



الخطوط الجوية الكويتية  
KUWAIT AIRWAYS

# FLIGHT SAFETY NOTES

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## NOTAMS – their role and importance in Flight Operations

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## NOTAMS - their role and importance in flight operations

Essential information on aerodrome conditions is necessary for the safety in the operation of aircraft. This pertains to the movement area or any facilities usually associated therewith. This shall be given to every aircraft in sufficient time for the aircraft to make proper use of it, and the hazards shall be identified as distinctly as possible.

NOTAMs are important source of information on aerodrome and related air traffic management facilities.

**NOTAM** or **NoTAM** is the quasi-acronym for a "Notice To AirMen". NOTAMs are created and transmitted by government agencies under guidelines specified by Annex 15: Aeronautical Information Services of the International Convention on Civil Aviation [1]. A NOTAM is issued whenever the information to be distributed is of a temporary nature and of a short duration or operationally significant permanent changes, or temporary changes of long duration and are made at short notice.

It is worthwhile noting here that information of short duration containing extensive text and/or graphics is published as Aeronautical Information Publication (AIP) supplement.

A NOTAM is filed with an aviation authority to alert aircraft pilots of any hazards en route or at a specific location. The authority through its **Flight service stations** in turn reports all relevant NOTAMs to pilots **when a pilot files an intended flight plan**.

NOTAMs are issued (and reported) concerning the following information [1]:

- Establishment, closure or significant changes in **operation of aerodromes or runways**;
- Establishment, withdrawal and significant changes in **operation of aeronautical services – AGA, AIS, ATS, COM, MET etc.**
- Establishment or withdrawal of **electronic or other aids to air navigation and aerodromes/runways**. This includes
  - Interruption or return of operation,
  - Change in frequencies,
  - Change in notified hours of service,
  - Change of identification,
  - Change of orientation of directional aids,
  - Change of location,
  - Power increase or decrease amounting to 50% or more
  - Change in broadcast schedules or contents
  - Irregularity or unreliability of operation of operation of any electronic aid to air navigation
  - Air-ground communication services
- Establishment, withdrawal and significant changes made to **visual aids**;
- Interruption or return to operation of major components of **aerodrome lighting systems**;
- Establishment, withdrawal and significant changes made to **procedures for air navigation services**;

- Occurrence or correction of major defects or impediments in the **maneuvering area**;
- Changes to and limitations on **availability of fuel, oil and oxygen**;
- Changes to **rescue facilities and services available**;
- Establishment, withdrawal or return to operation of **hazard beacons** marking obstacles to air navigation;
- Changes in regulations requiring immediate action, e.g. **prohibited areas for SAR action**;
- Presence of **hazards which affect air navigation** i.e.
  - Obstacles
  - Military exercises
  - Air shows /demonstrations
  - Air races
  - Major parachuting events
- **Erection or removal of obstacles to air navigation** in the takeoff/climb, missed approach, approach areas and runway strip
- Establishment or discontinuance( including activation or deactivation ) changes in the **status of danger areas**
- Establishment or discontinuance of areas or routes or portions thereof where the possibility of interception of exists and where the maintenance guard on the VHF emergency frequency 121.5 MHz is required;
- Allocation, cancellation or change of **location indicators**;
- Significant changes in the level of protection normally available for **Rescue and fire fighting purposes**;
- Presence or removal of, or significant changes in, **hazardous conditions due to snow, slush, ice or water on the movement area**;
- **Outbreaks of epidemics** necessitating changes in notified requirements of inoculations and quarantine measures;
- Forecasts of solar cosmic radiation, where provided;
- An operationally significant change in **volcanic activity**, the location, date and time of **volcanic eruptions** and/or horizontal and vertical extent of volcanic ash cloud, including direction of movement, flight levels and routes or portions of routes which could be affected;
- Release into the atmosphere of **radioactive materials or toxic chemicals** following a nuclear or chemical incident, the location, date and time of incident, the flight levels and routes or portions of routes which could be affected and the direction of movement;
- Establishment of operations of **humanitarian relief missions**, such as those taken under the auspices of United Nations, together with procedures and/or limitations which affect air navigation; and
- Implementation of **short-term contingency measures** in case of disruption, or partial disruption of air traffic services and related supporting services.

From the above, it is clear that NOTAMs are critical for safe operation of a flight and gives crucial inputs to flight planning. While some NOTAMs could inform about the temporary closure of an aerodrome, others will give the pilot a concise picture of the availability or otherwise of the navigational facilities. It could even be information on the current status of Rescue and fire fighting facilities available.

Consider a flight to Jakarta, Indonesia. Currently, Mount Merapi, in Central Java is active and if it were to erupt and dump ash to the atmosphere, the information on the ash cloud and its movement could be vital information for planning the flight.

In adverse weather conditions, when an alternate airport is considered for possible diversion, NOTAM of that airport will give important information on the current status of that airport and its facilities. At times, due to international events like Air shows, substantial air activity could be present in the airspace near an aerodrome. NOTAM of that airport would give the restrictions and other information necessary for operation to and from that airport.

NOTAMs have crucial information on the current status of an aerodrome and the air traffic management facilities available or otherwise. It forms an important input to flight planning and ensuring operational flight safety.

#### **REFERENCES:**

1. Annex 15 to the Convention on International Civil Aviation – Aeronautical Information Services, Twelfth Edition, ICAO, July 2004.
2. “Procedures for Air Navigation Services” , Air Traffic Management, Doc. 4444 ATM/501, Fourteenth edition, ICAO, 2001.