U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

Air Traffic Organization Policy

ORDER
JO 7110.113D

Effective Date:
April 3, 2014

SUBJ: Procedures for Issuing Automated Clearances

1. Purpose of This Order. This order prescribes procedures for issuing departure clearances using the pre-departure clearance (PDC) function of the Tower Data Link System (TDLS) automated data link between airport traffic control towers (ATCT) and authorized users.

2. Audience. This order applies to the following Air Traffic Organization (ATO) service units: Air Traffic Services, Technical Operations, Mission Support, System Operations; and all associated air traffic control facilities.

3. Where Can I Find This Order? This order is available on the MyFAA employee website at https://employees.faa.gov/tools_resources/orders_notices/ and on the FAA website at http://www.faa.gov/regulations_policies/orders_notices/.

4. Cancellation. FAA Order 7110.113C, Procedures for Issuing Automated Clearances, dated August 6, 2001, is cancelled.

5. Explanation of Policy Changes. This order is revised to provide standardization of PDC's across the FAA. The background paragraph contains detailed information. This order also includes revised procedures critical to departure clearances from FAA Order JO 7110.65, Air Traffic Control, regarding "climb via" in a Standard Instrument Departure.

6. Procedures.

a. General.

(1) All clearances must be reviewed for accuracy and route integrity. Action must be taken to ensure all information is complete and understandable to the recipient, and the route of flight is continuous.

(2) The PDC does not permit amended or revised flight plans to be transmitted. Revised or amended flight plans require the clearance to be verbally issued to the flight crew.

NOTE-
A flight plan that initially generates in the Tower, with a route assigned by automation, is not considered revised or amended and may be transmitted.

(3) Improvised or controller generated text must not contain ATC instructions. Additional information such as traffic management messages may be included. All improvised text must be clear, concise, and serve an ATC purpose.

(4) The Air Traffic Manager (ATM) must determine the mode of PDC operation. Prior to use of the "AUTO" mode, facilities must establish positive procedures to immediately detect and promptly correct any data transmitted in error.

(5) For a minimum of 60 days following the commissioning of a PDC/TDLS, the facility Automatic Terminal Information Service (ATIS) must broadcast that PDC is available.

(6) A notice to airmen (NOTAM) outlining the services being provided by PDC must be issued for a minimum of 2 years following commissioning of the system. The NOTAM must direct applicants who request to participate to contact:

Federal Aviation Administration
Mission Support, Air Traffic Procedures, AJV-8
800 Independence Ave., SW.
Washington, DC 20591

(7) Technical Operations personnel must be notified when an outage or problem occurs with any element of the TDLS.

b. Local Directive. The ATM must establish a facility directive for transmitting automated clearances. The directive must contain local procedures and responsibilities for processing clearances and must include the following:

(1) Procedures to review clearances for accuracy and route integrity. Include positive procedures for correcting information prior to transmitting and/or to verbally correct information that has changed or been transmitted in error.

(2) Procedures for issuing Departure Procedures (DPs), Standard Instrument Departures (SIDs), altitude information, departure frequencies, and other air traffic control information in accordance with this directive.

(3) Responsible positions and procedures to ensure that all applicable clearance information, in accordance with FAA Order JO 7110.65, Air Traffic Control, is conveyed to the pilot either via Option Fields or verbal communication.

(4) Procedures for local use of Option Fields in accordance with this directive. Include types of additional information and improvised text that may be used.

(5) Procedures for operating in "AUTO" mode, when applicable. To facilitate continued use of AUTO mode, facilities may populate Option Fields 1 and 2 as follows:

(a) Use Option Field 1 for DEP Instructions for RNAV ACFT.

(b) Use Option Field for 2 Instructions for NON-RNAV ACFT.

EXAMPLE (RNAV Aircraft):
(Option Field 1) RNAV ACFT CLEARED VIA ASSIGNED DEP.

EXAMPLE (Non- RNAV Aircraft):
(Option Field 2) NON-RNAV ACFT CLEARED ATL6 DEP.

(6) Procedures for monitoring and reporting routes which are routinely generated by automation that differ from the filed route (indicated with plus signs on flight progress strip) to the facility TDLS Application Specialist (TAS), who will report to the appropriate Air Route Traffic Control Center (ARTCC) PDC focal as necessary.

c. PDC Option Fields. The route of flight, as displayed on the flight progress strip, is transmitted to the pilot in a PDC clearance. PDC provides up to six Option Fields for the tower controller to enter all other clearance information. Each Option Field may contain up to 20 different line selections, with a maximum of 39 characters per line, based upon local facility adaptation. For standardization, facilities must use PDC Option Fields as follows:

(1) Option Field 1 is reserved for an aircraft cleared via a Departure Procedure (DP) or Standard Instrument Departure (SID) procedure. Option Field 1 must contain the DP/SID and transition

if applicable unless the DP/SID and transition is adapted in HOST/ERAM and the ATCT has verified it is included in the route of flight.

(a) The name of the DP/SID must be preceded by the words “CLEARED”.

(b) The name of the DP/SID must be followed by the abbreviation “DEP” for DEPARTURE.

(c) The name of the transition must be followed by the abbreviation “TRSN” for TRANSITION.

EXAMPLE (DP/SID Transition):
CLEARED EWR1 DEP ACK TRSN (NOT NEWARK ONE) (NOT NANTUCKET).

CLEARED BETTE3 DEP VALLY TRSN.

(d) The name of the DP/SID/TRSN must use the associated codified identifier.

(e) Once a clearance is transmitted, if the DP/SID or transition assigned or entered in Option Field 1 is changed, or is not the DP/SID or transition to be flown, the revised or intended DP/SID or transition must be issued verbally.

(f) If an aircraft is not cleared via a DP/SID, Option Field 1 should be left blank.

(2) Option Field 2 is reserved for associated climb-out or initial heading instructions. If the initial heading to be flown is different from the published heading in the assigned DP/SID, the heading must be issued verbally.

EXAMPLE (Associated climb-out instructions, or initial heading):
CANARSIE CLIMB

INITIAL HEADING 155

(3) Option Field 3 must contain altitude guidance.

(a) If NO SID is assigned or the assigned DP/SID does not contain an initial altitude or vertical guidance then Option Field 3 must contain the instruction “MAINTAIN (assigned altitude)”.

EXAMPLE 1 (Initial Altitude):
(Option Field 1): Blank (NO SID).
(Option Field 2):
(Option Field 3): MAINTAIN 5,000.
(Option Field 4): EXPECT FL 230 AT EWC.

EXAMPLE 2 (Initial Altitude):
(Option Field 1): CLEARED KING7 DEP GTH TRSN (DP/SID contains no Altitude information for Jets).
(Option Field 2):
(Option Field 3): MAINTAIN 5,000.
(Option Field 4): EXPECT FILED ALT 10 MINUTES AFTER DEPARTURE (if not contained in DP/ SID).

(b) If the assigned DP/SID contains vertical guidance from take-off to climb-to an altitude to maintain, or contains a top altitude, and it is intended that an aircraft vertically navigate in accordance with the DP/SID assigned or entered in Option Field 1, then Option Field 3 must contain the instruction “CLIMB VIA SID”.

EXAMPLE (Climb Via):
(Option Field 1): CLEARED CPTAL8 DEP (DP/SID contains Top Altitude or Initial Altitude).
(Option Field 2):
(Option Field 3): CLIMB VIA SID.
(Option Field 4): EXPECT FILED ALT 10 MINUTES AFTER DEP (Required if not contained in DP/SID).

(c) If the assigned DP/SID does not have an initial altitude to maintain or a top altitude, but contains vertical guidance, and it is intended that an aircraft vertically navigate in accordance with the DP/SID assigned or entered in Option Field 1, then Option Field 3 must contain the instruction "CLIMB VIA SID EXCEPT MAINTAIN (ALT)".

EXAMPLE (Climb Via Except Maintain):
(Option Field 1): CLEARED HAROB4 DEP ERAVE TRSN (DP/SID does not contain Top Altitude or Initial Altitude but contains Crossing Restrictions).
(Option Field 2):
(Option Field 3): CLIMB VIA SID, EXCEPT MAINTAIN (ALTITUDE).
(Option Field 4): EXPECT FILED ALT 15 NM FROM SEA VORTAC (Required if not contained in DP/SID).

(d) If the assigned altitude is different from the published altitude in the DP/SID, the altitude may be amended via PDC using, *CLIMB VIA SID, EXCEPT MAINTAIN (ALTITUDE)*.

(4) Option Field 4 must contain the expected altitude with directions unless included in the assigned DP/SID.

EXAMPLE (Expect Altitude):
EXPECT FILED ALT 10 MIN AFTER DEP.
EXPECT FILED ALT 15 NM FROM SEA VORTAC.

(5) Option Field 5 must contain the departure control frequency unless the departure frequency is contained in the DP/SID.

(6) Additional use of Option Fields 4 and 5 (if not required) and Option Field 6 may also be defined in a facility directive. Unless specifically prohibited by this order, remaining and unassigned Option Fields must be used in accordance with a facility directive. Only include information that is not contrary to that in an assigned DP/SID and if it is necessary for a facility or specific operation. Use Option Fields in a sequence consistent with Departure Clearance in FAA Order JO 7110.65.

(7) Table 1 lists all six Option Fields and the allowable data entered into each.

TBL 1
Allowable Data

FIELD	ALLOWABLE DATA
1	*"CLEARED (DP/SID to be flown) DEP "(TRANSITION to be flown) TRSN"* or *DEP Instruction to RNAV ACFT (auto-mode)* or *no entry* (if no SID is assigned or the SID is contained in the route of flight)
2	*Associated climb-out instructions or initial heading* or *DEP Instruction to NON RNAV ACFT (auto-mode)* or *no entry*
3	*"MAINTAIN (Initial Altitude)"* or *"CLIMB VIA SID"* or *"CLIMB VIA SID, EXCEPT MAINTAIN (Altitude)"*
4	Expected Altitude in the event of lost communications *(if not contained in SID)* or In accordance with facility directive
5	*"DEP CONTROL (FREQUENCY)" (if not contained in SID)* or In accordance with facility directive
6	In accordance with facility directive

(8) Once transmitted, if any clearance information changes or if it is contrary to that in an assigned SID, that information must be issued verbally.

(9) DO NOT imply or use terms such as "Cleared as filed" or "As filed" in an automated clearance.

(10) Only standard contractions found in FAA Order 7340.2 must be used in populating Option Fields.

d. TDLS APPLICATION SPECIALIST (TAS). The ATM must designate a facility TAS. The TAS must:

(1) Configure air traffic components of TDLS, incorporate air traffic operational data, monitor data and configurations to ensure accuracy and currency, make adjustments to TDLS as required, and maintain the TDLS for optimum usability.

(2) Share responsibility and coordinate with the Technical Operations TDLS System Administrator(s) as necessary.

(3) Receive reports and monitor PDC's for routes which are routinely generated by automation that differ from the filed route (indicated with plus signs on flight progress strip). Investigate likely causes of multiple, repeated occurrences. Report the findings to appropriate ARTCC PDC focal.

e. Coordination. All matters pertaining to the PDC/TDLS of system-wide interest, including notification of new participants, must be coordinated through the headquarters air traffic PDC/TDLS coordinator in Air Traffic Procedures, Mission Support, AJV-8.

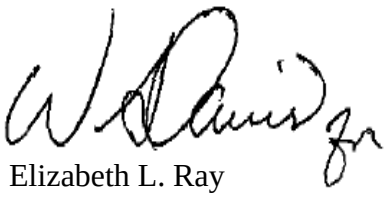
7. Distribution. This order is distributed to the following ATO service units: Air Traffic Services, Technical Operations, System Operations, and Mission Support; the ATO Office of Safety and Technical Training; the Air Traffic Safety Oversight Service; the William J. Hughes Technical Center; and the Mike Monroney Aeronautical Center.

8. Background. The automated PDC/TDLS is a data link between the ATCT Flight Data Input/Output System (FDIO) and specially equipped aircraft, or the User Flight Planning Computer System. The data is presented to the clearance delivery (CD) position on a terminal display in the form of a tabular list and flight plan display area. A CD specialist may append the flight plan by including approved information before relaying the clearance. The resulting departure clearance is then transmitted to the participant network computer via a data communication transfer. The PDC process virtually eliminates the need for verbal communications with participating aircraft and reduces the amount of frequency congestion, especially during peak traffic periods.

The FAA and user community identified several unique characteristics of issuing automated clearances that potentially lead to lack of consistency in clearance composition across the FAA, varied understanding or misunderstanding of clearance content by the recipient, contradictory information within a clearance, and inadequate local monitoring of air traffic TDLS adaptations.

A workgroup was formed in mid-2011 to identify the issues of the TDLS system, including PDC's, and to formulate viable solutions wherever practical. This directive is revised as a result. The intent is to reduce potential misunderstanding by creating consistency of clearance elements for all TDLS facilities, reducing proliferation of reroutes assigned by automation where possible, and establishing a process for identifying system issues.

Air Traffic Procedures, Headquarters has requested a change to FAA Order JO 7110.113C that incorporates assignment of departure procedures, altitude guidance (including "Climb Via"), and standard sequencing of information in the PDC. The route of flight as displayed on the Flight Progress Strip is transmitted to the pilot in a PDC. PDC provides up to six Option Fields for the Tower controller to enter all other clearance information. This order requires amendments to the PDC option fields. The change addresses overall format to more closely align PDC with FAA Order JO 7110.65, paragraph 4-2-1, Clearance Items and paragraph 4-3-2, Departure Clearances.



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3/05/14
Date Signed