

**Memorandum for the Joint Committee
on
New Aircraft in Japan (MV-22)**

References:

a. **The Agreement Under Article VI of the Treaty of Mutual Cooperation and Security Between the United States of America and Japan Regarding Facilities and Areas and the Status of United States Armed Forces in Japan (SOFA)**

b. **Statement on New Aircraft in Japan (MV-22)**

1. **This memorandum, including reference b, confirms the safety of the MV-22 flight operations and addresses the basing and operations of the following new aircraft into Japan: MV-22.**

2. **Reference b includes a description of the aircraft, its safety record, training of its aircrew and maintenance personnel, and flight patterns and operations over and surrounding US facilities and areas, and flight operations in training areas and other airspace.**

3. **The Governments of the US and Japan will continue their close cooperation on issues of mutual interest, to include flight safety, noise abatement, and low-level flight training, through the Joint Committee and its various subcommittees.**

Approved by the Joint Committee on 19 September 2012.

JUNICHI IHARA

Japanese Representative

Joint Committee

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Major General, US Marine Corps

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New Aircraft in Japan (MV-22)

1. **Overview:** The United States Marine Corps (USMC) will upgrade its aircraft fleet with MV-22 tiltrotor aircraft and remove CH-46 helicopters from service on a one-to-one basis at Marine Corps Air Station (MCAS) Futenma. This is part of the USMC process of replacing CH-46 helicopters worldwide with MV-22 tiltrotor aircraft. This is a unit-level upgrade, not a significant change of US presence in Japan. This upgrade also results in no significant change in the number of service members or their dependents in Okinawa.

2. Aircraft Description:

a. The MV-22 is a highly capable aircraft which combines the vertical capability of a helicopter with the speed and range of a fixed-wing aircraft. When compared to the CH-46, which was introduced in 1964, the MV-22 is roughly twice as fast, can carry nearly three times the payload, and has approximately four times the combat radius. Deployment of the more capable MV-22 aircraft in Okinawa has strategic significance, and it will further contribute to the security of Japan and the maintenance of international peace and security in the region.

b. Due to its high-capability and versatility, the MV-22 can also more effectively perform humanitarian assistance, disaster relief, and rescue operations in Japan and in the region. It is anticipated that the MV-22 will enable the USG to provide humanitarian assistance and disaster relief operations to local communities and the region. Wildland firefighting in the training areas to transport and dump water represents an important function with the MV-22 being able to transport as much as three times the amount of water that a CH-46 can transport. Furthermore, the MV-22 can operate from austere expeditionary sites to provide aid or rescue and can carry 20,000 pounds of cargo at a maximum cruising speed over 260 knots. For example, the MV-22's speed, range, and vertical landing ability enabled transportation of multiple units and relief supplies to remote locations in the disaster relief activities in Haiti in 2010. The MV-22 was also well-suited to safely fly from an amphibious ship in a remote location on the Mediterranean Sea to rescue one aviator from a downed F-15E aircraft in Libya.

c. Based on the MV-22's successful operational performance and record in the fields of disaster relief, humanitarian assistance, and rescue operations, the MV-22 will serve an important role in Japan and throughout the region.

3. **Aircraft Safety Record:** Historical data gathered from the past 10 years of flying proves that the MV-22 has demonstrated a safety record that is consistently better than USMC averages.

a. The Government of the United States (USG) is committed to the safety of MV-22 flight operations. The USG reaffirms that the MV-22 will be operated in accordance with the Naval Air Training and Operating Procedures Standardization (NATOPS) flight manual for the MV-22, enhancing the safety of flight operations, and that the USMC will thoroughly educate and train its aircrew. The USG has well-established procedures for identifying mishap causes and taking appropriate preventative measures to prevent similar mishaps. These procedures include reviewing operations and training to determine whether modifications are required. The USG followed these procedures with the MV-22 mishap in Morocco and the CV-22 mishap in Florida, and the USMC took appropriate preventative measures following these procedures to make appropriate modifications to MV-22 operations and training.

b. The USG has presented to the Government of Japan (GOJ) investigation reports of the MV-22 mishap in Morocco on 11 April 2012 and the CV-22 mishap in Florida on 13 June 2012. The USG assures the GOJ that these investigations were conducted independently and objectively in accordance with relevant regulations and orders. The GOJ proactively reviewed the investigation reports and confirmed the safety of the aircraft. The GOJ was also provided unprecedented access to MV-22 information, and numerous flights and briefings were provided for GOJ officials. In addition, the USG and GOJ conducted extensive consultations in a variety of policy and operational-level venues.

c. The MV-22 has an outstanding safety record as a result of USMC efforts in aggressively documenting and, when appropriate, correcting or revising NATOPS procedures to prevent further mishaps.

4. Training of MV-22 Aircrew and Maintenance Personnel:

a. All MV-22 aircrew arriving in Japan will be proficient and possess required qualifications. To receive their required qualifications, aircrew must meet applicable training standards, including those required to respond in aircraft emergencies. To prevent aircraft mishaps, aircrew training includes applicable lessons learned from aircraft mishaps around the world. Because MV-22 aircraft commanders remain responsible for the safety of their aircraft, including the operations of the aircrew, they and other USMC officers in command will continue aircrew training in Japan to maintain their proficiency, increase their qualifications, and promote military readiness.

b. All MV-22 aircrew arriving in Japan will be made familiar with operational requirements (i.e., "Course Rules") and any unique characteristics (e.g., topography, weather) before flying the MV-22 in Japan. MV-22 aircrew will also conduct thorough briefings to review standard operating procedures, aircrew coordination functions, and planned operating areas for each MV-22 flight.

c. All MV-22 maintenance personnel are thoroughly trained in accordance with applicable occupational specialty standards and will incorporate the latest maintenance information and practices to ensure the MV-22 will operate effectively and safely.

5. Flight Patterns and Operations Over and Surrounding US Facilities and Areas:

a. The USG intends to continue to comply with applicable Memoranda for the Joint Committee regarding Noise Abatement Countermeasures.

b. The USG establishes flight patterns over and surrounding US facilities and areas that minimize the impact of flight operations on the surrounding communities. For this purpose, entry and exit routes for flight operations of the MV-22 should be designed to avoid overflight of densely populated areas, including schools and hospitals as much as possible. While the MV-22 is safe to fly over land and water, the MV-22 will fly over water as much as practicable when transiting.

c. Both flight and ground operations between the hours of 2200 and 0600 are limited to those considered necessary for US operational requirements. Night training flights are limited to the minimum required to fulfill assigned US Forces Japan missions and maintain aircrew proficiency. Unit Commanders will exert every effort to complete night flying operations as early as practical. The USG will minimize the impact of MV-22 night training flights on the communities surrounding Futenma Air Station, including through the use of simulators.

d. The MV-22 will utilize both the established fixed wing and rotary wing traffic patterns and local operating procedures as the basis for arrival and departure of MCAS Futenma to ensure the safe flight operation.

e. The MV-22 normally flies the most time in airplane mode. Except as operationally necessary, MV-22s normally fly in vertical take-off and landing mode only within the boundary of US facilities and areas, and will limit the period of conversion mode as much as possible.

f. After the deployment of the MV-22 in Okinawa, as part of existing programs and with the assistance of the GOJ, the two Governments intend to consider the possibility of conducting its flight training in Japan other than in Okinawa.

6. MV-22 Flight Operations in Training Areas and Other Airspace:

a. As part of flight operations, to include low-level flights, MV-22 aircrew routinely report obstacles or hazards in the training areas and along training navigation routes. Additionally, aircrew will continuously report the changes to

scheduling authorities for dissemination and incorporation into flight planning charts.

b. During flight operations, MV-22 aircrew regularly review and evaluate training navigation routes to ensure maximum safety. Accordingly, the locations of these routes may be modified over time to ensure safety and to minimize the impact on residents of Japan.

c. The USG will conduct its MV-22 flight operations with due regard for the public safety.

d. The USG routinely limits low-level flight training on weekends and Japanese holidays to what it considers essential for US operational readiness requirements.

e. MV-22 aircrew will conduct low-level flight training in Japan because the MV-22 will occasionally operate at low altitudes. While using training navigation routes, the MV-22 will fly at or above 500 feet above ground level, although operational safety may require flying below that altitude. During low-level flight training, it is standard practice for USG aircraft to avoid overflying such places as atomic energy facilities, historic sites, civil airports, congested areas, and other buildings related to public safety (e.g., schools and hospitals).