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INFORMATION PAPER

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Fourth NAM/CAR Air Navigation Implementation Working Group Meeting (ANI/WG/4)
Miami, United States, 21 – 24 August 2018

Agenda Item 3: Global and Regional Air Navigation Plans
3.1 Regional Electronic Air Navigation Plan (eANP) progress

FAA and SENEAM Implementation of Mazatlán Offload and Severe Weather Playbook Routes

(Presented by United States and Mexico)

EXECUTIVE SUMMARY

This paper presents information on the development and implementation of playbook routes between the United States' Federal Aviation Administration (FAA) and Mexico's *Servicios a la Navegación en el Espacio Aéreo Mexicano* (SENEAM) that allow aircraft to transition the northern portion of SENEAM airspace from Houston Air Route Traffic Control Center (ARTCC), Albuquerque ARTCC and Los Angeles ARTCC. In addition, the FAA and SENEAM developed offload routes from Los Angeles ARTCC that would offload aircraft around Mazatlán Area Control Center (ACC) airspace for arrivals to Mexico City, Monterrey and Cancun.

<i>Strategic Objectives:</i>	<ul style="list-style-type: none">• Safety• Air Navigation Capacity and Efficiency
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1. Introduction

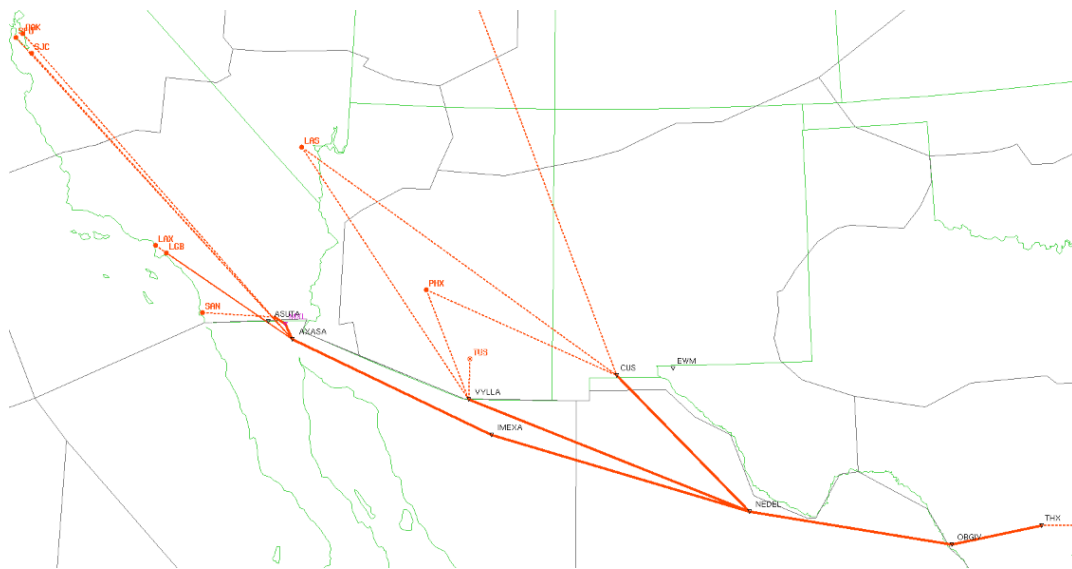
1.1 During severe weather events, it is often necessary to move large traffic flows around the constrained airspace in an orderly and efficient manner. The FAA has developed playbook routes that are pre-coordinated with all affected facilities and published for stakeholder awareness. These playbook routes can be implemented relatively quickly when necessary. In addition to domestic playbook routes, the FAA has developed playbook routes with NAV CANADA to allow routing aircraft into Canadian airspace when coordinated and approved.

1.2 Due to the success of playbook routes with NAV CANADA, the discussion began with SENEAM to determine if a similar process could be followed to develop playbook routes in the northern portion of SENEAM airspace to transition aircraft between Texas and Southern California. In addition, due to the high volume of southbound aircraft during the winter season, there was a request by Los Angeles ARTCC to determine if routes could be established to offload aircraft around Mazatlán ACC for aircraft transitioning Mazatlán airspace to other destinations in Mexico.

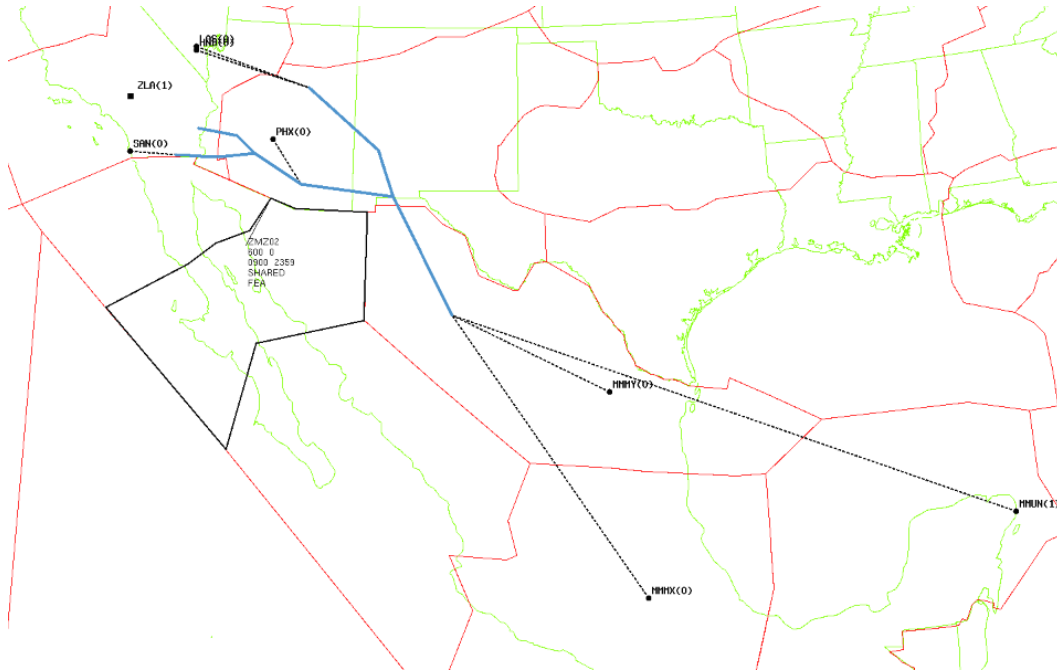
2. Discussion

2.1 Playbook routes allow the FAA to move large flows of traffic during severe weather events in a safe, orderly and efficient manner. Due to military airspace to the north and the Mexico boundary to the south, the airspace around El Paso, Texas, becomes very challenging to manage during thunderstorm season. The FAA initially created the Playbook Routes and gained support from SENEAM for flights through Mexico's airspace to help the FAA avoid convective weather issues. SENEAM agreed to become part of the FAA's playbook route team and the FAA proposed routes along the northern border of Mexico that would allow aircraft to bypass the constrained area and provide relief to the facilities impacted by convective weather. SENEAM was very receptive to this idea and worked with the FAA over the course of a year in developing, training and implementing east and westbound playbook routes.

2.2 The implementation of playbook routes with SENEAM began in the Spring of 2018 and the routes have been used when necessary due to convective weather in New Mexico and Texas. The initial use of the playbook routes has been limited to 5-6 aircraft per hour to allow facilities from both the FAA and SENEAM to become familiar with the new procedures. We anticipate working with SENEAM to increase the number of aircraft per hour as the playbook routes are used more often and the controllers become more comfortable with the new traffic flow. The figure below depicts the Mexico Playbook OBGY WEST 1,2,3 (LEV) & AMUDI EAST 2, CUS EAST, VYLLA EAST (LVL EAST 1).



2.3 Due to the success of discussions related to playbook routes, Los Angeles ARTCC requested that SENEAM consider routes from Los Angeles ARTCC that would offload aircraft around Mazatlán ACC thereby relieving congestion during high volume timeframes. Working with Mazatlán ACC, Monterrey ACC, Los Angeles ARTCC and Albuquerque ARTCC, routes were developed for aircraft landing in Mexico City, Monterrey and Cancun airports that would normally traverse Mazatlán ACC. The offload routes allow Los Angeles ARTCC to tactically reroute aircraft arriving in the three cities in Mexico and reduces delay and volume in constrained airspace. While originally intended to be used only during high volume timeframes, the offload routes have proven very successful and have been used when there is a possibility of departure delay for aircraft departing Los Angeles ARTCC. The figure below depicts the Snowbird West Mazatlán Bypass route.



2.4 The use of the playbook routes and the offload routes occurs only after coordination and collaboration between SENEAM’s Sistema de Monitoreo, Administración y Regulación del Tránsito Aéreo (SMART) unit, FAA’s Air Traffic Control System Command Center (ATCSCC) and the affected SENEAM and FAA field facilities. After all parties agree to the implementation of the routes and any applicable restrictions, the routes are issued to the aircraft. Flight operators were involved in the development of the routes to ensure stakeholder concerns were considered and mitigated where necessary.

2.5 The FAA greatly appreciates the collaboration and professionalism of SENEAM in the development and implementation of these routes. In a relatively quick period of time, these routes went from concept to reality and have proven to be very helpful in the management of traffic along the southern United States border. This example of cross border Air Traffic Flow Management (ATFM) demonstrates how regional partners can come together to solve traffic flow issues.

3. Conclusion

3.1 The meeting is invited to note the information contained in this paper.