

AERONAUTICAL CHARTING MEETING
Charting Group
Meeting – October 28 - 29, 2020

RECOMMENDATION DOCUMENT

FAA Control # 20-02-348

Subject: NASR Improvements to Handle ARTCC/RCAG Frequencies

Background/Discussion:

NASR features a resource called Air Route Traffic Control Center, which stores all ARTCC frequencies in the NAS. IFR terminal procedure (SID/STAR/IAP) charts occasionally list these frequencies in the header when an ARTCC provides approach and departure service at that airport. There is currently a substantial completeness issue where the data attribution of charted CENTER (ARTCC) frequencies in NASR is incomplete, which prevents database suppliers from including these frequencies in ARINC 424 PV (Airport Communication) records.

NASR's ARTCC resource is organized by RCAG (remote control air-ground) site. The names of each RCAG site are depicted on the "postage stamps" on IFR Enroute charts:



IFR Enroute charts include sectorization lines which provide clear links to these ARTCC frequencies. These, in turn, correspond with RCAG sites as depicted in eNASR:

RCAG Frequencies			
Item 36 of 131			
Site Name:	EL PASO/B/		
State Code:	TX		
Frequency:	128.2		
Altitude:	LOW		
Usage:			
Charted:	<input checked="" type="checkbox"/>		
Serviced Airports			
Airport ID	Airport Name	City	State
DMN	DEMING MUNI	DEMING	NM
LRU	LAS CRUCES INTL	LAS CRUCES	NM

“Serviced airports” are listed for some RGAC sites, and such links are indicative of frequency use by one or more IFR Terminal procedures at those airports.

DEMING, NEW MEXICO

AL-478 (FAA)

20058

WAAS CH 70419 W22A	APP CRS 222°	Rwy Idg 5675 TDZE 4310 Apt Elev 4314	<h2>RNAV (GPS) RWY 22</h2> <p>DEMING MUNI (DMN)</p>
<p>⚠ DME/DME RNP-0.3 NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -23°C (-9°F) or above 40°C (104°F). Baro-VNAV NA when using Las Cruces altimeter setting.</p> <p>⚠ When local altimeter setting not received, use Las Cruces altimeter setting and increase all DA 114 feet and all MDA 120 feet; increase LPV and LNAV/VNAV all Cats visibility ¼ mile, increase LNAV Cats C and D visibility ¼ mile, increase Circling Cat B visibility ¼ mile and Circling Cats C and D visibility ½ mile. Rwy 22 helicopter visibility reduction below 1 SM NA. Straight-in Rwy 22 NA at night, Circling Rwy B, 22 NA at night.</p>			
<p>ASOS 118.525</p>		<p>ALBUQUERQUE CENTER 128.2 285.5</p>	
<p>UNICOM 122.8 (CTAF) 0</p>			

Provided such links are set consistently across all procedure types for all airports, each airport with charted CENTER/ARTCC frequencies should appear as a “Serviced Airport” under the RCAG site(s) that serves the airport. These links would enable ARINC 424 database suppliers to identify *all* relevant airport communication frequencies (as used on IFR Terminal procedures) and include them as coded PV records. This is currently not the case, however, and NASR omissions exist across almost all ARTCC facilities. It is entirely likely for an IFR Terminal procedure to chart an ARTCC frequency without its airport being listed as a “Serviced Airport” in the NASR Air Route Traffic Control Center resource.

(JAIKE.JAIKE3) 20198

AL-890 (FAA)

JAIKE THREE ARRIVAL (RNAV)

TETERBORO, NEW JERSEY

<p>WASHINGTON CENTER 132.52 NEW YORK APP CON 132.8 379.9 CDW ARR ATIS 132.8</p>	
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ARTCC ZDC

General Radar & Frequencies Airports Nav aids

Radar Sites

Site Name	State	Radar Type
BEDFORD	VA	ARSR
BENSON	NC	ARSR
BINNS HALL	VA	ARSR
FORT FISHER	NC	ARSR
PITTSBURGH(OAKDALE)	PA	ARSR
RIVERHEAD	NY	ARSR
THE PLAINS	VA	ARSR
TREVOSE	PA	ARSR

RCAG Frequencies 61 of 103

Site Name: MODENA
State Code: PA
Frequency: 132.525
Altitude: LOW
Usage: DISCRETE
Charted:

Serviced Airports

Airport ID	Airport Name	City	State

Recommendations:

Garmin recommends that a day-forward change be made to the processing and NASR storage of charted ARTCC frequencies on IFR terminal procedures. Each ARTCC frequency used or shown on such a procedure should trigger its respective airport to be listed as a “Served Airport” in NASR. This would enable the NASR database to more accurately reflect the uses of various ARTCC/RCAG frequencies, as well as enable ARINC 424 database suppliers to reference NASR when creating PV records for each airport. The result would be a complete set of PV records, to include each charted frequency regardless of type, for each airport served by a given procedure. The pictured example (JAIKE.JAIKE3) serves KTEB, KMMU, KCDW, KLDJ, KSMQ, and 47N. Without these 6 airports shown in NASR as Served Airports for the 132.525 RCAG frequency, database suppliers have no way of including 132.525 as a PV record at the airports.

In addition, the “Usage” field should also be populated to indicate these frequencies are used on terminal procedures. Potential implementations are shown below denoted with asterisks.

RCAG Frequencies			
Item 61 of 103			
Site Name:	MODENA		
State Code:	PA		
Frequency:	132.525		
Altitude:	LOW		
Usage:	DISCRETE, *IAP*, *STAR*		
Charted:	<input checked="" type="checkbox"/>		
Served Airports			
Airport ID	Airport Name	City	State

Comments:

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MEETING 20-02

Steve Madigan, Garmin, presented the new recommendation. He explained that in the National Airspace System Resource (NASR) there is a resource for Air Route Traffic Control Center (ARTCC) that contains ARTCC frequencies. The problem is that the frequencies stored here are not organized in a way that allows database suppliers to use this data to create a complete airport communication record. Garmin recommends that NASR list each ARTCC frequency shown on IFR terminal procedures referenced to the subject airport as a "Serviced Airport". This would enable the NASR database to more accurately reflect the uses of the various ARTCC frequencies and enable ARINC 424 database suppliers to use NASR to create a complete airport communication record for each airport.

Rocky Rizzutti, FAA/AJV-A313, said that the Aeronautical Data Team is aware of this limitation in NASR and that they have received similar requests from the Terminal Charting Team. He said that the database has limitations regarding the storage of ARTCC data and that is why they are not currently able to tag specific frequencies to serviced airports.

Valerie Watson, FAA/AJV-A250, stated that as far as the recommendation relates to arrivals and departures, there is a related ACM item ([17-02-312](#)) that is working toward the standardization of communications on Departure Procedures (DPs) and Standard Terminal Arrival (STAR) charts. As procedures are amended, only ATIS and APP CON will be shown on STARs and only DEP CON on DPs unless other communications are specifically requested on the procedure source form. Center frequencies should begin to be removed from DPs and STARs in the future. Steve said he is familiar with that related recommendation, but that those changes are going to take time for widespread implementation and he is concerned about getting this problem fixed in the interim. Valerie agrees that this change will take several years and that it will not fix all of these issues.

Krystle Kime, FAA/AJV-A222, said that part of the problem is that frequencies are submitted from a variety of sources. It is her hope that with the standardization of the DP and STAR communications, Center frequencies will not be requested as often in the future on those procedures. Rocky said that based on the previous request from Terminal Charting, his team has already submitted the request to update NASR. Scott Jerdan, FAA/AJV-A310, stated that this represents a significant change to NASR and his office currently has limited ability to push through large scale NASR changes. Brian Murphy, FAA/AJV-A350, said this request had not been given a high priority, but they are still aware of the need for this change. He agreed with Krystle that part of the problem is the mix of data sources for this information and he voiced the data flow will have to be documented ahead of the system change.

Valerie summarized that there is concurrence that a change is needed in NASR for accommodating ARTCC frequencies referenced to the airports/procedures they serve and though it may take time to accomplish, the update should be supported.

STATUS: OPEN

ACTION: Brian Murphy, FAA/AJV-A350, will report on the status of the request to improve the databasing of Air Route Traffic Control Center (ARTCC) frequencies in the National Airspace System Resource (NASR) database.