



# 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





# Notifying Civil Aviation Authorities (DGAC)

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



# Why to Notify to DGAC?

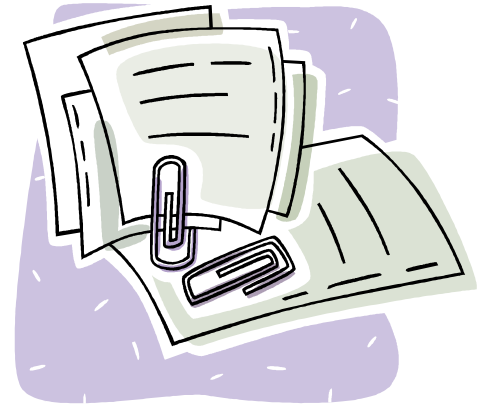
- ▶ DGAC (Dirección General de Aeronáutica Civil) is the Federal Civil Aviation Authority, that has jurisdiction over Mexican Airspace.
- ▶ Belongs to the Ministry of Communications and Transport (Secretaria de Comunicaciones y Transportes).
- ▶ They are authorized and responsible to notify all the parties 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)
  - [ammontes@sct.gob.mx](mailto:ammontes@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

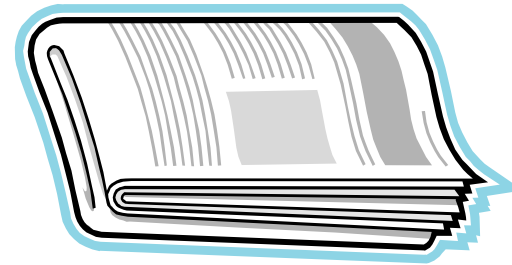
Note: These rates change every year.

- ▶ 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:

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

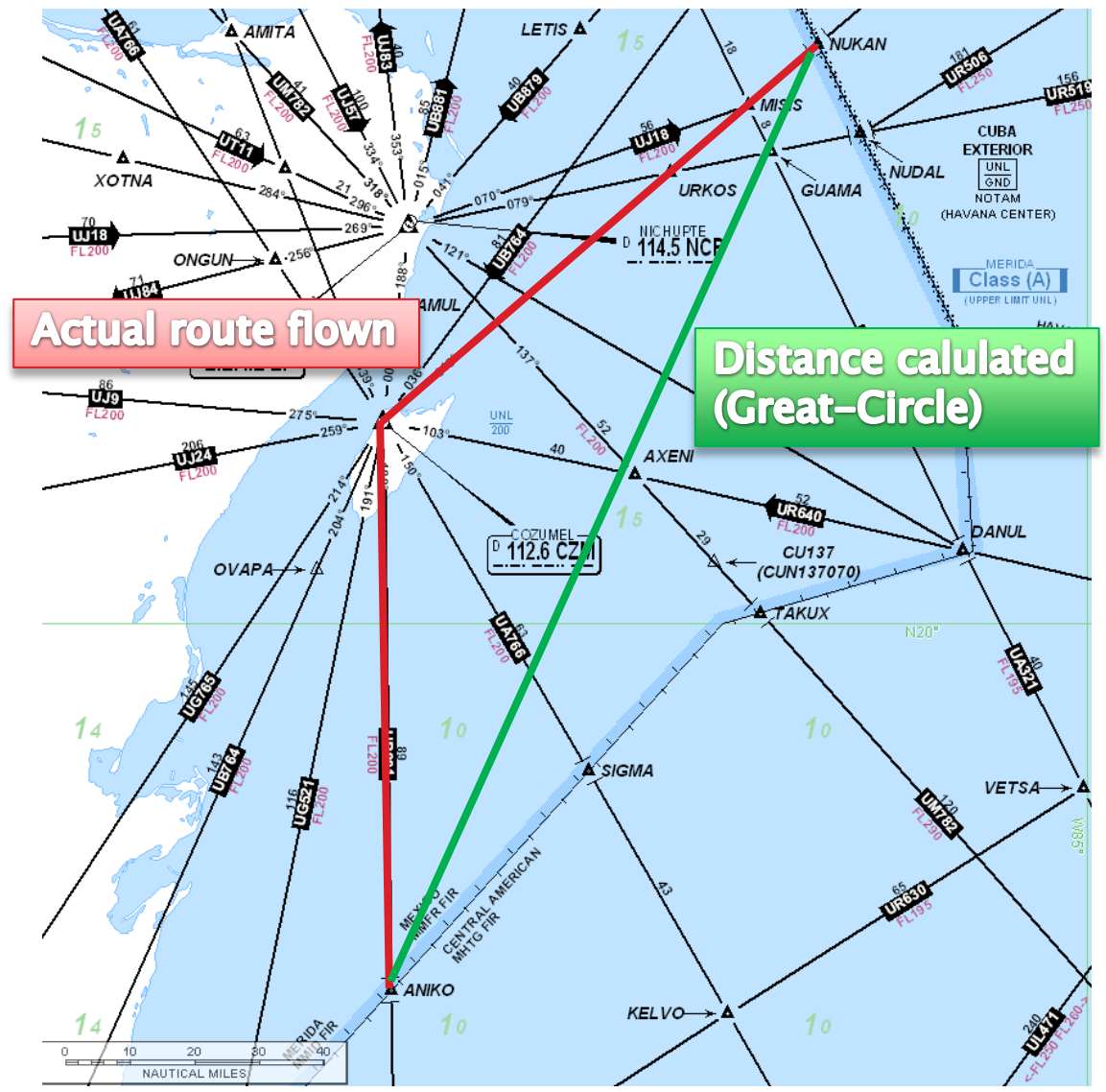
Note: The factor of 60 is needed to convert from degrees to Nautical Miles, and then the factor of 1.852 to convert to kilometers.

- ▶ 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).



# 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:

PARTE ACTUALIZADA:

RECARGOS:

**Calculated Fee**

**Click here to generate the Payment Sheet**



# 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.

HOJA DE AYUDA PARA EL PAGO EN VENTANILLA BANCARIA DPA

**DERECHOS PRODUCTOS Y APROVECHAMIENTOS**

**FOREIGN**

---

REGISTRO FEDERAL DE CONTRIBUYENTES CLAVE ÚNICA DE REGISTRO DE POBLACIÓN

---

\_\_\_\_\_  
APELLIDO PATERNO

---

\_\_\_\_\_  
APELLIDO MATERNO

---

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

---

COMPANY'S NAME

---

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

---

1	2	SECRETARIA DE COMUNICACIONES Y TRANSPORTES
---	---	--

CLAVE DEPENDENCIA

MARQUE CON X

NO APLICA PERIODO

MENSUAL  BIMESTRAL  TRIMESTRAL  CUATRIMESTRAL  SEMESTRAL  DEL EJERCICIO

PERIODO: EJERCICIO:

ENERO 2011

EJEMPLO TRIMESTRAL: 1° ENERO-MARZO AAAA

CLAVE DE REFERENCIA: 

1	2	4	0	0	1	9	3	7
---	---	---	---	---	---	---	---	---

CADENA DE LA DEPENDENCIA: 

4	0	0	1	0	0	1	0	Z	1	8	8	8	8
---	---	---	---	---	---	---	---	---	---	---	---	---	---

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

Version Móvil | English | FAQs | Mapa del Sitio | RSS | Contacto

Gobierno Federal SCT **seneam** SCT SERVICIOS A LA NAVEGACIÓN EN EL ESPACIO AÉREO MEXICANO **seneam.gob.mx**

INICIO | ESCRIBO | BUSCADOR DE USUARIOS

BUSQUEDA DE USUARIOS / USERS SEARCH

Búsqueda por Nombre de Usuario/ Searching by User Name

Nombre / Name:

Registros Por Página:   
Results per page:

Se encontraron: 497 Resultado(s)

Número de Usuario/ User Number	Razon Social/ Company Name	Nombre/Name	Apellido/Last Name	Apellido Materno
7	AEROCER SA			
8	AERO CISO			
13	AERO EXPRESS MEXICANO SA DE CV			
14	AEROFRISCO SA DE CV			
15	AEROGISA SA DE CV			
18	AEROLINEAS DE AGUA PRIETA			
19	AEROLINEAS BACACORAGUA SA DE CV			
20	AEROLINEAS COLIBRI SA			
21	AEROLINEAS EJECUTIVAS DE SAN LUIS SA DE CV			
23	AEROLINEAS 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 registered 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 [jortizg@sct.gob.mx](mailto:jortizg@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/mmm/yyyy	09/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	XXXX/XXXX	KSDM/MMTO
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	ICAO A/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:

Airspace\_Reporting.xlsm [Sólo lectura] - Microsoft Excel

Inicio Insertar Diseño de página Fórmulas Datos Revisar Vista Programador Complementos

Calibri 11 Fuente Alineación Número Estilos Celdas Modificar

Advertencia de seguridad Las macros se han deshabilitado. Opciones...

	A	B	C	D	E	F	G	H	I	J	K
1	ENTRY POINT LATITUDE	ENTRY POINT LONGITUDE	EXIT POINT LATITUDE	EXIT POINT LONGITUDE	DISTANCE (km)						
2	20 11.4 N	85 20.5 W	24 30.0 N	91 47.1 W	817.0246764						
11											
12	FORMAT FOR INPUT:	Degrees Minutes (ex. '77 56.4 N' or '38 53.0 W')									
13											
14	This calculator can give you the kilometers flown by an aircraft according to the points of entry and exit to the Mexican FIR										
15											

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	Consecutive Number	Customer ID	Tail number	Operation Date	DEP or ARR Time	Call sign	Origin/Destination	ICAO A/C Type	Wingspan (m)	Distance Flown (km)	Rate	Fee			
2	1	2520	N551XJ	23/dic/2011	18:00	0	MRLB/KLRD	CL30	19.46	649	1.44	934.56			
3	2	2520	N550XJ	23/dic/2011	15:00	0	MWCR/KSLC	CL30	19.46	818	1.44	1177.92			
4	3	2520	N757XJ	26/dic/2011	20:00	0	MRLB/KOAK	C750	19.50	3006	1.44	4328.64			
5															
6															
7															
8															

Create TXT File



# 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.