CPDLC Briefing

MEETING 17-02

Gregg Anderson, FAA/AJM-34, provided an update on the Controller Pilot Data Link Communication (CPDLC) program. Gregg stated that Phase 1, in which terminal CPDLC services were deployed to 55 towers, is now complete. In preparation for Phase 2, the individual airport-specific logons (for example, "KAUS") will be changed to the universal nationwide logon of "KUSA". This will happen within the next few weeks. Valerie Watson, FAA/AJV-553, stated that the current individual logons contained in the NASR database will be revised to KUSA and these revisions will appear published in the National Flight Data Digest (NFDD) and eNASR. She further stated that, for at least the short term, the logon KUSA will be retained in the Chart Supplement airport CPDLC entries. Once AIM guidance is published announcing the universal KUSA logon, AJV-5 will look into the possibility of removing the logon from the airport entries and adding explanatory text to the front of the Chart Supplement. Ted Thompson, Jeppesen, suggested that the KUSA logon information be retained in the database even though it may seem redundant. He stressed that this is especially important for data suppliers so they don't have to hunt for the logon information. Joshua Fenwick, Garmin, echoed that he would like the logon information to be retained, at least in the database. Valerie thanked Ted and Joshua for their input and stated she would recommend AJV-5 to retain the information in NASR.

Gregg then discussed Phase 2 of the program which is the implementation of enroute services. He stated that the initial testing is set to take place beginning in April of 2018. He briefed that a phased implementation of enroute CPDLC services is planned (<u>see ppt</u>). Gregg then discussed his charting recommendations for making the public aware that enroute CPDLC services are available within a given Air Route Traffic Control Center (ARTCC). He showed examples of how other countries have charted CPDLC information on their enroute charts (<u>Slides #8 and #9</u>). Valerie asked if there is an existing ICAO standard in place for charting CPDLC information. Gregg replied that there is no ICAO guidance.

Ted discussed the enroute charting implications, stating that there is a need for a coordinated effort between the FAA and chart producers. He proposed the formation of a workgroup to discuss the source and depiction of CPDLC information on enroute charts. He shared that Jeppesen already has a charting specification in place where the CPDCL information, including the logon information, is part of the center boundary label.

Valerie will put together a workgroup with Gregg Anderson's assistance to address the expansion of CPDLC into the enroute arena and to discuss the databasing and charting portion of this recommendation.

CPDLC Workgroup					
Valerie Watson	FAA/AJV-553	301-427-5155	valerie.s.watson@faa.gov		
Jennifer Hendi	FAA/AJV-553	301-427-4816	Jennifer.I.hendi@faa.gov		
Joshua Fenwick	Garmin	913-228-9779	Joshua.Fenwick@garmin.com		
Richard Mayhew	FAA/AJV-5331	202-267-6441	richard.p.mayhew@faa.gov		
Steve Woodbury	FlightSafety	316-612-5300	steve.woodbury@flightsafety.com		

John Schmitz	Delta Air Lines	404-715-7124	john.schmitz@delta.com
Kemal Ahmed	NavTech	44-0-1932-704263	kemal.ahmed@navtech.aero
Kyle Jermyn	Jeppesen	303-328-6298	kyle.jermyn@jeppesen.com
Ted Thompson	Jeppesen	303-328-4456	ted.thompson@jeppesen.com
Diego Velasco	FAA	301-427-4877	diego.velasco@faa.gov
Gregg Anderson	FAA	202-267-7469 / 236-1290	Gregg.Anderson@faa.gov
Zann Hawkins	Lido	901-240-5602	william.hawkins@lhsystems.com
Juergen Kuhnhenn	Lido	41-44-828 6546	juergen.kuhnhenn@LHSystems.com
Robert D. Carlson, Jr.	FAA	301-427-5134	robert.d.carlson@faa.gov
Robert Gifford	FAA	301-427-4842	Robert.l.gifford@faa.gov

- <u>ACTION:</u> Gregg Anderson, FAA/AJM-34, will work on AIM guidance regarding the universal KUSA logon.
- **ACTION:** Valerie Watson, FAA/AJV-553, will monitor AIM guidance publication and take action to add explanatory text to the front of the Chart Supplement to describe the new KUSA logon.
- **ACTION:** Valerie Watson, FAA/AJV-553, and Gregg Anderson, FAA/AJM-34, will set up a working group to discuss the Enroute application of CPDLC.
- ACTION: Scott Jerdan, FAA/AJV-533, will work to establish NASR population of ARTCC CPDLC information.

MEETING 18-01

Valerie Watson, FAA/AJV-553, provided an update on behalf of Gregg Anderson, FAA/AJM-34. Valerie stated that for the terminal implementation of Controller Pilot Data Link Communications (CPDLC), the Aeronautical Information Manual (AIM) guidance now includes the universal nationwide logon of "KUSA". She said that even though KUSA is now used at all airports in the U.S., the logon information will be retained by FAA/AJV-5 in the National Airspace System Resource (NASR) database and in the Chart Supplement airport entries.

Valerie then discussed Phase 2 of the CPDLC program, which is implementation of enroute services. She stated that enroute CPDLC is currently in testing phase and that Kansas City Center remains on track for fully operational implementation in October 2018. Valerie then showed an enroute chart sample of the proposed depiction of "CPDLC (LOGON KUSA)" along the Air Route Traffic Control Center (ARTCC) boundary in association with the existing Center boundary identification text. She said that the plan is for "CPDLC (LOGON KUSA)" to be published in the NASR database as a General Remark in the Center resource for each Center as they are commissioned.

Michael Stromberg, UPS, asked if there will be AIM guidance for enroute CPDLC usage. Valerie stated that Gregg Anderson is working on draft AIM language and hopes to have it published in the fall.

Ted Thompson, Jeppesen, expressed concern that pilots are going to need more training and education, particularly during the rollout period where CPDLC doesn't exist at every U.S. Center. He suggested a warning note on data driven charts that would alert pilots when they are 10 minutes outside of the boundary, but he said he understands that decision and relevant guidance would have to come from the Centers. Valerie stated that it is intended that the AIM will explain Enroute CPDLC usage sufficiently. She stated that charts are intended to depict what attributes: i.e., NAVAIDs, airways, airports, procedures, exist in the National Airspace System and not to provide guidance in how to use those charted items. She suggested that a Charting Notice could be published when CPDLC is commissioned at the first Center of the proposed rollout and committed to obtaining text for that Notice from Gregg.

Valerie then asked the audience if a warning note alerting pilots 10 minutes prior to entering a CPDLC equipped Center would be useful on charts or could it be incorporated into the data for the Center so that data-driven enroute applications could make use of it. She stated that the NASR database has the capacity to add a General Remark to the Center resource if it were an Air Traffic requirement and received from the Center.

Lev Prichard, American Airlines, echoed Ted's comments on the need to alert pilots to the availability of CPDLC services and he agreed that the solution needs to be data driven. Gary McMullin, Southwest, pointed out that once the rollout is complete in the U.S., it will be seamless for pilots and notification between Centers will be unnecessary. The notification would then only be relevant for aircraft entering or exiting U.S. airspace. Valerie pointed out that during the rollout it will not be seamless within the U.S. as the Centers will come onboard in a waterfall schedule and not all at once. There was some confusion among the audience regarding whether or not pilots who log into the system on the ground will remain logged in or if they will need the warning in flight. Valerie pointed out that enroute CPDLC is still in testing and there are still many unanswered questions regarding what will be required/expected of pilots. She committed to organizing another meeting of the CPDLC Workgroup to address these questions.

<u>ACTION</u>: Valerie Watson, FAA/AJV-553, will set up a meeting with the CPDLC Workgroup to continue discussion of the Enroute application of CPDLC.

MEETING 18-02

Valerie Watson, FAA/AJV-553, provided an update on CPDLC implementation. Valerie showed the audience the <u>revised waterfall map</u> and highlighted the changes regarding the roll out plan. She said that the rollout is projected to start with Cleveland Center (ZID) on 11/1/18, Kansas City (ZKC) on 11/26/18 and Memphis (ZME) on 12/20/18. She voiced that these are estimated dates of commissionings pending final word from the Data Comm Program Office. She stated that communication of the commissionings will initially be covered by NOTAM. As they are commissioned, the Data Comm Program Office, FAA/AJM-34, will provide the source data to the National Flight Data Center (NFDC). NFDC will then publish "CPDLC (LOGON KUSA)" as an ARTCC General Remark in the subject Center file within NASR. This NASR change will cause the text to be added to the Enroute Charts along the ARTCC boundary associated with

the Center identifier text. Charts will likely not reflect these changes until the 3 Jan 2019 effective date.

Valerie added that the Aeronautical Information Manual (AIM) language for Enroute CPDLC was published in the <u>13 September 2018 edition</u>. She asked that the audience read over the AIM language and submit comments.

MEETING 19-01

Jesse Wijntjes, FAA/AJM-34, reviewed the <u>history and background of the CPDLC program</u>. He highlighted the success of the CPDLC Departure Clearances (DCL) deployment to 62 Control Towers and showed how resulting efficiencies continue to increase.

Michael Stromberg, UPS, asked if there is a plan to increase the number of towers with Digital-Automatic Terminal Information Service (D-ATIS). Jesse said there is a list of over 2,000 airports that would like D-ATIS, but explained that there is a monetary cost to implementation. He suggested that users continue requesting D-ATIS.

Jesse then discussed the change in the rollout schedule for Enroute CPDLC. He said that during the testing at key sites, interoperability issues arose. He reported that avionics and network issues were in the process of being resolved when the government shutdown halted all testing. Testing restarted at ZKC and ZID at the end of March and work continues to resolve interoperability issues. The revised initial services deployment waterfall is not yet finalized, but Jesse stated that the rollout on the east coast is expected by the summer of 2020 and the entire project should be completed by June of 2021.

Lev Prichard, APA, asked if a pilot is required to log back into the system when flying from an overlying center without CPDCL into one with CPDLC. Jesse replied that no, once logged into the system, the session stays active.

Steve Woodbury, Flight Safety International, asked if the notification of the deployment of Enroute CPDLC services will be broadcast through the NOTAM system. Jesse said they are not planning to issue NOTAMs, but they will be using other outreach mechanisms to get the word out. Rich Boll, NBAA, expressed concern at this, voicing that the original plan was to wait for NOTAMs as the signal to begin outreach to operators. Lynette McSpadden, FAA/AJR-B3, suggested that there are ways that the NOTAM Office can help, such as using an FDC NOTAM or a Commissioning NOTAM with a date to let pilots know when the system will be usable.

Valerie Watson, FAA/AJV-A250, pointed out that the system will likely be active and accessible to users for some time before the Enroute CPDLC capability is depicted on the Enroute charts. The charting office needs to know a system is fully operational and out of the testing phase at least 30 days before the effective date of the chart in order for it to be published. She suggested that it might be wise to begin public outreach when the system is usable and not wait for chart publication.

Jesse said that they anticipate that the transition to using enroute CPDLC will be fairly seamless for pilots. Users will receive notification in the cockpit when the system is available for use.