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# IMPLEMENTATION OF ICAO STANDARD INSTRUMENT DEPARTURE (SID) AND STANDARD INSTRUMENT ARRIVAL (STAR) PHRASEOLOGIES

## 1- Introduction

**1.1** The International Civil Aviation Organization (ICAO) has developed new standard instrument departure (SID) / standard instrument arrival (STAR) phraseology, which had been the subject of the amendment 7-A to PANS-ATM.

**1.2** The intent of the new phraseology is to clarify expectations for air traffic control (ATC) and pilots. Use of the word VIA means that pilots must follow all charted altitude constraints and speed restrictions along the SID/STAR profile. With a VIA SID/STAR clearance, ATC will specify the altitude that a pilot is cleared to climb or descend to. When ATC assigns an altitude, the pilot climbs or descends to the ATC-assigned altitude. The use of a SID/STAR designator without a cleared altitude does not authorize a pilot to climb or descend on the SID/STAR vertical profile. For STARs, if the aircraft is level and cleared to descend VIA STAR, the pilot may start descent at the optimal top of descent.

**1.3** The Oman ATC-pilot phraseologies and procedures are in alignment with the amendment 7-A to PANS-ATM and all Flight Crews and Air Traffic Controllers are expected to be familiar with and to follow these provisions.

## 2- Background:

**2.1** SIDs and STARs provide a safe and efficient way of prescribing a large amount of information through procedure design. Each depict the lateral profile of an instrument departure or arrival route and associated level and speed restrictions.

**2.2** The use of SID/STAR phraseology brings significant benefits. It enables efficent and concise communication. It allows ATC to issue, and aircrew to understand detailed clearance information that would otherwise require long and complex transmissions.

**2.3** Over time, these benefits have been eroded through the development of non- harmonised practices and different meanings being attached to certain elements of SID/STAR phraseology. Consequently, there may be a mismatch between ATC and pilot expectations when SID/STAR phraseology is used, and what certain terms may mean. This presents a safety risk that requires a renewed effort to adopt harmonised SID/STAR phraseology.

**2.4** To develop a common understanding, harmonized phraseology was introduced in the 16th edition of PANS-ATM (ICAO Doc 4444). These global procedures allow for the effective and efficient utilisation of the defined profiles of SID and STAR procedures and provides pilots with explicit direction regarding expected speed and altitude at all times.

## 3- The reason for the Changes

**3.1** The purposes of this change are to:

- Provide core phraseology that positively reinforces that the lateral, vertical and speed requirements embedded in a SID or STAR will continue to apply, unless explicitly cancelled or amended by the controller;
- Provide supplementary phraseology that enables any level and/or speed restrictions as local circumstances, practice or procedures permit;
- Harmonise through appropriate phraseology the means by which aircraft must be cleared where variations to the lateral profile are required, such as where waypoints along the procedure are bypassed.

## 4- Overview of SID/STAR Changes

**4.1** The new SID/STAR procedures are centered on core phraseologies that positively reinforce the lateral, vertical and speed requirements embedded in a SID or STAR that will continue to apply, unless explicitly cancelled or amended by the controller.

**4.2** The core phraseologies are:

— CLIMB VIA SID TO (level)

— DESCEND VIA STAR TO (level)

**4.3** There will also be supplementary phraseology for ATC to cancel or reimpose level and/or speed restrictions as necessary for traffic management.

## 5- Phraseology

**5.1** The following are the fundamental changes to current ATC clearances and ensuing pilot actions:

| Phraseology | ATC Clearance | Pilot Action |
|---|---|---|
| Core Phraseology | CLIMB VIA SID [TO] (level)<br>or<br>DESCEND VIA STAR [TO] (level) | ▪ Follow the lateral profile of the procedure;<br>▪ Climb/descend to the cleared level in accordance with published level restrictions; and<br>▪ Comply with published speed restrictions or ATC-issued speed control instructions as applicable. |
| Phraseology for removal of level restrictions | CLIMB VIA SID [TO] (level), CANCEL LEVEL RESTRICTION(S)<br>or<br>b) DESCEND VIA STAR TO (level), CANCEL LEVEL RESTRICTION(S) | ▪ climb/descend to the cleared level; published level restrictions are cancelled;<br>▪ follow the lateral profile of the procedure; and<br>▪ comply with published speed restrictions or ATC-issued speed control instructions as applicable. |
| Phraseology for removal of level restrictions at points(s) | CLIMB VIA SID [TO] (level), CANCEL LEVEL RESTRICTION(S) AT (POINTS(S))<br>Or<br>c) DESCEND VIA STAR TO (level), CANCEL LEVEL RESTRICTION(S) AT (point(s)): | ▪ climb/descend to the cleared level; published level restrictions at the specified point(s) are cancelled;<br>▪ follow the lateral profile of the procedure; and<br>▪ comply with published speed restrictions or ATC-issued speed control instructions as applicable. |
| Phraseology for removal of speed restrictions | CLIMB VIA SID [TO] (level), CANCEL SPEED RESTRICTION(S)<br>or<br>DESCEND VIA STAR TO (level), CANCEL SPEED RESTRICTION(S): | ▪ follow the lateral profile of the procedure;<br>▪ climb/descend to the cleared level and comply with published level restrictions; and |

| | | |
|---|---|---|
| | | ▪ published speed restrictions and ATC-issued speed control instructions are cancelled. |
| Phraseology for removal of speed restrictions at points(s) | CLIMB VIA SID TO *(level)*, CANCEL SPEED RESTRICTION(S) AT *(point(s))*,<br>or<br>DESCEND VIA STAR TO (level), CANCEL SPEED RESTRICTION(S) AT (point(s)) | ▪ climb/descend to the cleared level and comply with published level restrictions;<br>▪ follow the lateral profile of the procedure; and<br>▪ published speed restrictions are cancelled at the specified point(s). |
| Phraseology for removal of speed and level restrictions | CLIMB UNRESTRICTED TO *(level)* or CLIMB TO *(level)*, CANCEL LEVEL AND SPEED RESTRICTION(S):<br>or<br>DESCEND UNRESTRICTED TO (level) or DESCEND TO (level), CANCEL LEVEL AND SPEED RESTRICTION(S). | ▪ climb/descend to the cleared level; published level restrictions are cancelled;<br>▪ follow the lateral profile of the procedure; and<br>▪ published speed restrictions and ATC-issued speed control instructions are cancelled. |
| Phraseology for variations to lateral profile of the SID/STAR | PROCEED DIRECT (waypoint)<br>or<br>VECTORING | Speed and level restrictions associated with the bypassed waypoints are cancelled. |
| Phraseology to return to SID/STAR | PROCEED DIRECT (waypoint) ON COURSE<br>or<br>REJOIN SID/STAR | Altitude constraints and speed restrictions associated with the waypoint where the rejoin occurs, as well as those associated with all subsequent waypoints, must be complied with. |

## 6- Details of Changes and Scenarios

**6.1** To assist airspace users to familiarise with the changes to the phraseologies, more detailed information on the procedures and example scenarios is available on ICAO website at: www.icao.int/airnavigation/sidstar/Pages/CHANGES-TO-SID_STAR-PHRA-SEOLOGIES.aspx.

## 7- Conclusion :

Discrepancies in the application of existing SID/STAR procedures were identified as posing a threat to flight safety. Implementation of the new SID/STAR phraseology is deemed by the international community to be of the utmost importance for global harmonization and compliance with SID/STAR procedures. Oman's implementation of the new SID/STAR phraseology ensures compliance with these important safety changes.

## 8- Entry into Force

**8.1** The provisions of the present AIC come into force from 11 October 2018.

***END***

*-This AIC includes 3 pages-*