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The following Aeronautical Information Circular (AIC) is issued for information, guidance and compliance.



(B.S. BHULLAR)

Director General of Civil Aviation

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## **GUIDELINES ON AVOIDING CONFUSING/SIMILAR CALL-SIGNS BY AIRLINE OPERATORS**

### **1. Introduction**

1.1 The use of similar call-signs by aircraft operating in the same area, at the same time, and on same ATC frequency often give rise to potential and actual confusion leading to misunderstanding to pilots and/or controllers. As a result, one aircraft may act on the clearance meant for another aircraft. This hazard is usually referred to as **Call-Sign Confusion**.

1.2 The potential safety consequences of an aircraft taking and acting on a clearance intended for another aircraft can cause serious incident. This could result in runway incursions, level bust, loss of separation, airprox or a mid-air collision etc.

1.3 Factors which may cause call-sign confusion are as follows:

a) Call-signs coincidentally containing same alphabets or numeric characters but in different order of sequence operating at the same time, in same airspace and on same frequency e.g.:

- i. ABC109 and ABC409
- ii. ABC523 and DEF523
- iii. ABC348 and ABC384

- b) Call-signs containing repeated digits, e.g. ABC555, DEF777.
- c) Use of non-standard RT phraseology.
- d) The quality of communication channel.
- e) Interruption or distraction.
- f) Density of traffic in the airspace.
- g) Frequency workload and flight phase complexity.
- h) Human factors viz. pilot's/controller's accent, pilot's expectation bias, pilot/controller fatigue level, etc.
- i) Visual or phonetic confusion associated with the sequencing of the letter and number groups in a call-sign.

## **2. Call-Sign Conflicts**

2.1 Analysis of the data has identified several conflicts in the call-signs being used by various airlines operating in India. Some of the examples of the call-sign conflicts taking place between aircraft operating at the same airport or in the same airspace are given below:

- a) Flights of same airlines with identical last two alphanumeric numbers operating within 60 minutes period viz. ABC103 & ABC203.
- b) Flights of same airlines with identical first two digits operating within 60 minutes period viz. ABC103 & ABC104.
- c) Flight numbers with identical first and last digit operating within 60 minutes period viz. ABC446 & ABC466
- d) Flights of same airlines with identical flight numbers but in different order operating within 60 minutes period viz. ABC778 & ABC787 & ABC877
- e) Identical flight numbers of different carriers operating within 120 minutes period viz. ABC103 & DEF103
- f) Four digit flight numbers of the same airline having three digits in the same order operating within 120 minutes, viz. ABC1234 & ABC123 or ABC234.
- g) Three of the flight number digits identical of one airline are in the same order as that of a four-digit flight number of other airline operating within 60 minutes, viz. ABC1234 & DEF123 or DEF234.

## **3. Requirements for Call-sign Conflict Resolution**

In order to resolve the call-sign conflicts, all the airlines shall follow the requirements as given in the following Table for determining the call-signs for their respective flights. The Airport Operators and Air Navigation Service Provider (ANSP)

shall also follow these requirements while performing their respective functions in this regard.

Instructions	Description of the requirement	Example
Visual Aural Similarity	Not to consider same or similar flight numbers when airlines letter designators are visually similar or telephony designators are aurally confusing with respect to other airlines.	<p><u>Example 1</u> JLL103 &amp; JAL107 though different airline carriers (i.e. JetLite &amp; Japan Airlines) but are having visually similar call-signs.</p> <p><u>Example 2</u> JLL103 &amp; SEJ107 though different airline carriers (i.e. JetLite &amp; Spicejet) but have similar sounding ICAO RT call-signs (i.e. Litejet 103 and Spicejet 107)</p>
Call-Sign Format	Aircraft Registration when used as call-sign, shall be as per ICAO standard practices.	EIAKO, 4XBCD, N2567GA
	Use of same digits to form a call-sign is not allowed	ABC555 or DEF888
	Alphanumeric call-signs which correspond to the last two letters of the planned aerodrome are not allowed	Flight inbound to EGLL & VOMM should avoid using call-sign like ABC96LL & ABC96MM respectively.
	Suffixing letter 'S','I','O' after numeral should not be used as it creates visual confusion to the Controllers on Radar screen/ and the Flight Progress Strip	'S' can be confused with '5', 'I' can be confused with '1', 'O' can be confused with '0')
	Flight numbers ending with <u>ZERO (050 to 410)</u> or <u>FIVE (005 to 355)</u> should not be used as it can easily be confused with assigned level or heading	ABC410 not permitted & ABC420 permitted  ABC355 not permitted & ABC365 permitted
	Additional flight: should suffix 'A' to indicate additional flight	ABC236A
	Delayed/Late/Diverted flight: to suffix 'D' to indicate delayed/late/diverted flight.	ABC236D
	Re-routed flight: to suffix 'R' to indicate rerouted flight	ABC236 (DEL-AMD-BOM) ABC236R (DEL-BOM)
	To avoid delay, same rotation flight in exceptional cases can operate a portion of the scheduled sector by suffixing 'T' to the original flight number.	ABC236 (SXR-DEL/DEL-DED)  In case of delay in departure from SXR, flight to operate on DEL-DED route with call-sign ABC236T. This should be avoided, as far as

		possible. Operator to exercise this privilege only with prior co-ordination with Departure/Arrival and enroute ATC's.  The above provision to be used only as an exception and should not be a practice
	Four digit call-signs should only be used when no three digit call-signs are available. A four digit call-sign, if used, shall have first three numerals suffixed with an alphabet. The use of alphabet 'A', 'D', 'R', 'T', 'I', 'O', 'S', 'X' is not permitted.	ABC123W is permitted ABC123X is not permitted
Call-sign Similarity	Flights of same airline with identical last two digits not permitted within 60 minutes.	ABC103 & ABC203
	Flights of same airline with identical first two digits not permitted within 60 minutes.	ABC103 & ABC104
	Flights of same airline with identical first and last digit not permitted within 60 minutes.	ABC446 & ABC466
Call-sign Similarity	Flights of same airline with identical flight numbers but in different order not permitted within 60 minutes.	ABC778, ABC787 & ABC877
	Identical flight number with different carriers not permitted within 120 minutes.	ABC103 & DEF103
Call-sign Similarity	Four digit flight numbers of the same airlines having three of the digits in the same order are not permitted within 120 minutes.	ABC1234 & ABC123 or ABC234
Call-sign Similarity	Three of the flight number digits identical to a three digit combination of a four digit flight number of a different airline, not permitted within 60 minutes.	ABC1234 & DEF123 or DEF234

Same Call-sign	Two flights of the same operator cannot operate with same call-sign within 12 hours from the same airport.	ABC123 DEL-MAA; EOBT 08:00/01 MAR 2017  ABC123 DEL-BOM; EOBT 19:55/01 MAR 2017 are not permitted
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4. Additional action by ANSP and airlines, in the interest of safety of aircraft operations, shall be as follows:

4.1 Airlines to strictly adhere to the call-signs as per the approved DGCA schedule. If the approved Flight No. is ABC0431, the filing flight plan as ABC431 by the airlines is not permitted. Similarly, if the approved Flight No. is ABC021, the filing flight plan using call-sign ABC21 is not permitted.

4.2 All flights operating in congested airspace are encouraged to use two digit call-signs.

4.3 Call-signs for flights operating to/from Srinagar, Jammu, Kathmandu, Bagdogra and overflying Dhaka need to be chosen very carefully by the airlines due to interaction with multiple ATS units and to minimize RT congestion.

4.4 Pilots and controllers should be sensitized to report call-sign confusion to their respective organizations.

4.5 Pilots and controllers should be sensitized to maintain RT discipline and use of correct phraseology (e.g. 118.1 is normally pronounced wrongly by some of the Pilots as EIGHTEEN ONE).

5. Any issue on call-sign, which remains unresolved between airlines/ANSP shall be brought up to the notice of DGCA.

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