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भारत सरकार  
नागर विमानन विभाग  
महानिदेशक नागर विमानन का कार्यालय  
सफदरजंग एयरपोर्ट के सामने  
नई दिल्ली - ११० ००३

## OPERATIONS CIRCULAR 11 of 2009

Subject: **TRANSPONDER OPERATIONS AT IGI AIRPORT DELHI –  
OPERATION OF SSR – MODE S TRANSPONDERS**

### 1. GENERAL:

An improved surface surveillance system using Mode S multilateration has been installed. This system using Mode S transponder improves the accuracy and the reliability of the ground movement monitoring system.

### 2. SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM – USE OF MODE S TRANSPONDER ON THE GROUND

#### 2.1 AIRCRAFT EQUIPPED WITH MODE S TRANSPONDER:

Aircraft operators shall ensure that Mode S transponders are able to operate when aircraft is on the ground.

#### **Outbound Aircraft:**

a) Upon request for push-back or taxiing from a parking stand whichever comes first:

b) Whenever the aircraft is capable of reporting aircraft identification (i.e. call sign used in flight)

- Enter, using either FMS mode or transponder control unit, the flight identification as specified in item 7 of the ICAO flight plan (example: AIC101, IC864, 9W332) or enter in the absence of flight identification, the aircraft registration. Special attention be paid to the format and call-sign being entered and that it is exactly in conformity to the filed flight

plan. Aircraft using their registration as call-sign may need to confirm with the ATIS, the use of 'dashes or spacing. It has been seen that entry without 'dashes' or 'space' will enable software recognition of call sign.

#### **Outbound Aircraft:**

- Select XPNDR or its equivalent (e.g. 'ON' or 'ALT ON') in relation to specifications on the installed model.
- Select AUTO mode if function is available.
- Do not select the OFF or STDBY functions.
- Set the assigned 'A' code assigned by ATC.

#### **Inbound Aircraft:**

a) After landing and until complete standstill at parking stand:

- Maintain XPNDR or its equivalent in relation of specifications of the installed model.
- Maintain AUTO mode selected if function available.
- Do not select the OFF and STDBY functions.
- Maintain Mode A code assigned by ATC.

b) When AIRCRAFT is at standstill at parking stand, select OFF or STDBY.

#### **Other cases of taxiing Aircraft:**

- Select XPNDR or its equivalent in relation to specifications of the installed model.
- Select AUTO mode if function is available.
- Do not select the OFF and STDBY functions.
- Set the assigned A code to 2000.

To ensure that the performance of systems based on SSR frequencies (including airborne TCAS units and SSR radars) is not compromised, TCAS shall not be activated before receiving the clearance to line-up. After landing, it shall be deactivated after vacating the runway.

## **2.2 AIRCRAFT NOT EQUIPPED WITH MODE S TRANSPONDER OR WITH AN UNSERVICEABLE MODE S TRANSPONDER.**

#### **Outbound Aircraft:**

Maintain Mode A + C transponder in the OFF position until lining up.

#### **Inbound Aircraft:**

Set Mode A + C transponder to OFF as soon as Runway is vacated.

**Other cases of taxiing AIRCRAFT:**

Inform ATC and maintain the Mode A + C transponder in the OFF position all through taxiing.

3. All operators are required to develop or alter their procedures to conform to the above, under intimation to this office.

**Sd/-  
Capt Arvind Kathpalia  
Flight Operations Inspector  
for Director General of Civil Aviation**