SAFETY INFORMATION 09/2024

18th April 2024

VOLCANIC ASH HAZARD WARNING: KOTA KINABALU FIR

1 Purpose

1.1 This Safety Information (SI) aims to provide essential information to aviation stakeholders concerning the recent volcanic eruption near Manado, Indonesia, and its potential impact on aviation operations within the Kota Kinabalu Flight Information Region (FIR).

2 Background

2.1 Mount Ruang, a stratovolcano, first erupted at 9:45 pm on Tuesday 16th April 2024, and four times throughout Wednesday 17th April 2024. Mount Ruang, is located at position N0218 E12522 near Manado in North Sulawesi Province Indonesia. As a result, volcanic ash clouds have been observed within the Kota Kinabalu FIR, posing a significant risk to aircraft safety. The eruption prompted the issuance of Significant Meteorological (SIGMET) 1 by the Malaysian Meteorological Department at 6:00 am Malaysia local time, indicating the presence of ash clouds moving westerly at speed of 30 knots from the surface to 55,000 feet and intensifying. This has affected multiple air routes and airports in the region.

3 Discussion

3.1 Volcanic ash clouds can cause severe damage to aircraft engines and aircraft systems, leading to potential engine failure, reduced visibility, and damage to critical components. The volcanic ash can also interfere with aircraft avionics, posing a serious threat to flight safety. Therefore, aviation stakeholders must exercise extreme caution and implement appropriate measures to mitigate the risks associated with volcanic ash encounters.

4 Recommendations

4.1 Air operators are advised to closely monitor meteorological updates, volcanic ash advisories, and Notice to Airmen (NOTAMs) issued by relevant authorities.

4.2 Pilots should exercise vigilance and adhere strictly to established procedures and guidelines for avoiding volcanic ash encounters, including diverting flight paths,

emergency response plans, altering altitudes, and maintaining communication with air traffic control.

4.3 Air traffic controllers are to maintain a constant watch on the development of the ash cloud, update routes and altitude clearances as necessary to maintain aviation safety. This include providing timely and continuous updates to all affected aircraft about changes in the ash cloud's location, density, and expected movements.

4.4 Air traffic controller shall coordinate with adjacent ATC units to manage reroutes effectively, ensuring seamless transitions for aircraft entering or exiting the affected FIRs. In addition to being prepared to implement emergency procedures for aircraft experiencing difficulties due to ash, such as prioritising landings, allow for flexible use of airspace and coordination of potential diversions.

4.5 Airports within the affected area, including Tawau and Lahad Datu, should implement measures to mitigate the impact of volcanic ash on ground operations, such as regular monitoring of runway conditions and implementing appropriate cleaning procedures.

4.6 Passengers are encouraged to stay informed about flight status updates provided by airlines and to exercise patience and flexibility in their travel plans.

4.7 Aviation authorities and regulatory bodies should collaborate closely with meteorological agencies to ensure timely dissemination of critical information and to coordinate response efforts effectively.

5 Conclusion

5.1 The volcanic eruption near Manado poses a significant risk to aviation safety within the Kota Kinabalu FIR. All aviation stakeholders need to remain vigilant, exercise caution, and implement appropriate measures to mitigate the potential impact of volcanic ash on flight operations. CAAM will continue to monitor the situation and will notify its aviation stakeholders accordingly should there be any development.

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