



Oceanic Workgroup (OWG) 2023

February 7th, 2023

San Francisco Commissions BLDG. 674



COMUNICACIONES

SECRETARÍA DE INFRAESTRUCTURA, COMUNICACIONES Y TRANSPORTES



SENEAM

SERVICIOS A LA NAVEGACIÓN EN EL ESPACIO AÉREO MEXICANO



2023
AÑO DE
Francisco VILLA

EL REVOLUCIONARIO DEL PUEBLO

MAZATLÁN OCEÁNICA MMFO



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ADJACENT FIR's

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ADJACENT FIR's



STATUS:

Since 2013, the possibility and need to assume control of the airspace defined in the MMFO FIR has been raised.

Since then, important steps have been taken towards that goal with notable advances.

Currently, a flight information and alert service is provided through a Communications link provided by ARINC communications company, which has HF and satellite ADS-C for communication with aircraft. At MMZT ACC there is an interface named (AVINET) which allow to communicate through messaging with ARINC and then the message is retransmitted to the aircraft.

CLASS G TO CLASS A



At the time, the Project was divided into 3 (three) phases:

PHASE I, Class “G” / communications via ARINC (Voice Relay Service)

PHASE II, Class “A” / communications via ARINC (Voice Relay Service) and AVINET

**PHASE III, Class “A” / communications via ARINC (Voice Relay Service) and AVINET
ADSC-CPDLC**



PHASE I.- CLASS G OPERATIONAL CONCEPT

- **Flight information service at EAS within the MMFO (Doc. 4444 – Chapter 9 Flight Information Service and Alert Service)**
- **Visualization in the TOPSKY system through Flight Plan Tracks.**
- **Pilot Controller Communication via ARINC (VOICE RELAY SERVICE)**
- **Exchange of automated messages in AIDC and/or ICAO protocol**



PHASE I.- CLASS G LOA´s

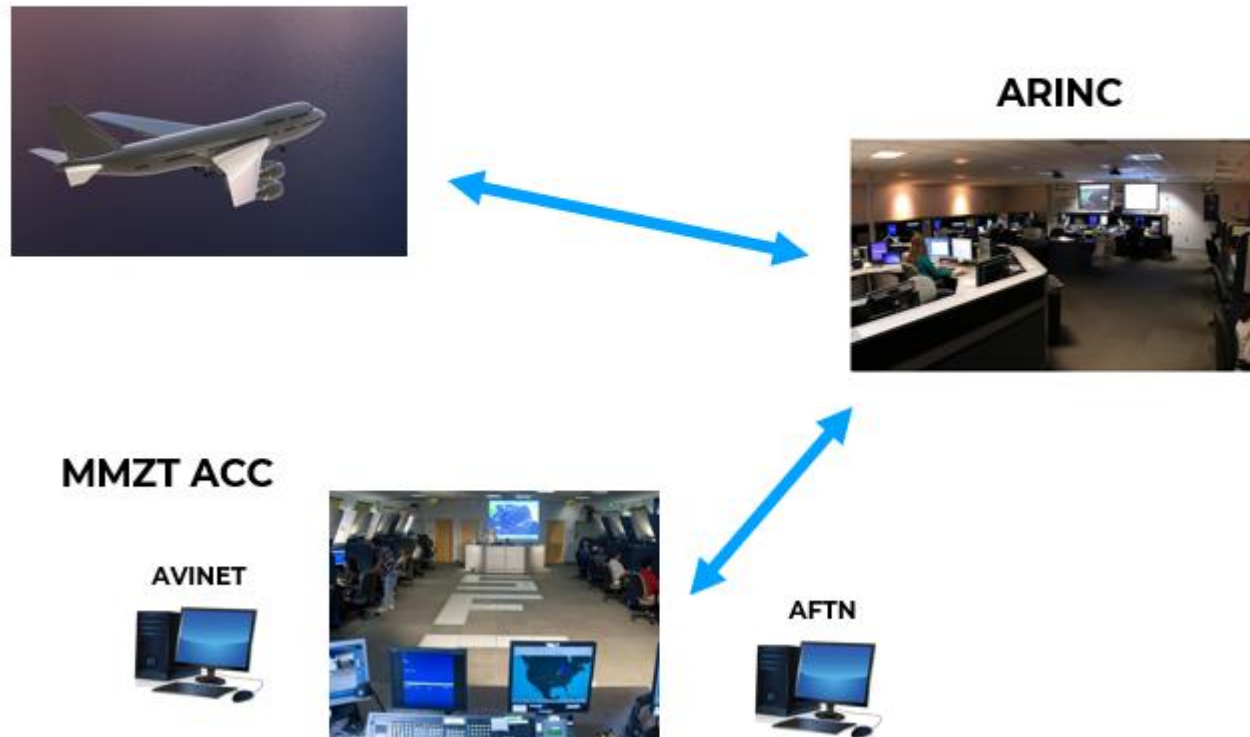
- **ARINC (Aeronautical Radio Inc.)**
- **ARTCC OAK**
- **MHTG Centro America (COCESNA)**
- **MMEX ACC**
- **MMID ACC**



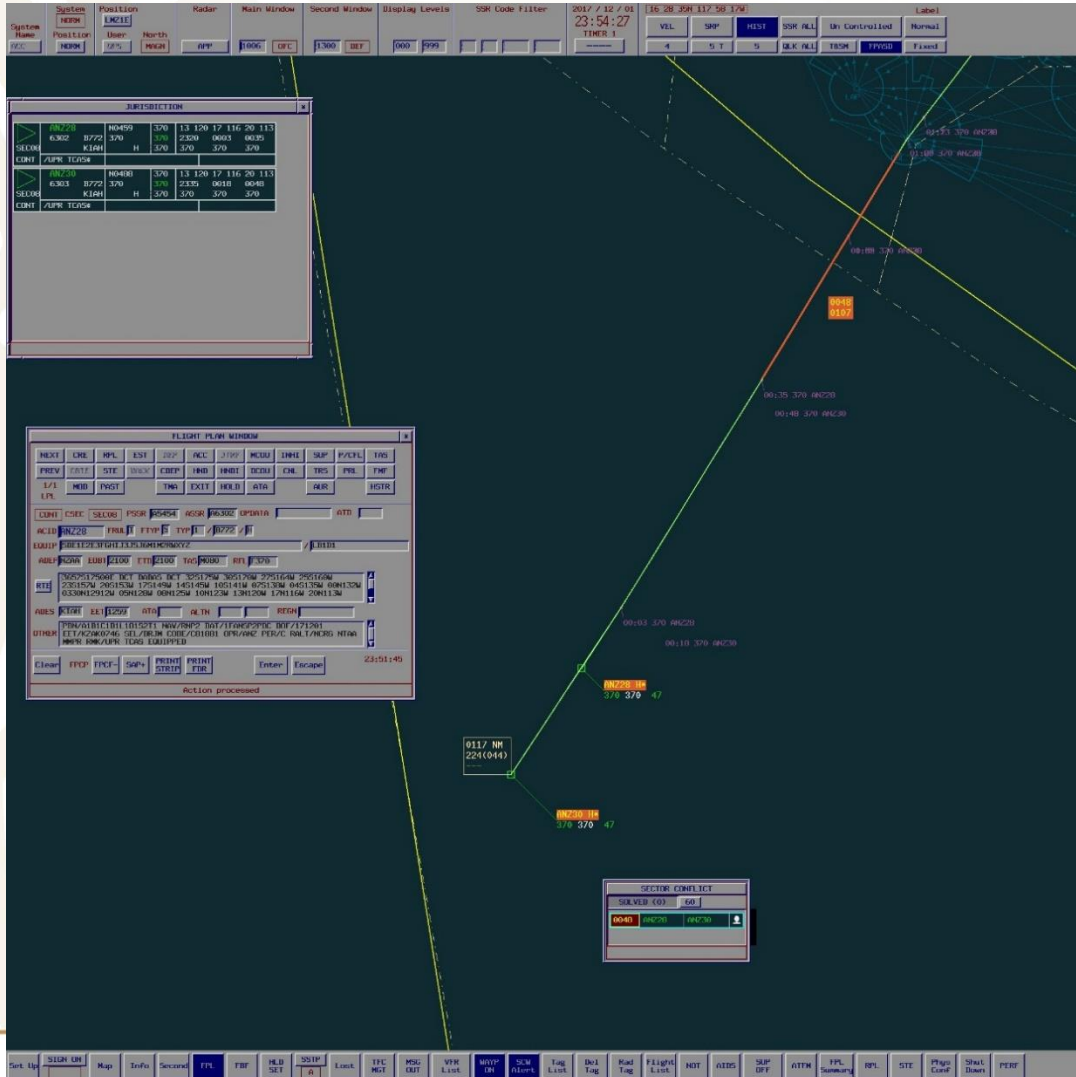
PHASE I.- CLASS G COMUNICATION

PILOT – CONTROLLER COMMUNICATION

Through ARINC interface, via AFTN network or telephone.

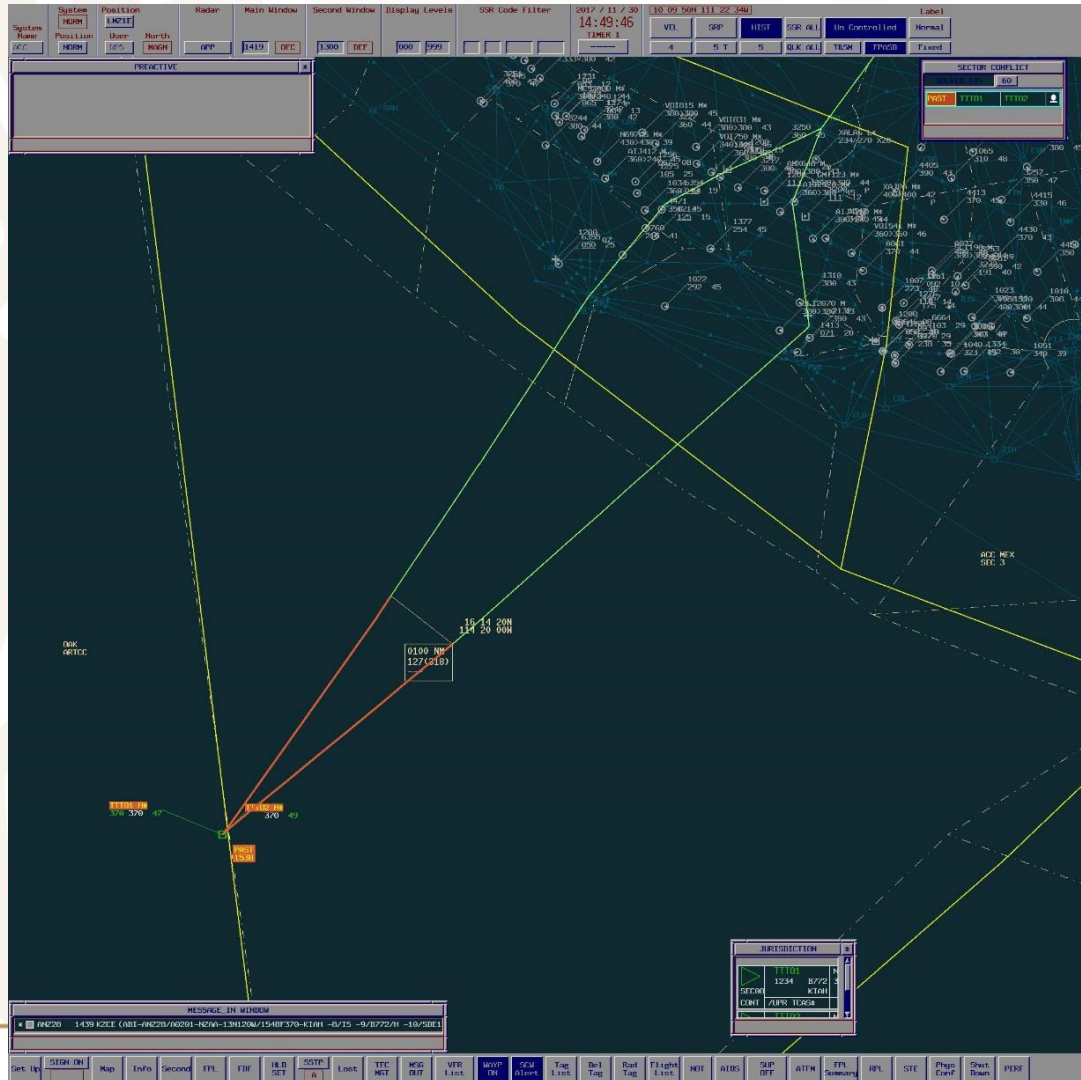


PHASE I.- CLASS G SURVEILLANCE



For this example, the System shows the alert where the longitudinal Separation is expected to be less than 10 minutes.

PHASE I.- CLASS G SURVEILLANCE



In this image, the System shows us the alert where the lateral separation is expected to be 100 NM or greater.

Which would allow the Controller to authorize the same level or, a crossing of levels in ascent or descent. The red line indicates that they are NOT laterally separated.

PHASE III.- CLASS A OPERATIONAL CONCEPT



COMMUNICATION

CPDLC

(CONTROLLER -PILOT DATALINK COMMUNICATIONS)

NAVIGATION

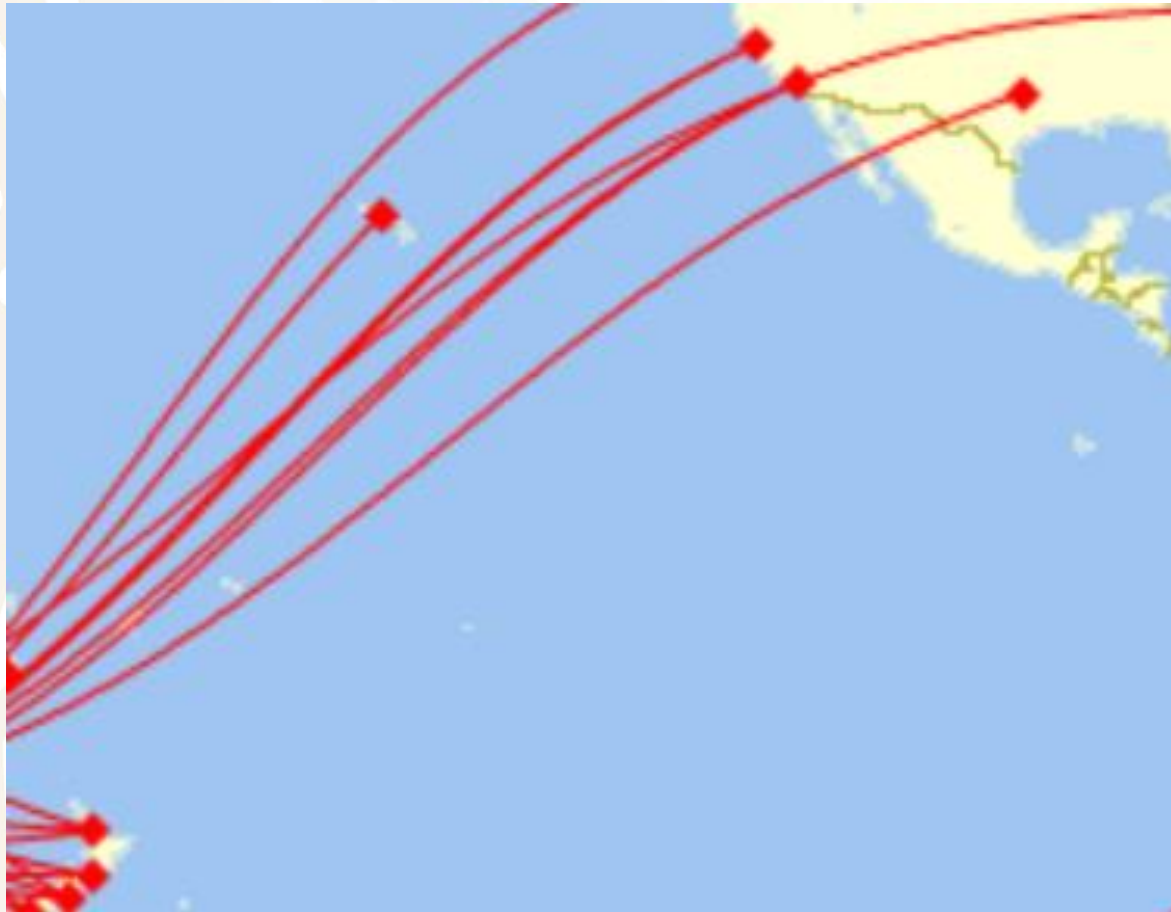
UPR (USER PREFERRED ROUTE)

PBN (RNAV 10)

SURVEILLANCE

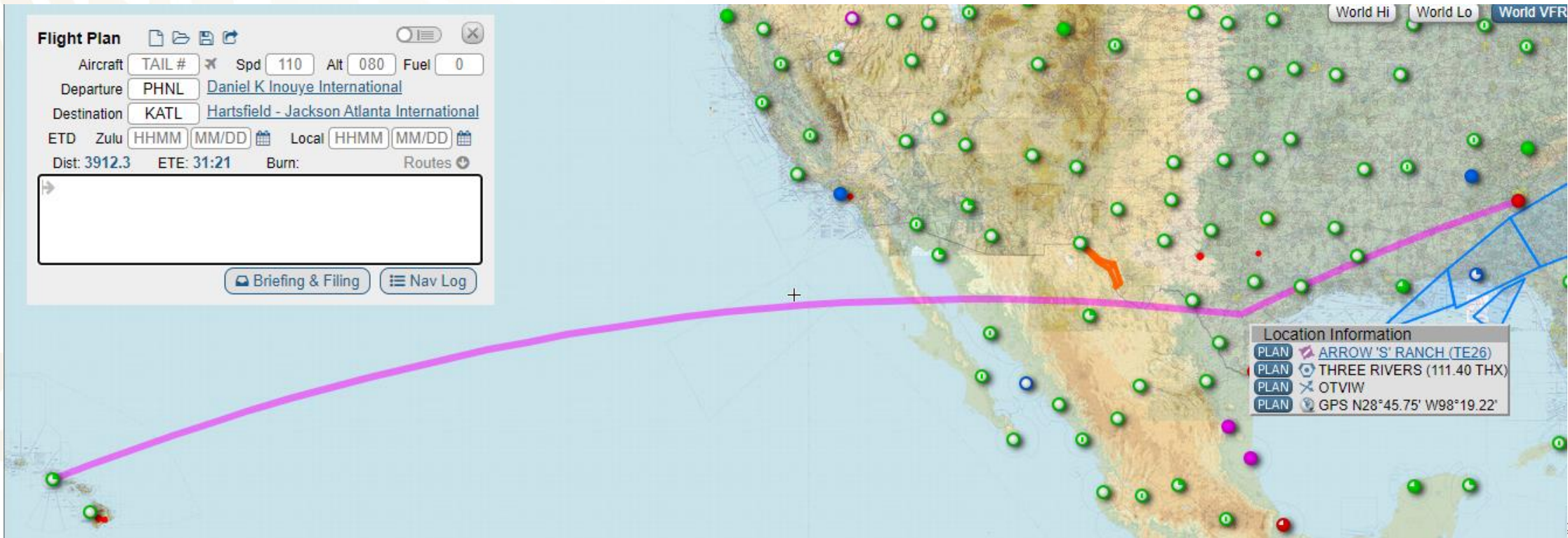
ADS-C (AUTOMATIC DEPENDENT SURVEILLANCE - CONTRACT)

PHASE III.- CLASS A AIM



NOVEMBER 30 2022 (CADENA CANSO MEETING)

DELTA AIRLINES STARTS TO LOOK FOR NEW ROUTES PHNL TO KATL



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PHNL-KATL

DELTA'S A350		
ACTUAL USED ROUTES		
	TIME	BURN
ROUTES GEN.0	7+30	94,827
1	7+43	95,959
2	7+59	99,488
3	8+17	103,482
PROPOSED SENEAM NEW ROUTES PHNL KATL		
1	7+30	92,490
2	7+30	92,320

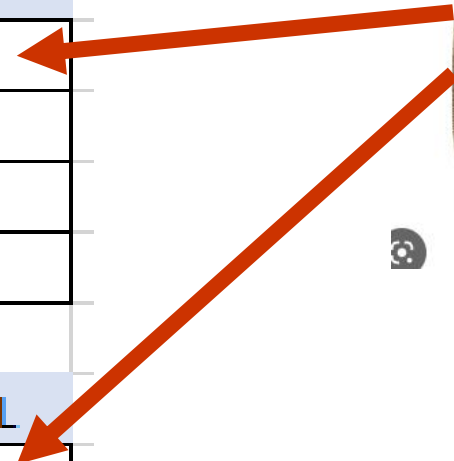


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MAZATLÁN OCEÁNICA MMFO



UP TO DATE DATA.....

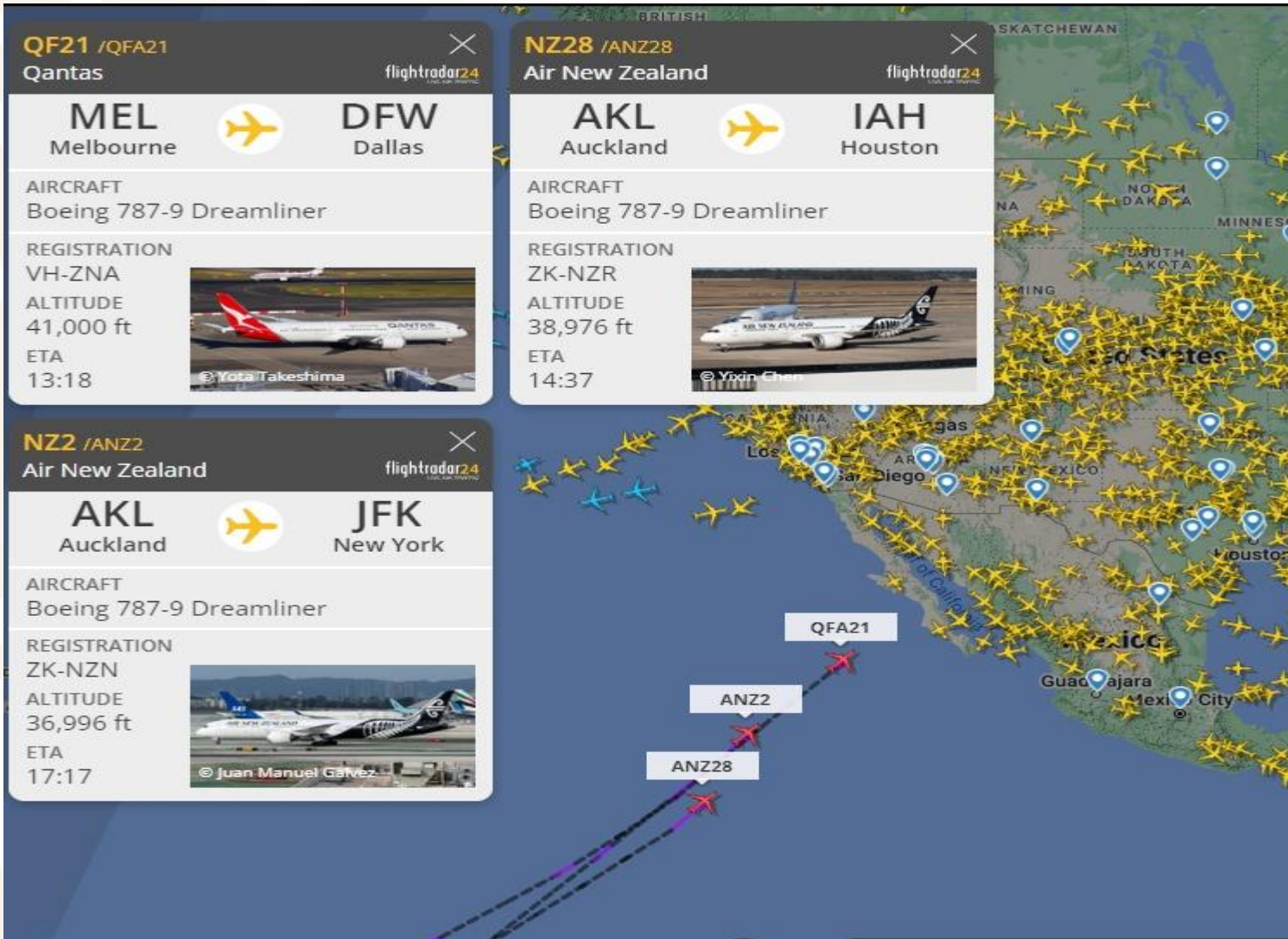
MMFO JANUARY 2022 TOTAL OPS 47

MMFO JANUARY 2023 TOTAL OPS 264

dom	01-ene-2023	0	0	0	1	0	2	2	1	0	0	0	1	0	1	0	1	1	0	0	0	0	11	
lun	02-ene-2023	0	0	1	0	0	1	1	1	0	0	0	1	1	0	0	0	1	1	2	0	1	0	11
mar	03-ene-2023	0	0	0	1	0	2	0	0	1	0	0	1	1	0	0	0	0	1	0	2	0	9	
mié	04-ene-2023	0	0	0	0	0	2	1	0	0	0	0	1	1	0	0	0	0	0	3	0	3	0	11
jue	05-ene-2023	0	0	0	0	1	2	1	0	0	0	1	0	0	1	0	0	1	1	2	0	1	1	12
vie	06-ene-2023	0	0	0	1	0	1	0	1	1	1	0	1	0	0	0	1	0	0	3	0	0	1	10
sáb	07-ene-2023	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	0	3	0	0	0	0	0	6
dom	08-ene-2023	0	0	0	1	0	2	1	1	0	1	0	0	0	1	0	1	1	0	0	1	1	0	10
lun	09-ene-2023	0	0	0	0	0	3	0	1	0	0	0	1	1	0	0	0	3	1	1	0	1	0	12
mar	10-ene-2023	1	0	0	1	1	1	1	0	0	1	2	0	0	1	0	0	0	0	2	3	1	0	15
mié	11-ene-2023	0	0	0	0	0	2	1	0	0	0	2	0	0	0	1	1	0	1	1	0	0	10	
jue	12-ene-2023	1	0	0	0	1	2	0	1	1	1	1	0	1	1	0	0	2	1	0	1	0	1	15
vie	13-ene-2023	0	0	2	0	0	2	1	1	1	1	0	0	1	0	0	0	0	0	1	1	1	0	12
sáb	14-ene-2023	0	0	0	0	0	1	2	0	0	0	0	0	2	0	0	1	1	2	3	0	0	0	12
dom	15-ene-2023	0	0	0	0	1	2	1	2	0	0	0	0	2	0	0	0	0	2	1	0	0	1	12
lun	16-ene-2023	0	0	0	0	0	2	1	1	0	0	0	0	1	0	0	0	2	1	1	0	0	0	9
mar	17-ene-2023	0	0	0	0	1	1	2	0	0	0	0	0	1	0	0	0	1	0	1	1	0	0	8
mié	18-ene-2023	1	0	0	0	0	0	1	0	0	0	1	0	0	1	0	1	0	0	1	1	0	0	7
jue	19-ene-2023	0	0	0	0	0	1	0	0	0	0	1	0	1	0	0	0	1	1	0	2	0	0	7
vie	20-ene-2023	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	4
sáb	21-ene-2023	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	1	1	0	1	0	0	0	7
dom	22-ene-2023	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	1	1	0	1	0	0	5
lun	23-ene-2023	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0	6
mar	24-ene-2023	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0	1	0	0	1	0	0	6
mié	25-ene-2023	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	1	0	0	1	5
jue	26-ene-2023	0	0	0	0	0	1	0	0	0	0	2	0	1	0	0	0	1	1	0	1	0	0	7
vie	27-ene-2023	0	0	0	0	0	2	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	5
sáb	28-ene-2023	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	3
dom	29-ene-2023	0	0	0	0	0	2	0	0	0	0	1	0	0	0	0	0	1	0	0	1	0	0	5
lun	30-ene-2023	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	6
mar	31-ene-2023	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	6
																								264

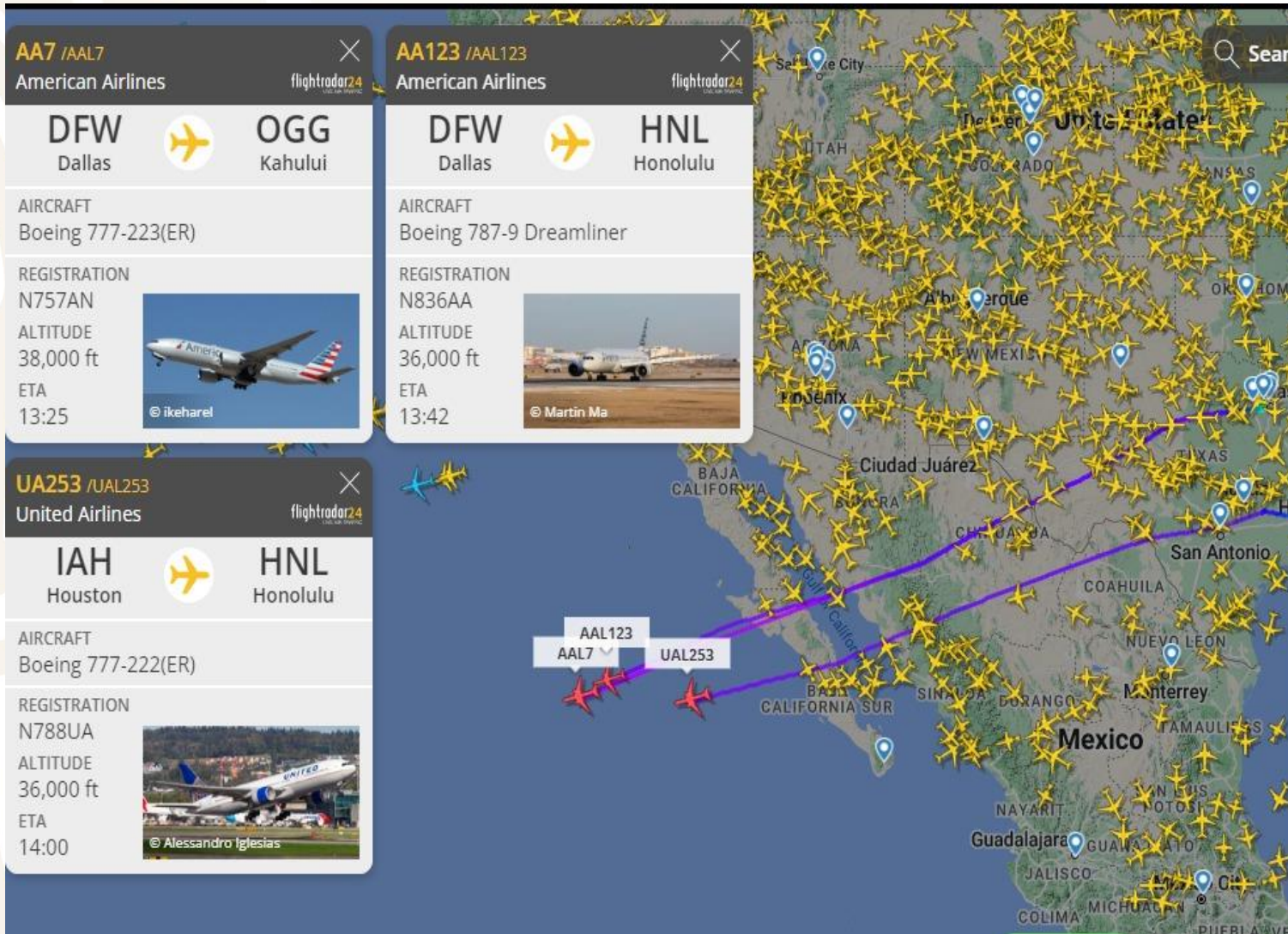
MAZATLÁN OCEÁNICA MMFO

JANUARY 16 2023 NORTH WEST BOUND



MAZATLÁN OCEÁNICA MMFO

JANUARY 2023 SOUTH EAST BOUND



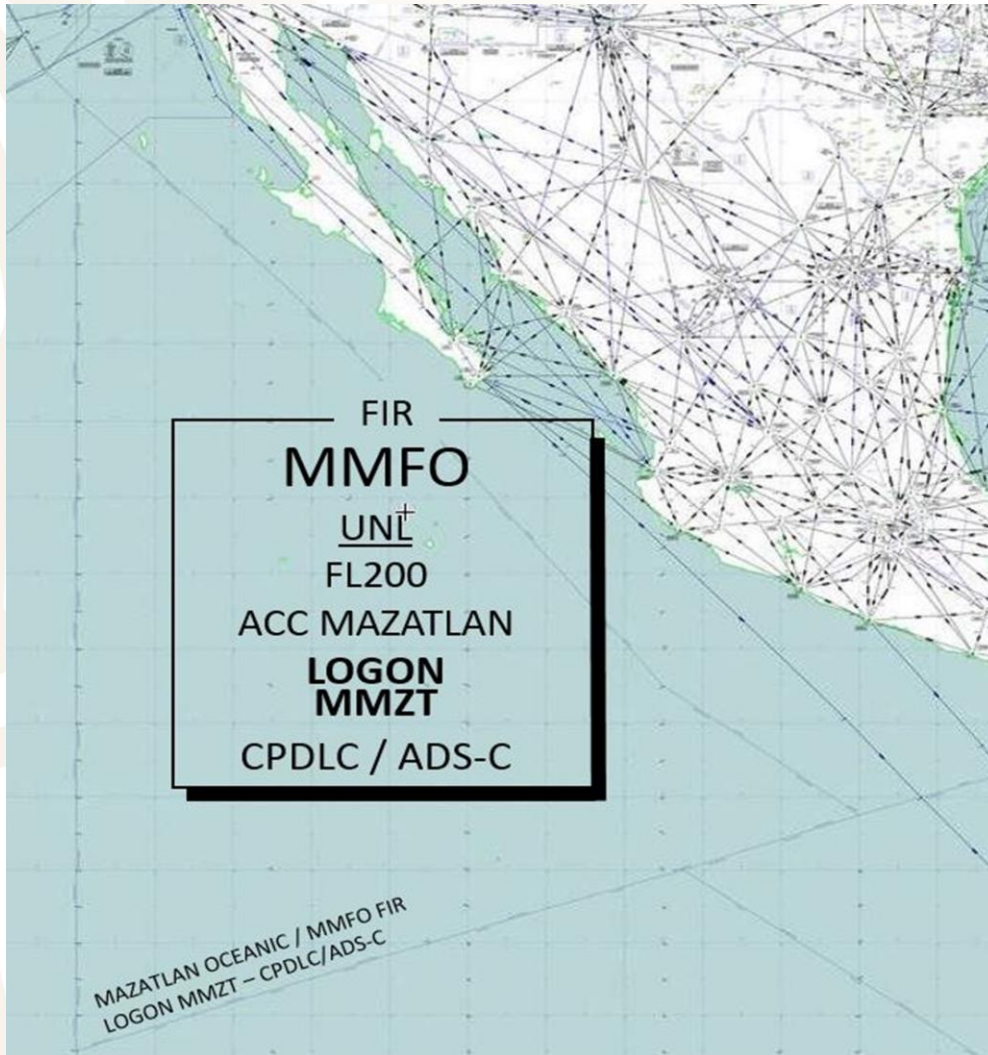
AA7 /AAL7 American Airlines
DFW Dallas → OGG Kahului
AIRCRAFT: Boeing 777-223(ER)
REGISTRATION: N757AN
ALTIMITUDE: 38,000 ft
ETA: 13:25

AA123 /AAL123 American Airlines
DFW Dallas → HNL Honolulu
AIRCRAFT: Boeing 787-9 Dreamliner
REGISTRATION: N836AA
ALTIMITUDE: 36,000 ft
ETA: 13:42

UA253 /UAL253 United Airlines
IAH Houston → HNL Honolulu
AIRCRAFT: Boeing 777-222(ER)
REGISTRATION: N788UA
ALTIMITUDE: 36,000 ft
ETA: 14:00

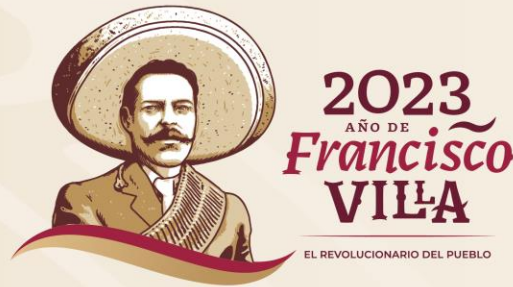
Map labels: AAL123, AAL7, UAL253

PHASE III.- CLASS A AIP



AIP/PIA
CPDLC / ADS-C

CLASS A AIR SPACE



THANK YOU

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