# 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 Frequencie	s 📢 🖣 Item 36 of 131 🕨 🕅 🍣						
Site Name:	EL PASO/B/						
State Code:	TX						
Frequency:	128.2						
Altitude:	LOW						
Usage:							
Charted:							
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) 200					
WAAS CH 70419 W22A APP CRS 222° Rwy Id TDZE Apt Ele	4310						
<ul> <li>DME/DME RNP-0.3 NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below</li> <li>23°C (-9°F) or above 40°C (104°F). Baro-VNAV NA when using Las Cruces altimeter setting.</li> <li>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 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.</li> </ul>							
ASOS 118.525		ALBUQUERQUE CENTER 128.2 285.5	-	NICOM 8 (CTAF) 🚺			

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.

JAIK	E THREE	AKKIV	AV)	TETERBORO, NEW JERSEY				
WASHINGTON CENTER 132.52 NEW YORK APP CON 132.8 379.9 CDW ARR ATIS								
ARTCC ZDC								
General Ra	dar & Frequencies	Airports	Navaids					
Radar Sites								
Site Name			State		Radar Type			
BEDFORD 🤍			VA		ARSR			
BENSON			NC		ARSR			
BINNS HALL 🧶			VA		ARSR			
FORT FISHER		NC		ARSR				
PITTSBURGH(OAKDALE) 🖑		PA	PA		ARSR			
RIVERHEAD 🍳			NY		ARSR			
THE PLAINS			VA		ARSR			
TREVOSE 🤍			PA		ARSR			
RCAG Frequenc	ies 🚺 🖣 Item	61 of 103						
Site Name:	MODENA							
State Code:	PA							
Frequency:	132.525							
Altitude:	LOW							
Usage:	DISCRETE							
Charted:								
Serviced Airpo	rts							
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 "Serviced 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 Serviced 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 🛛 4 Item 61 of 103 🕨 🕅 🎘								
Site Name:	e Name: MODENA							
State Code:	PA							
Frequency:	132.525							
Altitude:	LOW							
Usage:	DISCRETE, *IAP*, *STAR*							
Charted:	V							
Serviced Airports								
Airport ID	Airport Name	City	State					

#### Comments:

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