Airline service between Iran and the United States last operated in 1979, when the U.S. government imposed an embargo on flights following the Iran hostage crisis. Since then, travel and air cargo shipments between the two countries have been routed through third countries, and their extent has been limited by U.S. sanctions. The July 2015 agreement in which Iran accepted strict limits on its nuclear program in exchange for a broad lifting of U.S., European Union, and United Nations sanctions has raised the prospect that bilateral air service could resume. Certain sanctions were lifted on January 16, 2016, after the International Atomic Energy Agency certified that Iran had complied with requirements of the agreement. However, air travelers should not expect to catch direct flights between the United States and Iran any time soon.

Generally speaking, airlines provide international services on the basis of bilateral or multilateral agreements among governments. The U.S. Department of Transportation (DOT) Office of the Assistant Secretary for Aviation and International Affairs, with assistance from the U.S. State Department, is responsible for negotiating air service agreements and awarding U.S. airlines the right to offer services provided for in those agreements.

An air service agreement between the United States and Iran has been in place since 1973. Although the two countries severed diplomatic ties in 1980, the air service agreement was never terminated pursuant to Article 14. U.S. officials consider the agreement no longer binding, as it was signed under the Iranian monarchy and has not been endorsed by an Iranian government since the monarchy was overthrown in 1979. Hence, a new air service agreement would need to be negotiated before service could begin. According to DOT, no U.S. or foreign carrier has expressed an interest in providing air service between the United States and Iran, making it unlikely that such a negotiation would be a priority.

An air service agreement between the U.S. and Iranian governments is only one of several requirements that would have to be met before U.S. air carriers could serve Iran or Iranian airlines could fly to the United States. Restoring commercial air service would involve the U.S. Treasury, the Department of Commerce, and certain agencies of the Department of Homeland Security such as Customs and Border Protection (CBP) and the Transportation Security Administration (TSA):

- Before permitting an Iranian carrier to begin U.S.-bound services with its own aircraft and crews, the Federal Aviation Administration (FAA) would have to assess Iran's aviation safety oversight system to determine whether it meets international standards under the FAA International Aviation Safety Assessment (IASA) program.
- DOT would need to grant economic authority to U.S. carriers wishing to provide service.
- FAA would need to grant appropriate certification and safety authority to U.S. and foreign carriers wishing to
provide service.

- TSA and CBP would need to determine whether Iranian and/or other foreign airports meet security requirements to be the last points of departure prior to flight arrival in the United States, and also to ensure U.S. and foreign airlines wishing to provide service meet security requirements.

- Issues related to U.S. sanctions against Iranian carriers might need to be resolved. Although Iran Air was released from previous sanctions, another major Iranian airline, Mahan Air, remains under the terrorism-related sanctions imposed by the United States.

Negotiation of a new air service agreement with Iran may be premature under current conditions, because Iranian carriers may lack aircraft capable of providing service between the two countries. Previous sanctions that blocked Iran from purchasing commercial aircraft from the United States and Europe and from obtaining spare parts were only partially lifted in November 2013, when the United States agreed to the temporary licensing of "the supply and installation in Iran of spare parts for safety of flight for Iranian civil aviation and associated services." In the July 2015 agreement, the United States agreed to license commercial aircraft sales to Iran.

No such sales have yet occurred, leaving Iran with one of the oldest airline fleets in the world: the average Iranian passenger plane is 25 years old, according to industry data. And even if Iran is able to obtain modern aircraft, it may take some time for Iranian air carriers to establish reliable maintenance operations that meet U.S. standards. International isolation and economic sanctions by the West have denied Iran access to the technology and spare parts necessary to update and maintain its fleet, and have limited all Iranian aircraft operators' ability to obtain modern avionics equipment. The continued use of aging Russian aircraft has contributed to the poor safety record of the Iranian civil aviation sector. There have been reportedly more than 200 accidents in Iran since 1990, claiming over 2,000 lives.

The challenges that Iranian airlines face extend beyond aircraft operation. The existing airport infrastructure, reportedly, mostly depends on 1970s-era equipment. Iran's airports would need upgrades to air traffic control systems, navigational aids, communications, gates, and facilities management systems to meet current international standards for safety and security.

At present, it appears that most travelers between the United States and Iran make connections in a Turkish, Persian Gulf, or European airport. Two U.S. airlines recently announced that they would cease certain flights to the Persian Gulf region, suggesting that they see limited near-term commercial opportunity in the region and may not attach great importance to initiating passenger air service to Iran.