

26 September 2016
F500-L16-059

Lic. Alfonso Sarabia de la Garza
Director General
Aeropuertos y Servicios Auxiliares (ASA)
Avenida 602, Número 161
15620 México, D.F.
México

**Subject: Technical Letter: Summary of Work During the Period 1 July 2016
through 30 September 2016**

Dear Lic. Sarabia:

This letter respectfully submits to your attention a summary of the most significant MITRE project activities conducted during the period 1 July 2016 through 30 September 2016.

Reports

At the outset, before proceeding with a full description of activities, please find below a list of the documents that we are including along with this Technical Letter, some of which have been delivered to various parties throughout the concluding quarter.

1. Lic. Yuriria Mascott, Undersecretary of Transportation, requested MITRE, on a priority basis, to perform an analysis that resulted in Technical Letter: Assessment of Centro de Gestión de Residuos Sólidos en el Bordo Poniente. See MITRE document F500-L16-040, dated 29 July 2016.
2. NAICM Category III Instrument Landing System Acquisition Proposal and Initial Runway Visual Range Data Analysis. See MITRE document F500-L16-041, dated 12 August 2016.
3. Nuevo Aeropuerto Internacional de la Ciudad de México Preliminary Airspace Redesign - Informal Working Notes: NAICM Area Navigation and Conventional Standard Terminal Arrival Routes. See MITRE document F500-L16-044, dated 7 September 2016.
4. Toluca International Airport Preliminary Airspace Redesign - Informal Working Notes: Toluca Area Navigation and Conventional Standard Terminal Arrival Routes. See MITRE document F500-L16-045, dated 7 September 2016.
5. Nuevo Aeropuerto Internacional de la Ciudad de México Preliminary Airspace Redesign - Informal Working Notes: NAICM Area Navigation and Conventional

Standard Instrument Departures. See MITRE document F500-L16-049, dated 7 September 2016.

6. Toluca International Airport Preliminary Airspace Redesign - Informal Working Notes: Toluca Area Navigation Standard Instrument Departure Routes. See MITRE document F500-L16-050, dated 7 September 2016.
7. Cancún Airport Preliminary Airspace Redesign - Informal Working Notes: Cancún and Cozumel Routes. See MITRE document F500-L16-051, dated 7 September 2016.
8. Enclosure No. 1 to this Technical Letter (F500-L16-059): Cancún Airport - Conventional Departure Procedures, dated 26 September 2016.
9. Enclosure No. 2 to this Technical Letter (F500-L16-059): Cancún Airport Human-In-The-Loop Simulations - Initial Laboratory Configuration Technical Requirements, dated 26 September 2016.
10. Enclosure No. 3 to this Technical Letter (F500-L16-059): Mexico Area Control Center Enroute and Mexico City Terminal Maneuvering Area Airspace Redesign - Baseline Metrics Sector Analysis, dated 26 September 2016.
11. Enclosure No. 4 to this Technical Letter (F500-L16-059): Photogrammetric, Satellite-Based Survey of the Toluca Airport and Its Surroundings - Final Report, dated 26 September 2016.
12. Enclosure No. 5 to this Technical Letter (F500-L16-059): Nuevo Aeropuerto Internacional de la Ciudad de México - Key Airspace and Procedure Design-Related Activities (Updated), dated 26 September 2016.
13. Enclosure No. 6 to this Technical Letter (F500-L16-059): Dual Independent Test-Bed Operations at Cancún - Key Airspace and Procedure Design-Related Activities (Updated), dated 26 September 2016.

The documents designated as Enclosures, are described below:

- **Enclosure No. 1: Cancún Airport - Conventional Departure Procedures.** This report describes MITRE's development of preliminary conventional Standard Instrument Departure (SID) procedures to support dual independent operations at Cancún Airport.

It is important to note that these procedures are preliminary, as they are intended to support upcoming Human-In-The-Loop (HITL) simulation activities to evaluate the airspace design for the Cancún/Cozumel Terminal Maneuvering Area (TMA) in support of dual independent test-bed operations. The procedures must also be validated by Servicios a la Navegación en el Espacio Aéreo Mexicano (SENEAM).

- **Enclosure No. 2: Cancún Airport Human-In-The-Loop Simulations - Initial Laboratory Configuration Technical Requirements.** MITRE has been working with SENEAM on planning matters in preparation for the above-mentioned upcoming HITL simulations for Cancún Airport. This document provides a description of the technical capabilities and equipment that MITRE plans to use during the upcoming HITL simulations.
- **Enclosure No. 3: Mexico Area Control Center Enroute and Mexico City Terminal Maneuvering Area Airspace Redesign - Baseline Metrics Sector Analysis.** This document describes MITRE's baseline metrics sector analysis of both the Mexico Area Control Center (ACC) enroute and the Mexico City TMA airspace environments.
- **Enclosure No. 4: Photogrammetric, Satellite-Based Survey of the Toluca Airport and Its Surroundings - Final Report.** MITRE is responsible for the procurement of a satellite-based survey of Toluca Airport and its surroundings to support its own aeronautical work. MITRE is pleased to report that the survey has been completed. This enclosure provides the final documentation regarding the survey work.

MITRE wishes to thank ASA for its support and assistance in facilitating the work.

- **Enclosure No. 5: Nuevo Aeropuerto Internacional de la Ciudad de México - Key Airspace and Procedure Design-Related Activities (Updated).** The purpose of this document is to provide general information to SENEAM on some of the key activities and milestones planned from September 2016 through the early fall of 2017, pertaining to the redesign of the Mexico City TMA to support triple independent operations at Nuevo Aeropuerto Internacional de la Ciudad de México (NAICM).
- **Enclosure No. 6: Dual Independent Test-Bed Operations at Cancún - Key Airspace and Procedure Design-Related Activities (Updated).** The purpose of this document is to provide general information to SENEAM on some of the key activities and milestones planned from September 2016 through early 2018, pertaining to the redesign of the Cancún/Cozumel TMA to support dual independent test-bed operations at Cancún.

Activities

The following list describes activities conducted by MITRE during this reporting period:

- Per request, on a priority basis, of the Undersecretary of Transportation, Lic. Yuriria Mascott, and CTA Miguel Peláez, Director-General of the Dirección General de Aeronáutica Civil (DGAC), MITRE created a team of experts to conduct an assessment of the potential impact of a proposed facility named *Centro de Gestión de Residuos Sólidos en el Bordo Poniente* to be constructed near NAICM. The facility would include both solid waste management and

bio-digester operations. The proposed facility would be located in an area immediately south of the western runways of NAICM.

The team worked for several weeks. MITRE's assessment of the facility raised important operational and safety concerns. MITRE's advice, if a decision has to be made at this point in time, is against development of the facility. MITRE's document describing the assessment is being sent along with this Technical Letter as a reference (see MITRE document F500-L16-040, dated 29 July 2016).

As a result of MITRE's assessment, Mexican officials examined alternative locations for the above-mentioned facility. In mid-September, MITRE received through CTA Peláez information on alternative locations for the facility. The MITRE team is in the process of reviewing that information and will be conducting another assessment of the potential impact of the facility on operations at NAICM. It is important to mention that the alternative locations for the facility should also be assessed considering operations at current Mexico City International Airport (AICM) since the facility may be constructed prior to the closure of AICM. This work, which the MITRE team felt was an intelligent decision on part of the Undersecretary and CTA Peláez to request, was performed out of scope. However, as this is becoming a large piece of work, MITRE considers it a part of Task 2, Sub-Task 1, which exists for examining proposed ideas by stakeholders that are related to NAICM.

- As per request of Ing. Luis Sánchez Estrada, Subdirector de Normatividad y Procesos Aeroportuarios, Grupo Aeroportuario de la Ciudad de México (GACM), MITRE created a team to review a document titled, *Technical Annex: Procurement of A New Mobile Instrument Landing System (ILS) CAT III Portable-Mobile-Semi-Deployable for the New International Mexico City Airport*. That document included technical specifications and other requirements for the acquisition and installation of a Category (CAT) III capable ILS to conduct flight inspections and eventually support future NAICM operations.

Technical specifications, acquisition, and installation of ILS equipment are all areas outside MITRE's area of principal expertise. Therefore, MITRE was not able to review or provide feedback on some of the technical specifications contained in the above-mentioned acquisition document. Nevertheless, the MITRE team reviewed the acquisition document and provided its opinion, where appropriate, on matters pertaining to the unique operational situation at NAICM. MITRE advised that SENEAM, as the expert in navigational system acquisition matters in Mexico, should review and complement MITRE's recommendations, as necessary.

It is important that an appropriate ILS system be obtained as soon as possible so that pre-runway construction flight inspection activities and other testing of the ILS equipment can be conducted at the NAICM greenfield site to determine with the greatest possible confidence if the ILS equipment can meet operational signal reception requirements and to examine other technical matters for CAT I, II, and III ILS procedures.

Additionally, information on MITRE's initial analysis of visibility data obtained through a Runway Visual Range (RVR) system located at the NAICM site was provided. This initial analysis of RVR data is intended to provide authorities with a better understanding of the need for CAT II and/or III ILS approaches at NAICM.

MITRE's document describing the above-mentioned topics is being sent along with this Technical Letter as a reference (see MITRE document F500-L16-041, dated 12 August 2016).

- A large team of MITRE engineers visited Mexico City on 1 and 2 August 2016 to assist SENEAM in the redesign of the NAICM airspace and to discuss other important matters. The primary objective of the trip to Mexico City was to conduct an intense airspace design workshop in order to solidify the NAICM airspace design and coordinate clear next steps for SENEAM and MITRE.

Important discussions on other key project-related matters, such as potential interactions with satellite airports and Fuerza Aérea Mexicana (FAM) Special Use Airspace (SUA), the analysis of Mexico's enroute airspace, as well as CAT II/III ILS approach and radar coverage issues were also conducted. The visit was extremely successful and its objectives were met.

- A large team of MITRE engineers visited Cancún on 3 and 4 August 2016 to assist SENEAM in the redesign of the Cancún airspace to support dual independent test-bed operations and to discuss other important matters. The primary objective of the trip to Cancún was to conduct an intense airspace design workshop in order to solidify the Cancún airspace design and coordinate clear next steps for SENEAM and MITRE. Important discussions on other key project-related matters, such as upcoming HITL simulations were also conducted. The visit was extremely successful and its objectives were met.
- Following MITRE's above-mentioned visits to Mexico City and Cancún, the MITRE team spent a significant amount of time preparing several documents that provide a reflection of informal airspace design-related working notes discussed during the workshop meetings between SENEAM and MITRE. The documents are intended to provide route definition information to SENEAM (e.g., waypoint names and latitude/longitude coordinates) to allow SENEAM to conduct detailed procedure design and airspace work.

The following documents were provided to SENEAM, and are being sent along with this Technical Letter as a reference:

- A 43-page document titled, *Nuevo Aeropuerto Internacional de la Ciudad de México Preliminary Airspace Redesign - Informal Working Notes: NAICM Area Navigation and Conventional Standard Terminal Arrival Routes*. See MITRE document F500-L16-044, dated 7 September 2016.
- A 26-page document titled, *Toluca International Airport Preliminary Airspace Redesign - Informal Working Notes: Toluca Area Navigation and*

Conventional Standard Terminal Arrival Routes. See MITRE document F500-L16-045, dated 7 September 2016.

- A 118-page document titled, *Nuevo Aeropuerto Internacional de la Ciudad de México Preliminary Airspace Redesign - Informal Working Notes: NAICM Area Navigation and Conventional Standard Instrument Departures*. See MITRE document F500-L16-049, dated 7 September 2016.
- A 24-page document titled, *Toluca International Airport Preliminary Airspace Redesign - Informal Working Notes: Toluca Area Navigation Standard Instrument Departure Routes*. See MITRE document F500-L16-050, dated 7 September 2016.
- A 178-page document titled, *Cancún Airport Preliminary Airspace Redesign - Informal Working Notes: Cancún and Cozumel Routes*. See MITRE document F500-L16-051, dated 7 September 2016.
- During the quarter now ending, the MITRE team examined SENEAM-provided radar coverage information pertaining to the development of the Minimum Vectoring Altitude Charts (MVAC) for NAICM and Toluca Airport. It is important to mention that the radar coverage charts indicate that certain sector altitudes may have to be raised. Additionally, MITRE identified possible radar coverage issues and gaps in critical operational areas. These matters were discussed with SENEAM during the above-mentioned 1 and 2 August 2016 trip to Mexico City. SENEAM is currently investigating this matter further. The MITRE team has also started examining SENEAM-provided radio coverage information.
- Throughout the quarter now ending, MITRE's procedure design team spent a significant amount of time developing conventional SIDs to support dual independent test-bed operations at Cancún Airport. The MITRE team determined that the procedures are feasible.

With this delivery of MITRE's conventional SID design work, MITRE has now completed all required instrument procedure work to support dual independent test-bed operations at Cancún. Refer to Enclosure 1 of this Technical Letter for details.

- During the quarter now ending, the MITRE Cancún HITL team worked on a variety of tasks related to preparing for the upcoming HITL (expected to take place during the first quarter of 2017). The team's primary focus was on preparing the technical requirements document which provides a description of the technical capabilities and equipment that will be used to perform the upcoming HITL. Refer to Enclosure 2 of this Technical Letter for details. As part of developing this document, the team had to formalize a number of plans for the HITL, establish which positions will be supported for experimentation, and analyze existing laboratory hardware to determine where gaps may exist.

The MITRE HITL team also worked on visually inspecting and validating the Cancún Air Traffic Control (ATC) site adaptation information provided by

SENEAM.] This process included converting that adaptation information into MITRE's internal adaptation formats, testing it with MITRE's software, and also visualizing the adaptation information to ensure that there were no unexpected problems.

[Another task that the MITRE HITL team worked on this quarter was the preparation of simulation control files, including the start of the traffic scenarios for the HITL, and creating adaptation datasets merging the supplied Mérida adaptation with current navigation datasets.] The process of preparing the simulation control files involves identifying which laboratory computers and which applications will be used, and assigning those applications to run on specific computers.

[Additionally, the MITRE HITL team began converting the supplied Coordinated Flight Plan (CPL) data into MITRE's internal formats for use in the HITL.] This involved creating some new software to convert the fields in the CPL messages and to validate the fields for use with MITRE software.

Lastly, the software team focused on developing internal requirements, system architecture plans, a development timeline, as well as other minor enhancements to the simulation infrastructure that will be required to support the upcoming HITL.

- During the quarter now ending, MITRE's enroute airspace design team spent a significant amount of time conducting a baseline analysis of the current Mexico ACC enroute structure. A baseline analysis of the current Mexico City TMA was also conducted to assist in the overall design of the new Mexico City TMA to support NAICM.

The objective of the analysis was to create a baseline of metrics for later comparative analysis, and to identify issues that should be considered during a redesign of the Mexico ACC enroute and new Mexico City TMA airspace. Refer to Enclosure 3 of this Technical Letter for details.

- The MITRE team conducted a thorough review (i.e., survey data, imagery, final report) of the satellite-based survey of the Toluca Airport and its surroundings. As previously mentioned, the survey is now considered complete and ready for use by MITRE in conducting its Toluca-related aeronautical work. Refer to Enclosure 4 of this Technical Letter for details on the survey work.
- During MITRE's above-mentioned visit to Cancún, CTA Martín García of SENEAM requested that MITRE provide updated information on NAICM and Cancún upcoming activities and milestones to assist SENEAM with internal planning matters. Therefore, the MITRE team prepared two documents that listed the updated NAICM and Cancún upcoming activities and milestones. Refer to Enclosures 5 and 6 of this Technical Letter for details.
- On 22 September 2016, officials from Aeroméxico and Interjet visited MITRE for a full day of detailed presentations, demonstrations, and discussions regarding MITRE's NAICM-related work. The visit by the airline officials was critical in order to ensure that they have a comprehensive understanding of the important

aeronautical and operational matters pertaining to NAICM. As a result, there is now a full understanding on a broad variety of matters between MITRE and the two largest airlines of Mexico on key operational matters, requirements, and expectations.

Prior to the above-mentioned visit, the MITRE team prepared several highly detailed technical briefings and demonstrations covering its NAICM work. This required an extensive effort and preparation by the MITRE team.

The following is a listing of the briefings and demonstrations provided by MITRE to the airline officials during the visit:

- MITRE and its Work
- The NAICM Project: Description and Status
- Visit to the Air Traffic Management Laboratory: Flight Demonstrations
- Independent Operations: Important Airspace and ATC Considerations
- NAICM: Overview of the SENEAM-MITRE Airspace Design
- NAICM: Overview of Independent Approach and Departure Procedures
- Regulatory Modernization to Support the Operation of NAICM
- NAICM Master Plan Matters

The visit was very successful and the feedback provided by the airline officials was extremely valuable.

- Following ASA's written request to stop work on a second runway for Toluca in 2015, during the 20 November 2015 visit to MITRE by Lic. Mascott and other officials, the topic of the second parallel runway at Toluca Airport was discussed. MITRE expressed its opinion to the officials that Toluca should be planned and protected for long-term growth, even if a second runway is not needed in the near future, and that to do so it is critical to ensure that operations at Toluca, both current and future, do not create capacity-limiting effects on operations at NAICM due to airspace conflicts.

As a result, the officials present in the meeting, including Lic. Mascott, Ing. Roberto Kobeh, and yourself, agreed that a second parallel runway at Toluca should be considered in MITRE's work. However, MITRE has not received ASA's revocation of the stop-work order. As mentioned in MITRE's January 2016, March 2016, and July 2016 Technical Letters to ASA, a **formal written authorization from ASA that re-instates MITRE's analysis of a second parallel runway at Toluca is required. The entire Toluca work is now delayed (both runways need to be analyzed simultaneously) and this is already starting to impact other NAICM-related airspace and procedure design work.**

Additionally, as mentioned in MITRE's three previous quarterly Technical Letters to ASA, **MITRE requires feedback from aviation authorities on the preferred**

location of the second parallel runway for Toluca for analysis by MITRE. However, and this is important, as runway spacing standards keep changing, this decision should be made in coordination with MITRE.

Finally, MITRE mentioned in its last quarterly Technical Letter that if the first of the two requests mentioned above were received by 15 July 2016, MITRE would be able to avoid further delays by working harder. Following that date, however, the team reserved to complete that endeavor would need to be dispersed. Therefore, at this time, part of the Toluca team has been indeed reassigned to work on other tasks. No further feedback from ASA has been received.

- Under Task 8 of the ASA-MITRE contract, MITRE is to assist aviation authorities in the examination of problems relating to airport expandability in Mexico so that, in the process, they learn how to reexamine in the future modifications concerning NAICM airside matters. Specialized software will be used and specialized methodologies will be transferred so that Mexican engineers and controllers learn about MITRE's way of doing things. This task commenced in 2015 with the preliminary selection by the Mexican authorities of the airport to be studied. Following the selection of the final airport to be studied, an AWOS is to be installed by SCT, if needed. A satellite-based photogrammetric survey (for which MITRE is responsible) is to be ordered.

This task was discussed with Lic. Mascott and other officials, including CTA Peláez, during their 20 November 2015 visit to MITRE. During that visit, the following preliminary airports were selected:

- Guadalajara Airport
- Puerto Vallarta Airport
- Tijuana (expansion and/or new airport site examination)

MITRE received a letter from ASA (see Oficio ASA/C/03236/2016, dated 13 May 2016), which offered options for MITRE's consideration on how to address the selection of an airport. Based on the information and considerations described in that letter, MITRE agreed to discuss the matter directly with the DGAC.

Therefore, MITRE contacted CTA Peláez via e-mail earlier this month of September 2016 regarding the selection of an airport for MITRE to analyze. CTA Peláez was of the opinion that the order of priority should be as follows:

- Tijuana (both examining how to maximize the capacity of the current airport, as well as identifying a potential location for a new airport)
- Guadalajara Airport
- Puerto Vallarta Airport

As a result, MITRE's next step is to start examining the potential scope of ideas and options for further discussion and consideration by the DGAC. This will

allow for a formal decision to be made regarding the scope and content of MITRE's Task 8-related work.

- Contractual Matters
 - **Hidalgo-Related Work** – Per ASA information, MITRE's Hidalgo-related work was stopped due to FAM's interest in relocating its fixed-wing non-transport aircraft operations to Querétaro Airport. However, MITRE informed through Technical Letter F500-L15-007, dated 12 January 2015, that FAM operations at Querétaro Airport, along with the establishment of SUAs to support those operations, must be thoroughly examined to ensure that they are feasible and, more importantly, that they do not interfere with future operations at NAICM. Such investigation must be conducted in close coordination with FAM and SENEAM officials.

Since this work is not contained in MITRE's current contract, a modification of the contract will be required. MITRE received a letter from ASA (see Oficio ASA/C/121/2016, dated 23 March 2016) that contained ASA's proposal to amend the contract by replacing remaining Hidalgo-related work with work pertaining to the examination of relocating FAM fixed-wing non-transport operations to Querétaro Airport.

In May 2016, MITRE submitted a letter to ASA suggesting that detailed discussions with officials from FAM on the specific work to be conducted for Querétaro Airport be conducted in the autumn of 2016 timeframe, once the NAICM airspace design reaches an appropriate stage (see MITRE document F500-L16-034, dated 13 May 2016). Following that stage it is going to be best to formally modify the contract. Therefore, it is MITRE's plan to reconvene FAM-related coordination matters during the upcoming quarter.

- **Assignment to GACM** – As discussed in MITRE's previous quarterly Technical Letter, in mid-June 2016 ASA requested consent from MITRE to assign the ASA-MITRE contract to GACM. Since then, MITRE managers and contract officials have spent a significant amount of time dealing with this matter in order to ensure the assignment to GACM is conducted in an appropriate manner for all parties, including MITRE.

On 21 July 2016, MITRE's contracts department sent to ASA an e-mail with a minimum number of requirements through which MITRE would grant authorization to ASA to assign the ASA-MITRE contract to GACM.

In late August 2016, MITRE inquired via e-mail about the status of the requirements, as MITRE's submittal of its next quarterly invoice and deliverable package (i.e., late September 2016, which this document transmits) was rapidly approaching. In that e-mail, MITRE cautioned that the *oficio* requesting MITRE's consent to the assignment had to be received at the very latest by 12 September 2016 to provide MITRE sufficient time to complete the assignment process before the September deliverables. This is due to internal and external processes that MITRE must legally

follow. MITRE also requested repeatedly that the *oficio* be sent to MITRE as a draft (“borrador”), without a signature, so that MITRE’s contracts and legal departments could review it and ensure there were no issues as the previous time.

Notwithstanding, the night of 13 September 2016 (in practice, 14 September) MITRE received via e-mail a scanned signed *oficio* requesting the assignment. As mentioned above, receiving the *oficio* past 12 September 2016 would not allow sufficient time to complete the assignment process. Additionally, the *oficio* did not comply with the requirements set by MITRE back in July.

As a result, the assignment matter has been transferred to higher levels within MITRE who are checking about MITRE’s next steps. MITRE will inform ASA as soon as possible with its opinion on how best to proceed to resolve this matter without any more problems.

Note that due to the above-mentioned assignment, the Hidalgo and Toluca contractual matters may need to be addressed by GACM, unless before the assignment process ends ASA reinstates the second-runway process in MITRE’s Toluca and airspace redesign work.

Please do not hesitate to contact me if you need any clarification or assistance.

Sincerely,



Ing. Robert W. Kleinhans
Project Technical Coordinator

Included with this letter:

Seven Technical Documents and Six Enclosures

cc: Ing. Jorge Nevárez, ASA
Dr. Bernardo Lisker, MITRE

This three-page return receipt (*acuse de recibo*) is to be scanned (all pages) and e-mailed to Ing. R. Kleinhans

1 OCTOBER 2016 TECHNICAL LETTER DISTRIBUTION

MITRE requests that the documents enclosed with this Technical Letter are distributed as follows.

1. Technical Letter: Assessment of Centro de Gestión de Residuos Sólidos en el Bordo Poniente. See MITRE document F500-L16-040, dated 29 July 2016.
 - ASA: 5 copies
 - GACM: 5 copies
 - SENEAM: 5 copies
 - DGAC: 5 copies
 - SCT: 5 copies

2. NAICM Category III Instrument Landing System Acquisition Proposal and Initial Runway Visual Range Data Analysis. See MITRE document F500-L16-041, dated 12 August 2016.
 - ASA: 5 copies
 - GACM: 5 copies
 - SENEAM: 5 copies
 - DGAC: 5 copies

3. Nuevo Aeropuerto Internacional de la Ciudad de México Preliminary Airspace Redesign - Informal Working Notes: NAICM Area Navigation and Conventional Standard Terminal Arrival Routes. See MITRE document F500-L16-044, dated 7 September 2016.
 - ASA: 5 copies
 - GACM: 5 copies
 - SENEAM: 5 copies
 - DGAC: 5 copies

4. Toluca International Airport Preliminary Airspace Redesign - Informal Working Notes: Toluca Area Navigation and Conventional Standard Terminal Arrival Routes. See MITRE document F500-L16-045, dated 7 September 2016.
 - ASA: 5 copies
 - GACM: 5 copies
 - SENEAM: 5 copies
 - DGAC: 5 copies

5. Nuevo Aeropuerto Internacional de la Ciudad de México Preliminary Airspace Redesign - Informal Working Notes: NAICM Area Navigation and Conventional Standard Instrument Departures. See MITRE document F500-L16-049, dated 7 September 2016.
 - ASA: 5 copies
 - GACM: 5 copies
 - SENEAM: 5 copies
 - DGAC: 5 copies

6. Toluca International Airport Preliminary Airspace Redesign - Informal Working Notes: Toluca Area Navigation Standard Instrument Departure Routes. See MITRE document F500-L16-050, dated 7 September 2016.
 - ASA: 5 copies
 - GACM: 5 copies
 - SENEAM: 5 copies
 - DGAC: 5 copies

7. Cancún Airport Preliminary Airspace Redesign - Informal Working Notes: Cancún and Cozumel Routes. See MITRE document F500-L16-051, dated 7 September 2016.
 - ASA: 5 copies
 - GACM: 5 copies
 - SENEAM: 5 copies
 - DGAC: 5 copies

8. Enclosure No. 1 to this Technical Letter (F500-L16-059): Cancún Airport - Conventional Departure Procedures, dated 26 September 2016.
 - ASA: 5 copies
 - GACM: 5 copies
 - SENEAM: 5 copies
 - DGAC: 5 copies

9. Enclosure No. 2 to this Technical Letter (F500-L16-059): Cancún Airport Human-In-The-Loop Simulations - Initial Laboratory Configuration Technical Requirements, dated 26 September 2016.
 - ASA: 5 copies
 - GACM: 5 copies
 - SENEAM: 5 copies
 - DGAC: 5 copies

10. Enclosure No. 3 to this Technical Letter (F500-L16-059): Mexico Area Control Center Enroute and Mexico City Terminal Maneuvering Area Airspace Redesign - Baseline Metrics Sector Analysis, dated 26 September 2016.

- ASA: 5 copies
- GACM: 5 copies
- SENEAM: 5 copies
- DGAC: 5 copies

11. Enclosure No. 4 to this Technical Letter (F500-L16-059): Photogrammetric, Satellite-Based Survey of the Toluca Airport and Its Surroundings - Final Report, dated 26 September 2016.

- ASA: 5 copies
- GACM: 5 copies
- SENEAM: 5 copies
- DGAC: 5 copies

12. Enclosure No. 5 to this Technical Letter (F500-L16-059): Nuevo Aeropuerto Internacional de la Ciudad de México - Key Airspace and Procedure Design-Related Activities (Updated), dated 26 September 2016.

- ASA: 5 copies
- GACM: 5 copies
- SENEAM: 5 copies
- DGAC: 5 copies

13. Enclosure No. 6 to this Technical Letter (F500-L16-059): Dual Independent Test-Bed Operations at Cancún - Key Airspace and Procedure Design-Related Activities (Updated), dated 26 September 2016.

- ASA: 5 copies
- GACM: 5 copies
- SENEAM: 5 copies
- DGAC: 5 copies

The distribution of the thirteen, above-mentioned documents, was completed.


Ing. Jorge Nevárez Jacobo


Date