

Section 3. En Route Procedures

5-3-1. ARTCC Communications

a. Direct Communications, Controllers and Pilots.

1. ARTCCs are capable of direct communications with IFR air traffic on certain frequencies. Maximum communications coverage is possible through the use of Remote Center Air/Ground (RCAG) sites comprised of both VHF and UHF transmitters and receivers. These sites are located throughout the U.S. Although they may be several hundred miles away from the ARTCC, they are remoted to the various ARTCCs by land lines or microwave links. Since IFR operations are expedited through the use of direct communications, pilots are requested to use these frequencies strictly for communications pertinent to the control of IFR aircraft. Flight plan filing, en route weather, weather forecasts, and similar data should be requested through FSSs, company radio, or appropriate military facilities capable of performing these services.

2. An ARTCC is divided into sectors. Each sector is handled by one or a team of controllers and has its own sector discrete frequency. As a flight progresses from one sector to another, the pilot is requested to change to the appropriate sector discrete frequency.

3. Controller Pilot Data Link Communications (CPDLC) is a system that supplements air/ground voice communications. The CPDLC's principal operating criteria are:

(a) Voice remains the primary and controlling air/ground communications means.

(b) Participating aircraft will need to have the appropriate CPDLC avionics equipment in order to receive uplink or transmit downlink messages.

(c) En Route CPDLC Initial Services offer the following services: Altimeter Setting (AS), Transfer of Communications (TOC), Initial Contact (IC), and limited route assignments, including airborne reroutes (ABRR), limited altitude assignments, and emergency messages.

(1) Altimeter settings will be uplinked automatically when appropriate after a Monitor TOC.

Altimeter settings will also be uplinked automatically when an aircraft receives an uplinked altitude assignment below FL 180. A controller may also manually send an altimeter setting message.

NOTE-

When conducting instrument approach procedures, pilots are responsible to obtain and use the appropriate altimeter setting in accordance with 14 CFR Section 97.20. CPDLC issued altimeter settings are excluded for this purpose.

(2) Initial contact is a safety validation transaction that compares a pilot's initiated altitude downlink message with an aircraft's stored altitude in the ATC automation system. When an IC mismatch or Confirm Assigned Altitude (CAA) downlink time-out indicator is displayed in the Full Data Block (FDB) and Aircraft List (ACL), the controller who has track control of the aircraft must use voice communication to verify the assigned altitude of the aircraft, and acknowledge the IC mismatch/time-out indicator.

(3) Transfer of communications automatically establishes data link contact with a succeeding sector.

(4) Menu text transmissions are scripted nontrajectory altering uplink messages.

(5) The CPDLC Message Elements for the Initial Capabilities rollout are contained in TBL 5-3-1 through TBL 5-3-19, CPDLC Message Elements, below.

NOTE-

The FAA is not implementing ATN B1; the ATN B1 column in the tables is there for informational purposes only.

b. ATC Frequency Change Procedures.

1. The following phraseology will be used by controllers to effect a frequency change:

EXAMPLE-

(Aircraft identification) contact (facility name or location name and terminal function) (frequency) at (time, fix, or altitude).

NOTE-

Pilots are expected to maintain a listening watch on the transferring controller's frequency until the time, fix, or altitude specified. ATC will omit frequency change restrictions whenever pilot compliance is expected upon receipt.