



# OVERFLYING MEXICAN TERRITORY

A guide to reporting to DGAC and paying SENEAM

Manny Aviation Services, S.A. de C.V.



## Definition of Mexican FIR

- ▶ FIR: Flight Information Region
- ▶ Mexico FIR: Is defined as the airspace within Mexican jurisdiction, where navigation services are provided, such as NAV aids, radio service, radar surveillance, etc...
- ▶ These services are provided by SENEAM (Navigation Services on Mexican Airspace by its Acronym in Spanish).
- ▶ Mexican Airspace is considered part of the Mexican Territory and the rights of its use is on hands of the Federal Government, as a federal channel of communication.



## Definition of Mexican FIR



The map displays the geographical outline of Mexico and its surrounding waters. A prominent red line delineates the boundaries of the Mexican Flight Information Region (FIR). The map is overlaid with a green grid. Numerous symbols, including triangles and circles, are scattered across the landmass, representing various aviation-related locations and facilities.



## Notifying Civil Aviation Authorities (DGAC)

Manny Aviation Services, S.A. de C.V.



## Why to Notify to DGAC?

- ▶ DGAC (Dirección General de Aeronáutica Civil) is the Federal Civil Aviation Authority, that has jurisdiction over Mexican Airspace.
- ▶ Belongs to the Ministry of Communications and Transport (Secretaria de Comunicaciones y Transportes).
- ▶ They are authorized and responsible to notify all the parties involved (such as ATC, Local Authorities, etc.) in the operations that are taking place on Mexican airspace.



## How to Notify to DGAC?

- ▶ You need to present a letter to DGAC requesting use of Mexican Airspace and stating the following important information:
  - Type of aircraft
  - Tail Number
  - Type of Operation (Private or Commercial)
  - Name of the Operator or Owner of the A/C
  - Complete Schedule of the Operation
  - Name of the Crew on board
  - Number of passengers
- ▶ Along with this letter DGAC will request a copy of the following A/C documents:
  - Airworthiness Certificate
  - Aircraft Registration Certificate
  - Worldwide Insurance Policy (covering Mexico)





## How to Notify to DGAC?

- ▶ The letter and the documents need to be submitted to:
  - Dirección General de Aeronáutica Civil
  - Av. Providencia 807
  - Col. Del Valle
  - 03100 México, D.F.
- ▶ Sometimes they accept email requests, depending on where the operator is located, but this needs to be checked directly with them.
- ▶ The contact addresses for consultation are:
  - [ptrres@sct.gob.mx](mailto:ptrres@sct.gob.mx)
  - [cjarquin@sct.gob.mx](mailto:cjarquin@sct.gob.mx)
  - [amontes@sct.gob.mx](mailto:amontes@sct.gob.mx)
- ▶ DGAC will give you a file number as an acknowledgement of your operation.



## Fees for using Mexican Airspace

Manny Aviation Services, S.A. de C.V.



## How an aircraft generates fees?

- ▶ Every aircraft flying within Mexican FIR is using a Federal channel of communication and should pay government duties.
- ▶ These are federal taxes and should be self-determined (this means the operator must calculate the fees on its own).
- ▶ Operator will need to make a calculation based on the kilometers flown and the wingspan of the aircraft.




## How do I calculate?

- ▶ First you need to classify your aircraft into one of these categories:

Aircraft by Wingspan			
Light		Medium	Large
Type A	Type B		
Up to 16.70 meters and helicopters	From 16.70 meters up to 25.00 meters	More than 25.00 meters and up to 38.00 meters	More than 38.00 meters

- ▶ Then refer to the following table:

Fee per Kilometer flown	
Wingspan	Rate in Mexican Pesos Currency (MXP)
Large	\$6.97 MXP
Medium	\$4.65 MXP
Light B	\$1.61 MXP
Light A	\$0.20 MXP

Note: These rates change every year.

- ▶ The formula is:
  - Fee = Rate x Kilometers flown



## How to determine the kilometers flown?

- ▶ SENEAM has already determined a wide list of pre-calculated distances based on the most used routes into, within and out of the country.
- ▶ These distances have been published in three issues of the Official Gazette of the Federation (Diario Oficial de la Federación).
  - February 15th, 2002
  - February 27th, 2004
  - October 28th, 2010
- ▶ If the route is not published in any of the forementioned issues then you need to calculate the distance manually.



## Manual Distance Calculation

- ▶ This distance is known as the Great-Circle distance.
- ▶ It will be measured from the point of entry to the Mexican FIR to the point of exit.
- ▶ The formula to be used is the following:

$$d = 1.852 * 60 \arccos(\sin \phi_1 \sin \phi_2 + \cos \phi_1 \cos \phi_2 \cos[\lambda_2 - \lambda_1])$$

Note: The factor of 60 is needed to convert from degrees to Nautical Miles, and then the factor of 1.852 to convert to kilometers.

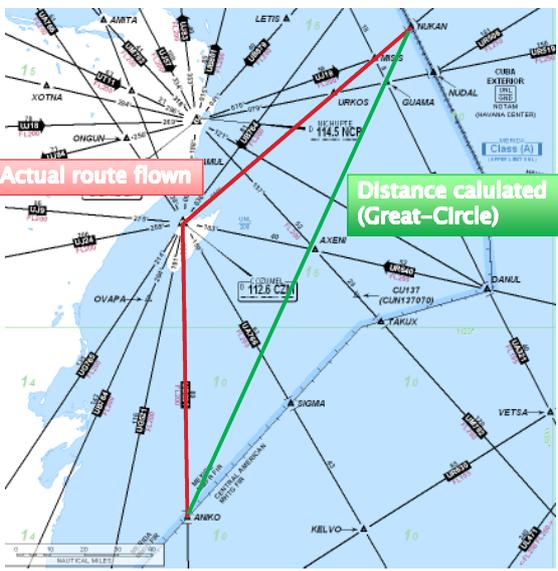
- ▶ Where:

$d$ : Distance in kilometers  
 $\phi_1$ : Entry point latitude  
 $\phi_2$ : Exit point latitude  
 $\lambda_1$ : Entry point longitude  
 $\lambda_2$ : Exit point longitude





- ▶ If a route such as the following is flown:
  - [...] NUKAN
  - UG765 CZM
  - UB881 ANKO [...]
- ▶ Only the entry and exit points to the FIR are needed to calculate the Great-Circle distance.




## Payment Sheet

- ▶ Go to <http://seneam.gob.mx/e51/pasoper1.asp>
- ▶ Select the year of the operation.
- ▶ Select “Personas Físicas” if you are an individual or “Personas Morales” if you are a Company.

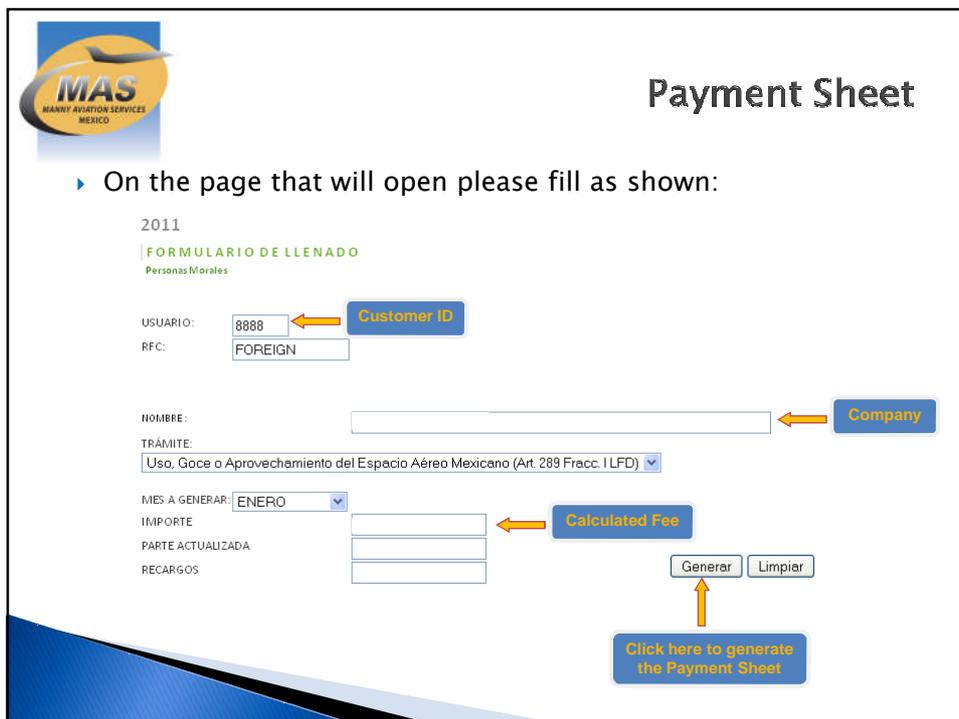
ESCRIBA SU NÚMERO DE USUARIO

PASO TRES

1. **Buscar Número de usuario** [Buscador] [Sino cuenta con el acceda en la liga.](#)
2. **Escriba su número de usuario en el campo de texto.**

[Siguiente](#) ▶

- ▶ Type in your username or 8888 if you don't have one and then click on “Siguiente”(next).



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MEXICO

## Payment Sheet

▶ On the page that will open please fill as shown:

2011  
FORMULARIO DE LLENADO  
Personas Morales

USUARIO:  ← **Customer ID**

RFC:

NOMBRE:  ← **Company**

TRÁMITE:

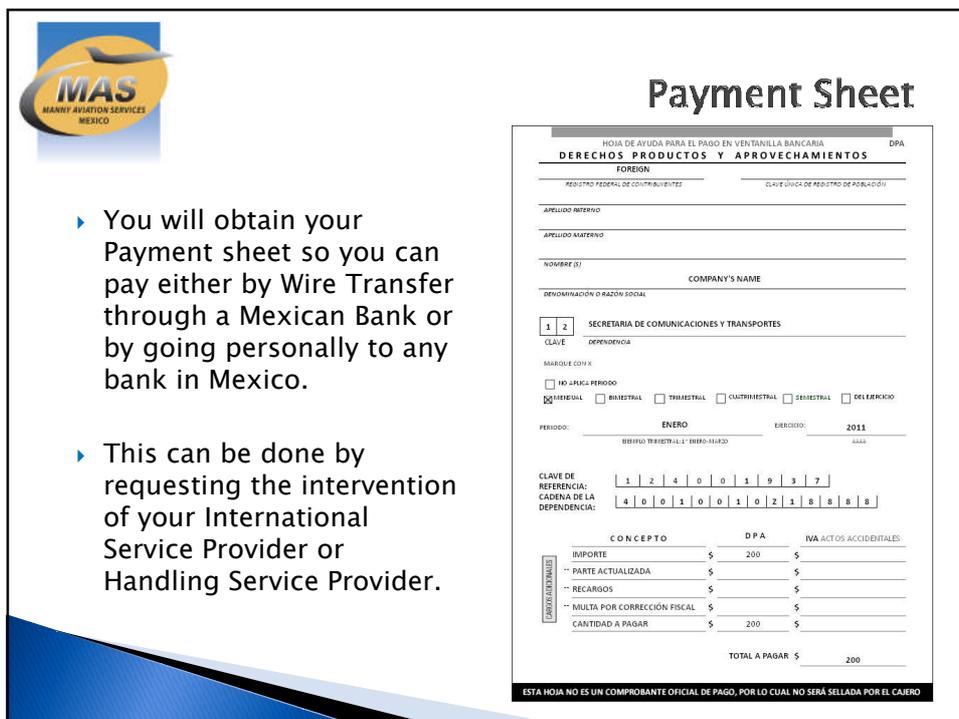
MES A GENERAR:

IMPORTE:  ← **Calculated Fee**

PARTE ACTUALIZADA:

RECARGOS:

[Click here to generate the Payment Sheet](#)



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MEXICAN AVIATION SERVICES  
MEXICO

## Payment Sheet

▶ You will obtain your Payment sheet so you can pay either by Wire Transfer through a Mexican Bank or by going personally to any bank in Mexico.

▶ This can be done by requesting the intervention of your International Service Provider or Handling Service Provider.

DPA

**HOJA DE AYUDA PARA EL PAGO EN VENTANILLA BANCARIA**  
**DERECHOS PRODUCTOS Y APROVECHAMIENTOS**

FOREIGN

REGISTRO FEDERAL DE CONTRIBUYENTES      CLAVE ÚNICA DE REGISTRO DE POBLACIÓN

APPELLIDO PATERNO \_\_\_\_\_

APPELLIDO MATERNO \_\_\_\_\_

NOMBRE(S) \_\_\_\_\_

COMPANY'S NAME

DENOMINACIÓN O RAZÓN SOCIAL \_\_\_\_\_

1     2    SECRETARIA DE COMUNICACIONES Y TRANSPORTES

CLAVE DEPENDENCIA \_\_\_\_\_

MARQUE CON X:

NO AVIACION PERIODO     BIENESTRAL     TRIMESTRAL     CUATRIMESTRAL     SEMESTRAL     OXI EJERCICIO

PERIODO: ENERO      EJERCICIO: 2011

BIENESTRAL: 1111    BIENESTRAL: 2222

CLAVE DE REFERENCIA: 1 2 4 0 0 1 9 9 7

CADENA DE LA DEPENDENCIA: 4 0 0 1 0 0 1 0 2 1 8 8 8

CONCEPTO	DPA	IVA ACTOS ACCIDENTALES
IMPORTE	\$ 200	\$
PARTE ACTUALIZADA	\$	\$
RECARGOS	\$	\$
MULTA POR CORRECCIÓN FISCAL	\$	\$
CANTIDAD A PAGAR	\$ 200	\$
<b>TOTAL A PAGAR</b>		<b>\$ 200</b>

ESTA HOJA NO ES UN COMPROBANTE OFICIAL DE PAGO, POR LO CUAL NO SERÁ SELLADA POR EL CAJERO



## Customer ID

- ▶ Your Customer ID (number needed for the report to ATC Authorities) can be found at the following link:
  - <http://www.seneam.gob.mx/e51/Usearch.asp>
- ▶ Here you need to type the Company name (or part of it), then click on **GO** and search for the correct option on the list that will appear below.



Numero de Usuario / User Number	Pais Social / Company Name	Nombre / Name	Apellido / Last Name	Apellido / Surname
7	AERIO SA			
8	AERIO DISCO			
12	AERIO EXPRESS MEXICANO SA DE CV			
14	AERIOFISIO SA DE CV			
15	AERIOGLIA SA DE CV			
18	AERIOUNAS DE AGUA FREJA			
19	AERIOUNAS MEXICANAS SA DE CV			
20	AERIOUNAS COCIBER SA			
21	AERIOUNAS ESCORTAS DE SAN LUIS SA DE CV			
23	AERIOUNAS DEL NORTE SA			



## Customer ID

- ▶ If you don't have a Customer ID with SENEAM yet, you can use a Generic number: 8888.
- ▶ If you wish to be registrated before SENEAM you need to send an e-mail to [jortizg@sct.gob.mx](mailto:jortizg@sct.gob.mx) asking for it, and including the following information:
  - Company Name:
  - Type of entity: (Inc., Corp, Co. etc..)
  - Address
  - Telephone number
  - Contact name or Legal Representative
  - Airline ICAO three letter designator or similar.
  - List of the Company fleet including Registration, Wingspan and A/C Type.
- ▶ Registration of the Company is only needed for operators having more than five Overflights a year.



## Payment and Reporting

- ▶ Once the fees are paid, the receipt needs to be sent and reported to ATC authorities on a monthly basis.
- ▶ These reports need to be sent to [jortizq@sct.gob.mx](mailto:jortizq@sct.gob.mx) and CC: [d\\_operacion@sct.gob.mx](mailto:d_operacion@sct.gob.mx) with all the overflying operations of the month.
- ▶ If an operator did not fly during the month no report needs to be sent.
- ▶ The payment should be executed within the first 17 days of next month, and afterwards you must submit the report no later than 5 days after payment.



## Payment and Reporting

- ▶ Monthly operations need to be reported in a chart-type text file, without titles, separated by commas, including all important information of the operation following the next order:

Column Number	Consecutive Number	Type	Character Count	Notes	Example
1	Consecutive Number	Numeric	1 to 6		
2	Customer ID	Numeric	1 to 5		8166
3	Tail number	Alphanumeric	1 to 10	Altogether	N1234FF
4	Operation Date	Alphanumeric	11	dd/mm/yy	03/feb/2011
5	DEP or ARR Time	Alphanumeric	5	hh:mm in UTC time	01:35
6	Callsign	Alphanumeric	1 to 10	If no callsign fill with zero	JJ256
7	Origin/Destination	Airports ICAO codes	9	XXXXXXX	KSDMMTO
8	ICAO A/C Type	Alphanumeric	1 to 10		LJ45
9	Wingspan	Numeric	Any	In meters, two decimals	19.60
10	Distance Flown	Numeric	Any	In kilometers, without decimals	1024
11	Rate	Numeric	Any	Two decimals, taken from the "Federal Rights Law"	0.18
12	Fee	Numeric	Any	Formula: Distance*Rate. Two decimals	184.32

- ▶ The file needs to be saved with the following name:
  - **CustomerID\_Month\_Year**
- ▶ File needs to be sent in TXT type. (Example: 8166\_feb\_05.txt)



## Report Examples

▶ This is the way it should appear on an Excel chart:

Consecutive Number	Customer ID	Tail number	Operation Date	DEP or ARR Time	Callsign	Origin/Destination	CAOA/C Type	Wingspan (m)	Distance Flown (km)	Rate	Fee
1	2520	N551XJ	23/dic/2011	18:00	0	MRLB/KLRD	CL30	19.46	649	1.44	934.56
2	2520	N550XJ	23/dic/2011	15:00	0	MWCR/KSLC	CL30	19.46	818	1.44	1177.92
3	2520	N757XJ	26/dic/2011	20:00	0	MRLB/KOAK	C750	19.50	3006	1.44	4328.64

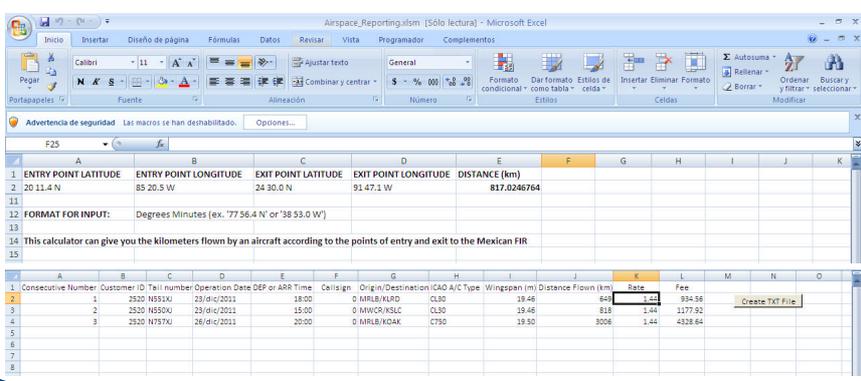
▶ This is the way it should be sent (TXT File):

- ▶ 1,2520,N551XJ,23/dic/2011,18:00,0,MRLB/KLRD,CL30,19.46,649,1.44,934.56
- ▶ 2,2520,N550XJ,23/dic/2011,15:00,0,MWCR/KSLC,CL30,19.46,818,1.44,1177.92
- ▶ 3,2520,N757XJ,26/dic/2011,20:00,0,MRLB/KOAK,C750,19.50,3006,1.44,4328.64



## Excel Program

▶ Please feel free to use Manny's program as a tool to make this process easier:



The screenshot shows an Excel spreadsheet with the following data in the main table:

Consecutive Number	Customer ID	Tail number	Operation Date	DEP or ARR Time	Callsign	Origin/Destination	CAOA/C Type	Wingspan (m)	Distance Flown (km)	Rate	Fee
1	2520	N551XJ	23/dic/2011	18:00	0	MRLB/KLRD	CL30	19.46	649	1.44	934.56
2	2520	N550XJ	23/dic/2011	15:00	0	MWCR/KSLC	CL30	19.46	818	1.44	1177.92
3	2520	N757XJ	26/dic/2011	20:00	0	MRLB/KOAK	C750	19.50	3006	1.44	4328.64

The spreadsheet also includes a section for 'ENTRY POINT LATITUDE' and 'EXIT POINT LONGITUDE' with a 'DISTANCE (km)' calculated as 817.0246764. A note states: 'This calculator can give you the kilometers flown by an aircraft according to the points of entry and exit to the Mexican FIR'. A 'Create TXT File' button is visible in the bottom right corner of the spreadsheet area.



# Thanks for your attention!

Any questions please feel free to ask, or contact us later at  
[flightops@mannyaviation.com](mailto:flightops@mannyaviation.com)

Manny Aviation Services, S.A. de C.V.