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**CAR/SAM Planning and Implementation Regional Group (GREPECAS)**  
**Twenty Fourth Scrutiny Working Group Meeting (GTE/24)**  
Mexico City, Mexico, 5 to 9 August 2024

**Agenda Item 3: Review of the Results of Large Height (LHD) and the Collision Risk Model (CRM) Analysis**  
**3.7 Report on the Flight Plan Audit**

**NAARMO RVSM TRAFFIC COMPLIANCE MONITORING**

(Presented by NAARMO)

**EXECUTIVE SUMMARY**

This paper provides an assessment of civilian operators using the Reduced Vertical Separation Minimum (RVSM) airspace overseen by the North American Approvals Registry and Monitoring Organization (NAARMO) in Mexico, Canada, the United States and New York West airspace. The assessment process is described and the results for period December 2023 are presented for the contiguous United States, Canada, and Mexico. The results for the period December 2023 and January 2024 are presented for New York West airspace. RVSM approval records as of June 2024 were used in this assessment.

*References:*

- Doc 9937 - Operating Procedures and Practices for Regional Monitoring Agencies in Relation to the Use of a 300 m (1000 ft) Vertical Separation Minimum Between FL 290 and FL 410 Inclusive, International Civil Aviation Organization, First Edition - 2010.

**1. Introduction**

1.1 The North American Approvals Registry and Monitoring Organization (NAARMO), a service provided by the U.S. Federal Aviation Administration's William J. Hughes Technical Center, has served since 2003 as the Regional Monitoring Agency (RMA) for the airspace covering the United States, Canada, and Mexico.

1.2 As part of the duties of an RMA, outlined in ICAO Doc 9937 (Reference 1), the NAARMO performs regular checks of the operator compliance with State approval requirements within the North American airspace as well as New York West portions of the NAARMO-delegated oceanic airspace. The purpose of these checks is to ensure the safety of the airspace by identifying non-approved operators and aircraft.

1.3. This paper describes the process used by the NAARMO to identify airframes operating within RVSM airspace, FL290 to FL410 for which an RVSM approval could not be confirmed. This is accomplished through systematic process of matching air traffic movement data and airframe approval records. The results for December 2023 within RVSM are presented for Mexico, Canada, and the contiguous United States (CONUS). The results for the period of December 2023 and January 2024 are presented for New York West airspace.

## 2. DISCUSSION

2.1. The air traffic movement data used for the CONUS traffic scrutiny is obtained from the FAA's Traffic Flow Management System (TFMS) merged with NASQuest, an internal FAA database containing flight information data. The TFMS is a data exchange system that supports the management and monitoring of national air traffic.

2.2. To verify the RVSM approval status of the operations identified in the traffic movement data sample NAARMO uses the Combined Approvals snapshot shared on the ICAO RMA KSN website. The Combined Approvals snapshot contains the approval records provided by the collective RMAs; an updated snapshot is shared to the ICAO RMA KSN monthly.

2.3. For this assessment period, the NAARMO received traffic sample data (TSD) for Mexico airspace. The data included flight observations from three of the four Area Control Centers (ACCs) Mérida (MMID), Monterrey (MMTY), and Mazatlán (MMZT). NAARMO is currently working with AFAC Mexico to obtain TSD from the remaining ACC Mexico (MMEX). December 2023 TSD was provided for Canadian airspace.

2.4. All records containing flight plan and position report information are compiled for operations within the RVSM airspace. A summary of unique operations is then produced. Contained exclusively within this summary are flights that are observed to maintain an RVSM flight level during flight and to indicate RVSM approval in their flight plans. For the analysis period December 2023, the count of operations within the CONUS airspace FL290-FL410 inclusive is 1,036,295.

2.5. Audit procedures include a process to identify US registrations operating under the provisions of Section 9. The process categorizes the approval status when auditing the traffic samples by looking at the date of the flight and any specific RVSM approvals the aircraft may hold or have held in that period. The analyst can take appropriate action based on the category returned and decide whether to follow up internally or send results to the responsible RMA as appropriate.

2.6. Each entry in the traffic samples containing observed operations within Canada, Mexico, the United States and New York West airspace were compared with the combined approvals snapshot between November 2023 and June 2024 to determine the approval status of the airframe. The entries where no approval or an expired approval are identified for further verification.

2.7. The verification process determines possible reasons for removing entries. These reasons include but are not limited to:

- lags in State notification of approval to the RMA
- lags in updates to the RVSM approvals database

- mistakes and typographical errors in the original traffic data
- exported, deregistered, or changes to registration numbers after analysis period.

2.8. Table 1 provides a summary of the results of the NAARMO traffic RVSM compliance survey for the CONUS airspace following the initial verification process. This table contains a total of 129 civilian aircraft with non-approved operations from 10 states listed alphabetically by RMA. The count next to the State represents the number of airframes seen in the December 2023 traffic sample. Some Registrations have multiple operators and multiple AC Types listed due to various issues with the traffic sample as noted in Paragraph 2.7. Six aircraft identified in bold font were repeated from the previous year's audit.

RMA	STATE	REG	OPR (ICAO AC TYPE)	OPS
CARSAMMA	Argentina	LVKEB	IGA(GLF4)	4
CARSAMMA	Argentina	LVKFQ	IGA(CL60)	4
CARSAMMA	Argentina	LVKHT	ARG(A332)	2
CARSAMMA	Argentina	LVKKF	IGA(CL60)	3
CARSAMMA	Bahamas	C6BFA	BHS(B737)	19
CARSAMMA	Bahamas	C6BFX	BHS(B737)	50
CARSAMMA	Bahamas	C6BFY	BHS(B737)	187
CARSAMMA	Bahamas	C6BFZ	BHS(B737)	183
CARSAMMA	Bahamas	C6BRD	REE(ASTR)	10
CARSAMMA	Bahamas	C6GAR	WST(E145)	188
CARSAMMA	Bahamas	C6JET	IGA(C650)	4
CARSAMMA	Bahamas	C6MAM	IGA(E145); WST(E145)	74
CARSAMMA	Bahamas	C6PAM	WST(E145)	230
<b>CARSAMMA</b>	<b>Bahamas</b>	<b>C6ROV</b>	<b>GGT(LJ60)</b>	<b>7</b>
CARSAMMA	Bahamas	C6SAR	WST(E145)	190
CARSAMMA	Bahamas	C6SAW	IGA(E145); WST(E145)	228
CARSAMMA	Bahamas	C6ZIP	GGT(LJ60)	22
CARSAMMA	Brazil	PRGKQ	IGA(E545)	2
CARSAMMA	Brazil	PRJTS	IGA(MU30)	2
CARSAMMA	Brazil	PSDEY	IGA(BE40)	5
CARSAMMA	Brazil	PSGAC	IGA(BE20)	4
CARSAMMA	Venezuela	YV3049	IGA(ASTR)	2
CARSAMMA	Venezuela	YV3189	IGA(C560)	4
CARSAMMA	Venezuela	YV3394	IGA(C25A)	2
CARSAMMA	Venezuela	YV3404	IGA(LJ55)	4
RMA	STATE	REG	OPR (ICAO AC TYPE)	OPS
EURRMA	France	FHAHF	N96(TBM9)	9
EURRMA	France	FONGX	STB(PC12)	51
RMA	STATE	REG	OPR (ICAO AC TYPE)	OPS
MAAR	India	VTBXB	AXB(B38M)	2
MAAR	India	VTBXE	AXB(B38M)	2
MAAR	India	VTBXH	AXB(B38M); IX0(B38M)	2

MAAR	India	VTBXI	AXB(B38M)	2
MAAR	India	VTBXJ	AXB(B38M)	2
MAAR	Pakistan	APXAA	DT6(GL5T)	5
<b>RMA</b>	<b>STATE</b>	<b>REG</b>	<b>OPR (ICAO AC TYPE)</b>	<b>OPS</b>
NAARMO	Canada	CFAFE	FEX(CL60)	12
NAARMO	Canada	CFRUU	PBR(TBM8)	3
NAARMO	Canada	CFVPK	IGA(PC12)	13
NAARMO	Canada	CFXDP	PHX(WW24)	25
<b>RMA</b>	<b>STATE</b>	<b>REG</b>	<b>OPR (ICAO AC TYPE)</b>	<b>OPS</b>
NAARMO	Mexico	XAAAL	IGA(H25B)	13
NAARMO	Mexico	XAAFT	TAA(SW4)	4
NAARMO	Mexico	XAARR	IGA(GLF4)	3
NAARMO	Mexico	XAASP	IGA(CL60)	2
NAARMO	Mexico	XAASR	IGA(H25B)	7
NAARMO	Mexico	XACNC	IGA(H25B)	8
NAARMO	Mexico	XAFDK	IGA(GLF5)	4
NAARMO	Mexico	XAFOF	IGA(GLF4)	8
NAARMO	Mexico	XAGAN	IGA(CL35)	3
NAARMO	Mexico	XAGNS	AMX(B38M)	85
NAARMO	Mexico	XAHEL	IGA(H25B)	24
<b>NAARMO</b>	<b>Mexico</b>	<b>XAIZA</b>	<b>IGA(H25B)</b>	<b>11</b>
NAARMO	Mexico	XALCD	IGA(H25B)	6
NAARMO	Mexico	XALEX	IGA(H25B)	11
NAARMO	Mexico	XALON	IGA(GLF4)	3
NAARMO	Mexico	XAMIO	VTM(SW4)	4
NAARMO	Mexico	XAMMN	IGA(LJ35)	4
NAARMO	Mexico	XAMOC	IGA(CL60)	3
NAARMO	Mexico	XAOFM	IGA(CL60)	9
NAARMO	Mexico	XAORL	IGA(H25B)	2
NAARMO	Mexico	XAOVR	IGA(GLF6)	2
NAARMO	Mexico	XAPKR	IGA(GALX)	4
<b>NAARMO</b>	<b>Mexico</b>	<b>XAPSO</b>	<b>IGA(H25B)</b>	<b>6</b>
NAARMO	Mexico	XARAN	IGA(LJ75)	6
NAARMO	Mexico	XARFS	IGA(C56X)	4
NAARMO	Mexico	XASCZ	IGA(LJ75)	2
NAARMO	Mexico	XASRR	IGA(LJ35)	6
NAARMO	Mexico	XAUKI	IGA(BE30)	3
NAARMO	Mexico	XAUKJ	VTM(SW4)	2
NAARMO	Mexico	XAUQB	TAA(SW3)	2
NAARMO	Mexico	XAUSG	VTM(SW4)	7
NAARMO	Mexico	XAUUL	VTM(SW4)	2
NAARMO	Mexico	XAUUW	IGA(LJ35)	5
NAARMO	Mexico	XAUYQ	IGA(H25B)	4

<b>NAARMO</b>	<b>Mexico</b>	<b>XAVBH</b>	<b>VIV(A21N)</b>	<b>8</b>
NAARMO	Mexico	XAVBQ	VIV(A321)	28
NAARMO	Mexico	XAVBU	VIV(A321)	26
NAARMO	Mexico	XAVBZ	VIV(A21N)	10
NAARMO	Mexico	XAVCA	IGA(C550)	4
NAARMO	Mexico	XAVCM	IGA(LJ31)	6
NAARMO	Mexico	XAVCY	IGA(LJ35)	4
NAARMO	Mexico	XAVEG	IGA(C550); unk(C550)	10
NAARMO	Mexico	XAVET	IGA(GLF4)	9
NAARMO	Mexico	XAVFL	VTM(CRJ2); VTM(CRJ7)	13
NAARMO	Mexico	XAVFM	VTM(B734); VTM(B737)	7
NAARMO	Mexico	XAVFQ	VTM(CRJ2)	15
NAARMO	Mexico	XAVGB	VTM(B734); VTM(B737)	2
NAARMO	Mexico	XAVGC	VTM(CRJ2)	14
NAARMO	Mexico	XAVIP	VIV(A20N)	19
NAARMO	Mexico	XAVXD	VIV(A21N)	25
NAARMO	Mexico	XAVXF	VIV(A21N)	18
NAARMO	Mexico	XAVXK	VIV(A21N)	13
NAARMO	Mexico	XAVXP	VIV(A21N)	6
NAARMO	Mexico	XAVYA	VIV(A320)	26
NAARMO	Mexico	XAVYB	VIV(A320)	53
NAARMO	Mexico	XAVYD	VIV(A320)	45
NAARMO	Mexico	XAVYE	VIV(A320)	23
NAARMO	Mexico	XAXTR	IGA(GLF4)	10
NAARMO	Mexico	XAYNZ	IGA(E35L)	3
NAARMO	Mexico	XBANM	IGA(H25B)	4
NAARMO	Mexico	XBCAF	IGA(C650)	2
NAARMO	Mexico	XBEGU	IGA(LJ31)	7
NAARMO	Mexico	XBFXT	IGA(TBM9)	5
NAARMO	Mexico	XBGTH	IGA(LJ45)	2
NAARMO	Mexico	XBGTT	IGA(C650)	3
NAARMO	Mexico	XBIXT	IGA(C501)	3
NAARMO	Mexico	XBLVS	IGA(LJ45)	4
NAARMO	Mexico	XBLYY	IGA(C501)	3
NAARMO	Mexico	XBOAS	IGA(SBR1)	2
NAARMO	Mexico	XBPAT	IGA(LJ35)	3
NAARMO	Mexico	XBPAW	IGA(C550)	2
NAARMO	Mexico	XBPHP	IGA(C525)	2
NAARMO	Mexico	XBRJF	IGA(LJ45)	8
NAARMO	Mexico	XBRJT	IGA(H25B)	4
NAARMO	Mexico	XBRQX	IGA(H25B)	3
NAARMO	Mexico	XBRUR	IGA(LJ45)	6
NAARMO	Mexico	XBRVR	IGA(LJ31)	6

NAARMO	Mexico	XBSCM	IGA(LJ60)	2
NAARMO	Mexico	XBSGJ	IGA(BE40)	2
NAARMO	Mexico	XBSLJ	IGA(C650)	4
NAARMO	Mexico	XBSPM	IGA(SBR1)	2
NAARMO	Mexico	XBVRM	IGA(G280)	2
NAARMO	Mexico	XBWZN	IGA(CL60)	2
NAARMO	Mexico	XBYCC	IGA(BE40)	7
<b>RMA</b>	<b>STATE</b>	<b>REG</b>	<b>OPR (ICAO AC TYPE)</b>	<b>OPS</b>
NAARMO	United States	N290VJ	IGA(SF50)	2
NAARMO	United States	N428P	IGA(E55P)	2
NAARMO	United States	N505TC	IGA(FA50)	2
<b>NAARMO</b>	<b>United States</b>	<b>N680JK</b>	<b>IGA(C680)</b>	<b>6</b>
NAARMO	United States	N713YD	IGA(C25A)	5
NAARMO	United States	N73VR	IGA(FA7X)	1
NAARMO	United States	N815DT	IGA(GLF4)	2
<b>NAARMO</b>	<b>United States</b>	<b>N916KP</b>	<b>IGA(FA50)</b>	<b>1</b>

Table 1: Summary of the non-approved operations in CONUS airspace

2.9. The traffic sample for New York West airspace containing 29,230 operations was compiled from December 2023 and January 2024 Advanced Technologies and Oceanic Procedures (ATOP) data. Table 2 provides a summary of the results of the NAARMO traffic RVSM compliance survey for New York West airspace following the initial verification process. The results contain 3 civilian aircraft with non-approved operations from 3 States and are listed alphabetically by RMA.

<b>RMA</b>	<b>STATE</b>	<b>REG</b>	<b>OPR (ICAO AC TYPE)</b>	<b>OPS</b>
CARSAMMA	Argentina	LVKHT	ARG(A332)	4
<b>RMA</b>	<b>STATE</b>	<b>REG</b>	<b>OPR (ICAO AC TYPE)</b>	<b>OPS</b>
NAARMO	Mexico	XADOC	MTS(LJ35)	4
NAARMO	United States	N680JK	IGA(C680)	1

Table 2: Summary of the non-approved operations from New York West airspace.

2.10. Canada provided a December 2023 traffic sample containing 118,406 operations within RVSM airspace. Table 3 provides a summary of the results of the NAARMO traffic RVSM compliance survey for Canada following the initial verification process. The results are listed alphabetically by RMA. The results contain 20 civilian aircraft with non-approved operations from 5 States and are listed alphabetically by RMA. Some Registrations have multiple operators and multiple AC Types listed due to various issues with the traffic sample as noted in Paragraph 2.7. One aircraft identified in **bold font** was repeated from the previous year's audit.

<b>RMA</b>	<b>STATE</b>	<b>REG</b>	<b>OPR (ICAO AC TYPE)</b>	<b>OPS</b>
MAAR	India	VTBXB	AXB(B38M)	1
MAAR	India	VTBXE	AXB(B38M)	1
MAAR	India	VTBXH	AXB(B38M)	1
MAAR	Pakistan	APXAA	DT6(GL5T)	2
<b>RMA</b>	<b>STATE</b>	<b>REG</b>	<b>OPR (ICAO AC TYPE)</b>	<b>OPS</b>

NAARMO	Canada	CFAFE	FEX(CL60)	3
NAARMO	Canada	CFEPA	IGA(C510)	6
NAARMO	Canada	CFWVB	IGA(PRM1)	5
<b>NAARMO</b>	<b>Canada</b>	<b>CFXDP</b>	<b>PHX(WW24)</b>	<b>20</b>
NAARMO	Canada	CGBOT	CDR(CL60); NOJ(CL60)	5
NAARMO	Canada	CGLTG	IGA(TBM9)	4
NAARMO	Canada	CGZGX	BBA(GL7T); BBA(GLEX)	2
NAARMO	Canada	CGZYO	BFF(BE20)	7
NAARMO	Mexico	XAGNS	AMX(B38M)	16
NAARMO	Mexico	XAHEL	IGA(H25B)	2
NAARMO	United States	N110DM	IGA(M600)	3
NAARMO	United States	N347BS	IGA(FA50)	2
NAARMO	United States	N532JM	IGA(C68A)	2
NAARMO	United States	N565DR	IGA(C25A)	6
NAARMO	United States	N67PA	IGA(C25B)	3
NAARMO	United States	N713YD	IGA(C25A)	2

Table 3: Summary of the non-approved operations from Canada airspace

2.11. Mexico provided December 2023 traffic samples from ACCs Mérida (MMID), Monterrey (MMTY), and Mazatlán (MMZT) containing 49,152 operations within RVSM airspace. Table 4 provides a summary of the results of the NAARMO traffic RVSM compliance survey for Mexico airspace following the initial verification process. The results contain 180 civilian aircraft with non-approved operations from 5 States and are listed alphabetically by RMA. Some Registrations have multiple operators and multiple AC Types due to various issues with the traffic sample as noted in Paragraph 2.7. Eighteen aircraft identified in **bold font** were repeated from the previous year's audit.

RMA	STATE	REG	OPR (ICAO AC TYPE)	OPS
CARSAMMA	Argentina	LVKHT	ARG(A332)	32
CARSAMMA	Argentina	LVKHU	ARG(A332)	4
CARSAMMA	Chile	CCCPM	LPE(A319)	2
CARSAMMA	Chile	CCCPO	LPE(A319)	2
CARSAMMA	Chile	CCCQK	LPE(A319)	3
CARSAMMA	Venezuela	YV2770	AXH(LJ55)	3
CARSAMMA	Venezuela	YV3554	VCV(A342)	3
RMA	STATE	REG	OPR (ICAO AC TYPE)	OPS
NAARMO	Mexico	XAAAL	IGA(H25B)	6
NAARMO	Mexico	XAARO	IGA(CL30)	4
NAARMO	Mexico	XAASM	MXA(B737); MXA(B738)	7
<b>NAARMO</b>	<b>Mexico</b>	<b>XAASR</b>	<b>IGA(H25B)</b>	<b>9</b>
NAARMO	Mexico	XACHB	IGA(LJ75)	2
NAARMO	Mexico	XACIN	IGA(CL60)	4
NAARMO	Mexico	XACNC	IGA(H25B)	7
NAARMO	Mexico	XACZG	IGA(LJ35)	8

RMA	STATE	REG	OPR (ICAO AC TYPE)	OPS
<b>NAARMO</b>	<b>Mexico</b>	<b>XADLA</b>	<b>IGA(CL30)</b>	<b>6</b>
NAARMO	Mexico	XADLV	IGA(H25B)	2
NAARMO	Mexico	XADOC	IGA(LJ35); MTS(LJ35); MTS(LJ40); MTS(ZZZZ)	12
NAARMO	Mexico	XAEGD	VTM(B734)	11
NAARMO	Mexico	XAEGT	VTM(B733); VTM(B734)	23
NAARMO	Mexico	XAEME	ESF(B734)	16
<b>NAARMO</b>	<b>Mexico</b>	<b>XAEMX</b>	<b>ESF(B734)</b>	<b>19</b>
NAARMO	Mexico	XAESF	ESF(B734)	18
NAARMO	Mexico	XAEST	ESF(B734)	21
NAARMO	Mexico	XAFAP	IGA(GLF4)	2
<b>NAARMO</b>	<b>Mexico</b>	<b>XAFOF</b>	<b>IGA(GLF4)</b>	<b>4</b>
NAARMO	Mexico	XAFON	IGA(LJ75)	3
NAARMO	Mexico	XAGGB	ESF(B734); LCT(B734)	18
NAARMO	Mexico	XAGJC	IGA(C650)	5
<b>NAARMO</b>	<b>Mexico</b>	<b>XAGNS</b>	<b>AMX(B38M); AMX(B738)</b>	<b>44</b>
NAARMO	Mexico	XAHEL	IGA(H25B)	15
NAARMO	Mexico	XAHHH	IGA(P180)	2
NAARMO	Mexico	XAIZA	IGA(H25B)	5
NAARMO	Mexico	XAJTM	IGA(H25B)	4
NAARMO	Mexico	XAKCM	IGA(LJ60)	3
NAARMO	Mexico	XAKIM	IGA(CL60)	5
NAARMO	Mexico	XALCD	IGA(H25B)	3
NAARMO	Mexico	XALEX	IGA(H25B)	6
NAARMO	Mexico	XALTS	IGA(C680)	5
NAARMO	Mexico	XAMOC	IGA(CL60)	2
<b>NAARMO</b>	<b>Mexico</b>	<b>XAMSA</b>	<b>IGA(E35L)</b>	<b>9</b>
NAARMO	Mexico	XAOFM	IGA(CL60)	5
NAARMO	Mexico	XAPKR	IGA(GALX)	3
NAARMO	Mexico	XAPMS	IGA(CL60)	6
<b>NAARMO</b>	<b>Mexico</b>	<b>XAPSO</b>	<b>IGA(H25B)</b>	<b>5</b>
NAARMO	Mexico	XAQKY	IGA(F900)	2
NAARMO	Mexico	XARAN	IGA(LJ75)	5
NAARMO	Mexico	XARTS	IGA(C680)	3
NAARMO	Mexico	XARUV	EUS(E145); IGA(E145)	9
NAARMO	Mexico	XASEN	SEN(E135)	8
<b>NAARMO</b>	<b>Mexico</b>	<b>XASLG</b>	<b>ESF(B734)</b>	<b>21</b>
NAARMO	Mexico	XASRR	IGA(LJ35)	2
NAARMO	Mexico	XASTG	IGA(C750)	3
NAARMO	Mexico	XATUB	IGA(E545)	3
NAARMO	Mexico	XAUGJ	VTM(B734)	31



RMA	STATE	REG	OPR (ICAO AC TYPE)	OPS
NAARMO	Mexico	XAUKF	IGA(LJ35)	6
NAARMO	Mexico	XAUPZ	ACW(E55P)	19
NAARMO	Mexico	XAUUW	IGA(LJ35)	3
NAARMO	Mexico	XAUYQ	IGA(H25B)	3
NAARMO	Mexico	XAVAA	SWA(A320); VIV(A320)	57
NAARMO	Mexico	XAVAC	VIV(A320)	46
NAARMO	Mexico	XAVAE	VIV(A21N); VIV(A320); VTM(A320)	48
NAARMO	Mexico	XAVAJ	VIV(A320)	43
NAARMO	Mexico	XAVAK	VIV(A320)	45
NAARMO	Mexico	XAVAM	AMX(A320); DAL(A320); VIV(A320)	44
NAARMO	Mexico	XAVAN	LET(A320); VIV(A320)	49
NAARMO	Mexico	XAVAO	N78(A320); VIV(A320)	43
NAARMO	Mexico	XAVAP	VIV(A320)	19
NAARMO	Mexico	XAVAQ	VIV(A320)	43
NAARMO	Mexico	XAVAR	VIV(A320)	32
NAARMO	Mexico	XAVAT	ACA(A320); ENY(A320); VIV(A320)	44
NAARMO	Mexico	XAVAU	VIV(A320)	41
NAARMO	Mexico	XAVAV	DAL(A320); VIV(A320)	56
NAARMO	Mexico	XAVAW	AAL(A320); VIV(A320)	47
NAARMO	Mexico	XAVAX	N23(A320); VIV(A320)	34
NAARMO	Mexico	XAVAY	VIV(A320)	55
NAARMO	Mexico	XAVBA	AMX(A21N); ANZ(A21N); UAL(A21N); VIV(A21N)	52
NAARMO	Mexico	XAVBB	JBU(A21N); NCR(A21N); VIV(A21N)	49
<b>NAARMO</b>	<b>Mexico</b>	<b>XAVBH</b>	<b>VIV(A21N)</b>	<b>28</b>
NAARMO	Mexico	XAVBI	VIV(A21N); VIV(A321)	49
NAARMO	Mexico	XAVBJ	AAL(A321); GMT(A321); VIV(A321)	47
NAARMO	Mexico	XAVBK	DAL(A21N); VIV(A21N)	52
NAARMO	Mexico	XAVBM	PRE(A21N); VIV(A21N)	38
NAARMO	Mexico	XAVBN	VIV(A321)	20
NAARMO	Mexico	XAVBP	VIV(A321)	25
<b>NAARMO</b>	<b>Mexico</b>	<b>XAVBQ</b>	<b>CJT(A321); CRR(A321); VIV(A321)</b>	<b>46</b>
NAARMO	Mexico	XAVBR	VIV(A21N)	31
NAARMO	Mexico	XAVBS	N66(A21N); UAL(A21N); VIV(A21N)	50
NAARMO	Mexico	XAVBT	AAL(A321); N68(A321); VIV(A321)	46
<b>NAARMO</b>	<b>Mexico</b>	<b>XAVBU</b>	<b>SWA(A321); VIV(A321)</b>	<b>49</b>
NAARMO	Mexico	XAVBV	AAL(A321); ENY(A321); N37(A321); SLI(A321); VIV(A321)	53
NAARMO	Mexico	XAVBW	N11(A321); VIV(A321)	46
<b>NAARMO</b>	<b>Mexico</b>	<b>XAVBZ</b>	<b>VIV(A21N)</b>	<b>49</b>
NAARMO	Mexico	XAVCC	VIV(A321)	20
NAARMO	Mexico	XAVCE	GMT(B733)	31

RMA	STATE	REG	OPR (ICAO AC TYPE)	OPS
NAARMO	Mexico	XAVCM	IGA(LJ31)	3
NAARMO	Mexico	XAVCN	ASH(B733); GMT(B733); GTM(B733)	36
NAARMO	Mexico	XAVCY	IGA(LJ35)	2
NAARMO	Mexico	XAVDD	GMT(B733)	34
NAARMO	Mexico	XAVDM	GMT(B733); VIV(B733)	31
NAARMO	Mexico	XAVEG	IGA(C550)	5
NAARMO	Mexico	XAVFL	VTM(CRJ2); VTM(CRJ7)	6
NAARMO	Mexico	XAVFM	VTM(B734); VTM(B737)	20
NAARMO	Mexico	XAVFQ	VTM(CRJ2)	7
NAARMO	Mexico	XAVFT	VTM(B734); VTM(B737)	46
NAARMO	Mexico	XAVGB	VTM(B734); VTM(B737)	6
NAARMO	Mexico	XAVGC	VTM(CRJ2)	5
NAARMO	Mexico	XAVGD	VTM(B733); VTM(B734)	53
NAARMO	Mexico	XAVGQ	LCT(E145); VOI(E145)	19
NAARMO	Mexico	XAVIA	VIV(A20N)	42
NAARMO	Mexico	XAVIE	SWQ(A20N); VIV(A20N)	48
NAARMO	Mexico	XAVIF	VIV(A20N)	48
NAARMO	Mexico	XAVIH	VIV(A20N)	40
NAARMO	Mexico	XAVII	JUS(A20N); VIV(A20N)	46
NAARMO	Mexico	XAVIJ	VIV(A20N); VIV(A21N)	55
NAARMO	Mexico	XAVIK	VIV(A20N)	54
NAARMO	Mexico	XAVIL	ENY(A20N); VIV(A20N)	46
NAARMO	Mexico	XAVIM	UPS(A20N); VAV(A20N); VIV(A20N)	55
NAARMO	Mexico	XAVIN	ASH(A20N); VIV(A20N)	32
NAARMO	Mexico	XAVIP	VIV(A20N); VOI(A20N)	49
NAARMO	Mexico	XAVIS	CMP(A20N); VIV(A20N)	50
NAARMO	Mexico	XAVIT	VIV(A20N)	47
NAARMO	Mexico	XAVIU	VIV(A20N)	48
NAARMO	Mexico	XAVIV	AMX(A20N); VIV(A20N)	47
NAARMO	Mexico	XAVIX	VIV(A20N)	45
<b>NAARMO</b>	<b>Mexico</b>	<b>XAVXD</b>	<b>ASH(A21N); VIV(A21N)</b>	<b>44</b>
<b>NAARMO</b>	<b>Mexico</b>	<b>XAVXF</b>	<b>DAL(A21N); VIV(A21N); VIV(A320)</b>	<b>51</b>
NAARMO	Mexico	XAVXK	VIV(A21N)	43
NAARMO	Mexico	XAVXP	UAL(A21N); VIV(A21N)	49
<b>NAARMO</b>	<b>Mexico</b>	<b>XAVYA</b>	<b>VIV(A320)</b>	<b>45</b>
<b>NAARMO</b>	<b>Mexico</b>	<b>XAVYB</b>	<b>VIV(A320)</b>	<b>46</b>
<b>NAARMO</b>	<b>Mexico</b>	<b>XAVYD</b>	<b>AAL(A320); UAL(A320); VIV(A320)</b>	<b>47</b>
<b>NAARMO</b>	<b>Mexico</b>	<b>XAVYE</b>	<b>GMT(A320); VIV(A320)</b>	<b>52</b>
NAARMO	Mexico	XAXTR	IGA(GLF4)	5
NAARMO	Mexico	XAYNZ	IGA(E35L)	2

RMA	STATE	REG	OPR (ICAO AC TYPE)	OPS
NAARMO	Mexico	XBANM	IGA(H25B)	3
NAARMO	Mexico	XBDBT	IGA(C550)	3
NAARMO	Mexico	XBFIR	IGA(C550)	2
NAARMO	Mexico	XBFXT	IGA(TBM9)	2
NAARMO	Mexico	XBIXT	IGA(C501)	3
NAARMO	Mexico	XBLVS	IGA(LJ45)	4
NAARMO	Mexico	XPAT	IGA(LJ35)	3
NAARMO	Mexico	XBPHP	IGA(C525)	2
NAARMO	Mexico	XBRJT	IGA(H25B)	2
NAARMO	Mexico	XBRUA	IGA(C650)	2
NAARMO	Mexico	XBRVR	DAL(LJ31); IGA(LJ31)	6
NAARMO	Mexico	XBSCM	IGA(LJ60)	2
NAARMO	Mexico	XBSPM	IGA(SBR1)	2
NAARMO	Mexico	XBWZN	IGA(CL60)	2
NAARMO	Mexico	XBYCC	IGA(BE40)	5
NAARMO	Mexico	XCPFT	IGA(GLF2)	2
NAARMO	United States	N131PG	IGA(C650)	3
NAARMO	United States	N173A	IGA(SBR1)	2
NAARMO	United States	N2033	IGA(H25B)	2
NAARMO	United States	N214FT	HRC(FA50)	3
NAARMO	United States	N225AW	IGA(BE20)	2
NAARMO	United States	N232RV	IGA(H25B)	3
NAARMO	United States	N247RW	IGA(E50P)	2
NAARMO	United States	N280HX	IGA(G280)	2
NAARMO	United States	N313LH	IGA(GALX)	2
NAARMO	United States	N331SK	IGA(ASTR)	2
NAARMO	United States	N379LG	IGA(E550); IGA(E55P)	2
NAARMO	United States	N421LT	IGA(C56X)	2
NAARMO	United States	N446LG	IGA(E550)	2
NAARMO	United States	N540JL	IGA(C525)	4
NAARMO	United States	N550MK	IGA(C550)	2
NAARMO	United States	N559CB	IGA(CL60)	2
NAARMO	United States	N569RS	IGA(CL60)	3
NAARMO	United States	N623FC	IGA(LJ40)	3
NAARMO	United States	N68AR	IGA(H25B)	2
NAARMO	United States	N751MT	IGA(H25B); N86(H25B)	2
NAARMO	United States	N757JC	IGA(H25B)	2
NAARMO	United States	N783DL	IGA(C25M)	5
NAARMO	United States	N806MN	IGA(H25B)	2
NAARMO	United States	N815ST	IGA(PRM1)	2

RMA	STATE	REG	OPR (ICAO AC TYPE)	OPS
NAARMO	United States	N855MW	IGA(H25B)	2
NAARMO	United States	N875HB	IGA(HA4T)	2
NAARMO	United States	N900KU	IGA(F900)	2
NAARMO	United States	N920PT	IGA(C560); SLI(C560)	5
NAARMO	United States	N9851	IGA(P180)	2

Table 4: Summary of the non-approved operations from Mexico airspace

2.12. Table 5 summarizes aircraft that were observed in more than one ICAO region and are included on the EUR Bulletin of non-approved aircraft. Aircraft identified in italic font were repeated in multiple December 2023 Traffic Samples.

CONUS DEC 2023				
RMA	State	Registration	Operator (AC Type)	Operations
EURRMA	France	FHAHF	N96(TBM9)	9
<i>MAAR</i>	<i>India</i>	<i>VTBXB</i>	<i>AXB(B38M)</i>	<i>2</i>
<i>MAAR</i>	<i>India</i>	<i>VTBXE</i>	<i>AXB(B38M)</i>	<i>2</i>
<i>MAAR</i>	<i>India</i>	<i>VTBXH</i>	<i>AXB(B38M); IX0(B38M)</i>	<i>2</i>
NAARMO	Mexico	XAFDK	IGA(GLF5)	4
NAARMO	United States	N290VJ	IGA(SF50)	2
NAARMO	United States	N428P	IGA(E55P)	2
NAARMO	United States	N505TC	IGA(FA50)	2
<i>NAARMO</i>	<i>United States</i>	<i>N680JK</i>	<i>IGA(C680)</i>	<i>6</i>
<i>NAARMO</i>	<i>United States</i>	<i>N713YD</i>	<i>IGA(C25A)</i>	<i>5</i>
NAARMO	United States	N73VR	IGA(FA7X)	1
NAARMO	United States	N815DT	IGA(GLF4)	2
NAARMO	United States	N916KP	IGA(FA50)	1
NY West (DEC 2023/JAN 2024)				
RMA	State	Registration	Operator (AC Type)	Operations
<i>NAARMO</i>	<i>United States</i>	<i>N680JK</i>	<i>IGA(C680)</i>	<i>1</i>
Canada DEC 2023				
RMA	State	Registration	Operator (AC Type)	Operations
<i>MAAR</i>	<i>India</i>	<i>VTBXB</i>	<i>AXB(B38M)</i>	<i>1</i>
<i>MAAR</i>	<i>India</i>	<i>VTBXE</i>	<i>AXB(B38M)</i>	<i>1</i>
<i>MAAR</i>	<i>India</i>	<i>VTBXH</i>	<i>AXB(B38M)</i>	<i>1</i>
<i>NAARMO</i>	<i>United States</i>	<i>N713YD</i>	<i>IGA(C25A)</i>	<i>2</i>
Mexico DEC 2023				
RMA	State	Registration	Operator (AC Type)	Operations
CARSAMMA	Venezuela	YV3554	VCV(A342)	3

Table 5: Summary of the non-approved operations from EUR Bulletin

2.13. Experience has shown that the primary reason for failure to match operations and approvals is a delay in State notification of the approval status of some operators to the appropriate RMA. Thus, the importance of timely notification by States of operator approval status to RMAs is emphasized by these results.

2.14. The NAARMO has notified the pertinent RMAs and responsible states regarding the airframes detailed in this information paper and incorporated the feedback received.

### **3. CONCLUSION**

3.1. The meeting is invited to note and review the contents of the NAARMO traffic scrutiny work presented in this paper.