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**Subject: Technical Letter: Work Status through 30 November 2013**

Dear Capt. López Meyer:

This letter respectfully submits to your attention a summary of the most significant ongoing project activities by MITRE through 30 November 2013. The following list summarizes those activities.

- In early October, a group of officials from ASA led by yourself visited MITRE's facilities in McLean, Virginia. You were accompanied by Ing. Jorge Nevárez and Ing. David de Jesús. That visit was extremely productive as it involved intense discussions regarding the overall project, key tasks, coordination requirements, and upcoming deliverables.
- At ASA's request, a MITRE team reviewed the characteristics of two AWOS units in ASA's possession. After a careful analysis, the team concluded that those two units are not appropriate to perform the weather monitoring required by the project. An e-mail detailing the reasons behind these conclusions was sent to ASA.
- Along with this technical letter, six enclosures are included. Each one is identified and briefly described below:
  - Enclosure No. 1: Alternative Runway Configuration for the Nuevo Aeropuerto Internacional de la Ciudad de México - Initial Assessment. This enclosure describes MITRE's initial examination of an alternative location for a six-parallel runway configuration located in the proximity of the town of Texcoco. This configuration is different than the one recommended by MITRE in July 2012 in documentation provided to the Dirección General de Aeronáutica Civil (DGAC) in that the alternative configuration shifts the runways to the west. It is important to mention that this assessment exclusively analyses the feasibility of the shift in terms of land separations, not approach or departure procedures.

- Enclosure No. 2: *Alternative Runway Configuration for the Nuevo Aeropuerto Internacional de la Ciudad de México - Feasibility Analysis of Independent Approach Procedures*. This enclosure describes the work performed by MITRE to verify Category (CAT) I Instrument Landing System (ILS) approach procedure feasibility, both to the north and south, for the configuration discussed in Enclosure No. 1. Note that final validation of this configuration still requires examination of CAT II/III ILS procedures, Performance-Based Navigation (PBN) procedures to better manage climb gradients, and the design of instrument departures. All of this will be the subject of MITRE's work in upcoming months.
- Enclosure No. 3: *Advanced Navigation Capabilities of Aircraft Operating in the Mexico City Area - A General Assessment*. This enclosure describes MITRE's assessment of current PBN equipage status of aircraft operating at the two main airports in the Mexico City basin (i.e., Mexico City International Airport and Toluca Airport). This is an enhancement of work initiated by MITRE during its 2008-2012 project for the DGAC.
- Enclosure No. 4: *Potential Airport Sites in the State of Hidalgo - Initial Exploratory Assessment*. This enclosure provides ASA with a summary of MITRE's initial exploratory investigation of three potential new airport locations within the State of Hidalgo near the towns of Tepeji del Río-Tlahuelilpan, Actopan-Santiago de Anaya, and Tulancingo.
- Enclosure No. 5: *Specifications for Automated Weather Observing Systems - For Three Potential Airport Sites in the State of Hidalgo*. This enclosure provides detailed specifications regarding the acquisition of weather monitoring systems for each of the three potential airport sites in Hidalgo described in Enclosure No. 4. At the request of ASA, this enclosure was rushed and delivered on 11 November 2013 (see MITRE letter F500-L14-003).
- Enclosure No. 6: *Project Data Preparation and Computerized Database Loading*. This enclosure describes and illustrates MITRE's computer program and basemap preparation efforts. It is also a guiding document on how ASA should deliver data to MITRE throughout the project. Finally, specific sets of data are requested through this enclosure.
- At the request of ASA, a MITRE team has been investigating for NAICM a potential runway shift to the west. This is a further shift west than the one described in Enclosure No. 1. ASA should be forewarned that each successive runway shift requires a detailed aeronautical analysis. At this time, MITRE is working on the aeronautical analyses of the shift discussed in Enclosure No. 1.

It is worthwhile mentioning that ASA reported to MITRE an intention by the Comisión Federal de Electricidad (CFE) of installing a power line in the proximity of the NAICM site. MITRE is waiting for coordinates and elevations of the power line to analyze its impact or possible relocation.

Sincerely,

A handwritten signature in blue ink, appearing to read "Robert Kleinhans", with a long horizontal flourish extending to the right.

Ing. Robert W. Kleinhans  
Project Technical Coordinator

Enclosures (6)

cc: Dr. Bernard Lisker