

11/30/2023

FOR YOUR INFORMATION

2023-194/8-8

To: Airport Manager, Kansas City Intl, (MCI), MO., FAA (AAS-1, ATM MCI TRACON)

2036150

Info: FAA (ACE-600, AFS-260, AFS-200, AJI-144, AVP-1, AJV-A, AVP-200, Director of Air Traffic Operations CSA), A4A, AAAE, ALPA, APA, ASAP, ATSAP, ATSG, CAPA, IATA, IBT, ICAO, ICASS, IFALPA, IPA, NATCA, NTSB, RAA, SWAPA

From: Becky L. Hooey, Director
NASA Aviation Safety Reporting System

Re: MCI RUDHH3 STAR Excessively Steep Profile

We recently received ASRS reports describing a safety concern that may involve your area of operational responsibility. We do not have sufficient details to assess either the factual accuracy or possible gravity of the report. It is our policy to relay the reported information to the appropriate authority for evaluation and any necessary follow-up. We feel you should be aware of the enclosed deidentified report.

To properly assess the usefulness of our alert message service, we would appreciate it if you would take the time to give us your feedback on the value of the information that we have provided. Please contact Dr. Becky Hooey at (408) 541-2854 or email at becky.l.hooey@nasa.gov.



Aviation Safety Reporting System
P.O. Box 189 | Moffett Field, CA | 94035-0189



ACN 2036150**DATE / TIME**

Date of Occurrence 202309
Local Time Of Day No Local Time Of Day Stated

PLACE

Locale MCI.TRACON
State MO
Altitude - MSL 3300

ENVIRONMENT

Flight Conditions VMC
Weather Haze / Smoke

AIRCRAFT / EQUIPMENT X

ATC / Advisory - Center ZKC
ATC / Advisory - TRACON MCI
Make Model Name A319
Operating Under FAR Part 121

PERSON 1

Function - Flight Crew First Officer
Function - Flight Crew Pilot Flying
ASRS Report Number 2036150

PERSON 2

Function - Flight Crew Captain
Function - Flight Crew Pilot Not Flying
ASRS Report Number 2036156

EVENTS

Anomaly Deviation - Altitude - Crossing Restriction Not Met
Anomaly Deviation - Altitude - Undershoot
Anomaly Deviation / Discrepancy - Procedural - Clearance
Anomaly Deviation / Discrepancy - Procedural - Published
Material / Policy
Detector - Automation Aircraft Other Automation
Detector - Person Flight Crew
Result - Flight Crew Requested ATC Assistance / Clarification

NARRATIVE 1

Flying the RUDDH3 arrival from over BULET. ATC kept us high due to crossing traffic below us and then slowed us during the descent. When they gave us a descent clearance we were almost 6,000 ft. above profile. I had briefed and planned arrival to 19L based on Captains most recent experience there. During descent we were cleared to descend via "landing south". On the chart there are two profiles landing south. Both have bottom altitudes of 4,000 ft. but different routing. I have never been given a descend via clearance without know what my routing is. I believe that is a very sloppy clearance. We queried ATC and he said they have had many pilots question it. Just before RUDDH we were handed off to approach and assigned 19R. Despite being left high and speed restricted at 270 knots I was able to make the crossing restriction of 12,000 at RUDDH.

In the meantime the PM (pilot Monitoring) is loading 19R and I am reviewing then briefing the ILS approach to 19R. Just before SCIPR we are cleared for the ILS19R. Since I had a managed descent going the PM put 2400 ft. in the altitude window for PEAKA. We did have a "too steep" message on FMGC after BRTNY and I planned to just use speed brakes and turn off automation if needed. The ILS 19R JEPP 41-5 page is overly crowded and difficult to read with too many ball notes. I did note all the appropriate ball notes and restrictions with those. We crossed SCIPR at 210 knots 4,000 ft. Then on the autopilot descended to 3300 ft. and slowed to 180kts as we approached BRTNY. We crossed BRTNY at 3300 ft. After that, the profile was too steep to lose 800 ft. in just 1.8 miles. I turned off the autopilot and used full speed brakes to make the mandatory altitude of 2500 ft. at MADTG. But it was still not enough we crossed MADTG 200 ft., 300 ft. high. This was all happening as the glideslope is centering and we are trying to visually pick up the airport in the haze. This segment from BRTNY to MADTG is too steep for such a short distance. To lose 800 ft. in 1.8nm can be difficult and there is no way a managed descent on autopilot can make that. If there is a tailwind it is very challenging.

NARRATIVE 2

Our flight was filed into MCI via the RUDDH 3 RNAV Arrival Dated 4 AUG 23 with the BULET Transition. Our flight was cleared to "Descend Via the RUDDH 3 Arrival Landing South". The RUDDH 3 is a newly revised STAR, and the clearance is rather confusing. After passing the PAHLL intersection, one would have to fly a different transition depending on if they were landing on Runway 19L or 19R. When we queried the Kansas City Center controller which runway transition he would like us to fly, his response was "Pick a runway because you will not get a runway assignment until closer in when you're talking to Approach". We elected to select and brief the Runway 19L transition on the STAR.

Shortly before passing the RUDDH intersection we handed off to Approach and subsequently assigned the ILS Runway 19R. The Runway change also required us to re-brief the STAR while we also re-briefed the approach for our new runway 19R. On our arrival today, ATC left us high due to another aircraft in our vicinity, taking our attention from the required briefings.

Our next issue was when flying the ILS 19R approach dated 18 AUG 23. Approach cleared us "after passing SCIPR you are cleared for the ILS 19R approach". The approach plate shows several mandatory crossing altitudes. The most challenging being BRTNY intersection (9.1 IPAJ DME) at 3,300 ft. followed by a steep rate of descent so as to cross MADGT intersection (7.3 IPAJ DME) at a Mandatory 2,500 ft. MSL. This is an 800 foot altitude loss with only 1.8nm to do it. Today we were flying an A319 at 180 knots and at Flaps 2 with the Autopilot off in a 5 knot headwind component. We tried our best to make this crossing only to be task saturated shortly afterwards because the Glideslope Intercept is only 1 nm later at the PEAKA intersection at 2,400 ft. There is too much going on in this approach for an airport that doesn't have airspace restrictions. This approach is a CAT III capable approach. I don't believe the autopilot in the Airbus or any transport category aircraft at my airline could have made MADTG at 2,500 ft. while beginning a descent after crossing BRTNY at 3,300 ft.

SYNOPSIS

Air Carrier flight crew reported the new RUDHH3 STAR to MCI has a crossing restriction requiring a 800 ft. descent in 1.8 miles with which the A319 cannot comply.