to [2], the dispatch of the personnel is included in "the specific measures which might have to be adopted in Spain before, during and after the flight "(Art.3, para. a) and subject to the consent of Spain (Art.4). Personnel whose entry is authorized by Spain shall not exceed 400 persons and 90 days (Art.7). The personnel whose entry is authorize shall be employees of the Government of the United States or its

contractors and shall be citizens of the United States or citizens of the landing State ([1]Art.6, [2]Art.7, [5]Art.8, [6]Art.9) or simply nationals of the United States ([4] Art.3, para.B), unless agreed otherwise. Even when the visa is required for their entry, it can be obtained, in an emergency, at the airport ([1] Art.6, [6] Art.9). The personnel shall enjoy no diplomatic immunity ([4] Art.3 para.C).

Fifthly, as to the obligations of the landing State. The landing State shall take appropriate measures to assure the safety of the Space Shuttle and its payloads ([1] Art.7) , within the base unless the space vehicle and its payloads are placed in a support installation ([2] Art.8), or shall assist the United states or shall make best efforts in the search and the rescue operation, and in the protection of the Space Shuttle, its astronauts and all property and personnel under the United States jurisdiction ([3] Art.7, [4] Art.11 para.A, [5] Art.8, [6] Art.10, [7], [8]). The landing State shall authorize the United States to use the radio frequencies ([3] Art.6) or the communication services of the landing State and its instrumentalities shall be used ([5] Art.12, [6] Art.13). Transport to the landing site shall be arranged ([1] Art.5, [4] Art.6 para.A, [6] Art.8) . As to duties and taxes, they shall not be levied on imported property nor removal of Space Shuttle, its payloads and the personal effects of the members of the crew ([1] Arts.11 and 12, [4] Art. 6, [5] Arts. 13 and 14, [6] Art.14).

Sixthly, the United States shall reimburse the landing State for all costs incurred directly related to fulfilment of the terms of the agreement. ([1] Art.16, [3] Art.8, [4] Art.12, [5] Art.19, [6] Art.21). Indirect costs incurred

by one side shall not be charged to the other Party ([5] Art.19, [6] Art.21).

Seventhly, on the responsibility for compensation for damage and loss caused. Most of the eight agreements have a provision to the effect that the United States shall be liable for compensation for damage and loss caused by the emergency landing and recovery in accordance with the terms of the Convention on International Liability for Damage Caused by Space Objects ([2] Art.10, [3] Art.9, [4] Art.13 para.B, [5] Art.11, [6] Art.12, [8]). As to [1], Art.9 concerning compensation does not mention the Convention, although Art.21 provides that the claims commission shall apply the rules established by the Convention. The extent to which the landing State shall be liable is not the same. [1] provides that " the Government of Senegal shall not be held responsible unless damage or loss to persons associated with the space shuttle program in Senegalese territory results, wholly or partially, from gross negligence, or an act, or an omission committed with malicious intent by Senegalese people " (Art.9), while [2] provides that " the Government of the United States shall waive any claims against the French Government for any damage that could be caused to its own personnel and equipment and those of its contractors " (Art.9, para.2).

Eighthly, on the settlement of disputes. Many of the agreements have a provision on consultation. Namely, either party may request consultation concerning any matter related to the interpretation or application of the agreement ([1] Art.21, [3] Art.10, [4] Art.16, [5] Art.23, [6] Art.26). [1], [3], [5] and [6] provide that the consultations shall be held within 60 days of receipt of such request. [3]

and [4] have a provision to the effect that disputes arising from the interpretation or application of the agreement which cannot be settled through the consultations shall be submitted to the mandatory arbitration composed of the three arbitrator at the request of the either Party ([3] Art.9 para.3 and 4, [4] Art.17). As to the matters relating to claims for compensation, the Claims Commission is provided in [1] Art.21 and [3] Art.10 para.2.

[2] is unique in providing that " in every case, prior to definitive determination of any claim, the concurrence of the PMAA(Joint Committee for Politico-Military Administrative Affairs) will be obtained ".

These are the major characteristics and provisions of the agreements. Also to be pointed out additionally here are unique provisions. As to [2], the United States reaffirms to Spain its long-standing obligation not to place in orbit around the earth any object carrying nuclear weapons, install them on celestial bodies, or station them in outer space in any other manner (Art. 5). As to [3], two unique provisions are worth referred. One is Art.2 para.4, which provide that the United States agrees to cease, for periods not exceeded 48 hours, all activities conducted on the Base, whenever it is required to do so by the France. The other is Art.3 para.3, stipulating that France reserves the right to refuse access to its territory or to terminate the visit of the persons for reasons of law and order or security. As to [4], the preamble refers to the environment, stating that the interest of the both Parties should allow the maintenance and normal development of the ecological environment of Isla de Pascua. Another remarkable provision is Art.5, which provides : " With the purpose of making

possible and enhancing safety in the operations and activities foreseen in this Agreement, the Government of the United States shall extend and improve the present landing strip of the Airport-- .” As to [6], it is agreed that aircraft of the United States Government may be predeployed to perform whether monitoring, provide search and rescue capability, and medical evacuation support in advance of specific Space Shuttle flight missions (Art.18). [7] and [8] are concerning the emergency landing in highly developed States. They lack the detailed provisions, although confidential side agreements can exist.

In total, the agreements with developing States, namely [1] and [6] are more favorable to the United States than other agreements. Reciprocity does not exist in the agreements. However, it is easily conceivable that the favorable agreements are in exchange for the economic aid the United States gives to the developing States.

2. The Relevance to the Outer Space Treaty and Other Agreements of Air and Space Law

Art.5 of the Outer Space Treaty provides that the State Parties shall render to astronauts all possible assistance in the event of emergency landing on the territory of another State Party. Art.2 of the Rescue Agreement provides that, if owing to emergency or unintended landing, the personnel of a spacecraft land in territory under the jurisdiction of a Contracting Party, it shall immediately take all possible steps to rescue them and render them all possible assistance. The bilateral agreements on shuttle contingency landing sites are in line with these

basic provisions and embody detailed rules on emergency landing. Art.5 of the Outer Space Treaty is mentioned in [4]and [8], while the Rescue Agreement is mentioned in [4].

As to the notification, Art.1 of the Rescue Agreement includes even the case when a totally unexpected emergency landing occurs without any notification of the flight programme. However, in reality, the existence of a prior notification of the flight programme will make prepare the territorial State for potential emergency landing and lessen the psychological opposition to the emergency landing that might cause damage.

The cleaning of the air space is and should be in line with Art.9 of the Chicago Convention on prohibition zone.

When an emergency landing occurs, the personnel of space shuttle shall be safely and promptly returned to representatives of the United States in accordance with Art.4 of the Rescue Agreement. The Space Shuttle itself is returned to or held at the disposal of the representatives of the United States in accordance with Art.8 of the Outer Space Treaty and Art.5 para.3 of the Rescue Agreement.

Expenses incurred in fulfilling obligations to recover and return the Space Shuttle shall be borne by the United States in accordance with Art.5 para.5 of the Rescue Agreement. The provisions, contained in some bilateral agreements, concerning the reimbursement to them landing States for costs incurred are in line with the above-mentioned basic rule.

As to the responsibility for compensation for damage and loss caused, Art.2 of the Liability Convention provides that a launching State shall be absolutely liable to pay compensation for damages caused by its space

object on the surface of the earth or to aircraft flight. [2],[3],[4],[5],[6] and [8] mention the Liability Convention. Thus, the United States owes the absolute liability. Exception to Art.2 is provided by Art.6 para.1, which states that exoneration from absolute liability shall be granted to the extent that a launching State establishes that the damage has resulted from gross negligence or from an act or omission done with intent to cause damage on the part of a claimant State. [1] Art.9 is in line with the provision.

As to the claims for compensation, the Claims Commission under Art.14 of the Liability Convention is established after a one year diplomatic negotiation. This is also applied in the case of emergency landing, in general.

3. Emergency Landing under General International Law

Landing of a space object without a permission of the territorial State can be wrongful because it might violates the territorial sovereignty, although there are controversies whether a space object can enjoy innocent passage over the foreign air space. However, according to the Draft Articles on State Responsibility prepared by the International Law Commission (UN Doc. A/51/10), the wrongfulness of an act can be precluded if the act comes under one of the following circumstances : consent(Art.29), countermeasures in respect of an internationally wrongful act(Art 30), force majeure and fortuitous event (Art.31), distress (Art. 32), state of necessity (Art. 33) and self-defence (Art. 34). The existence of a bilateral agreement on shuttle emergency

landing sites gives a clear and ample basis of consent. The Outer Space Treaty and the Liability Convention can also be interpreted as giving consent on emergency landing. Thus, between or among the Contracting States, emergency landing itself is not wrongful.

The problem lies when a landing State is not a Party to the Treaty or the Convention, when general international law governs. As a matter of interpretation, the possible wrongfulness of emergency landing can be precluded because it can come under force majeure and fortuitous event or distress. Art.31 para.1 of the Draft Articles on State Responsibility provides :

The wrongfulness of an act of a State not in conformity with an international obligation of that State is precluded if the act was due to an irresistible force or to an unforeseen external event beyond its control which made it materially impossible for the State to act in conformity with that obligation or to know that its conduct was not in conformity with that obligation. Art.32 para.1 provides : The wrongfulness of an act of a State not in conformity with an international obligation of that State is precluded if the author of the conduct which constitutes the act of that State had no other means, in a situation of extreme distress, of saving his life or that of persons entrusted to his care.

Thus, the possible wrongfulness of emergency landing can be precluded irrespective of the bilateral agreements, the Outer Space Treaty or the Liability Convention. However, the preclusion of wrongfulness does not include that of responsibility. Art.35 of the Draft Articles provides : Preclusion of the wrongfulness of an act of a State by virtue of the provisions of articles 29,31,32 or 33 does not prejudice any

question that may arise in regard to compensation for damage caused by that act.

Therefore, compensation for damage or loss caused is a must.

Even if the wrongfulness of an emergency landing is precluded under general international law, this does not affect the importance of bilateral agreements on shuttle contingency landing sites. Even the Outer Space Treaty and the Rescue Convention are not enough for an emergency landing. To provide details in a bilateral agreement is essential for a smooth and successful emergency landing, which insures the launching of Space Shuttle.

Thus, the contracting States of the bilateral agreements on shuttle emergency landing sites are greatly contributing and cooperating to the Space Shuttle projects. When the contracting States will be involved in the launching of their Space Shuttles in the future, the United States should conclude a similar agreement and offer emergency landing sites for them in accordance with good faith and reciprocity, the very fundamentals of international relations.