



SIP/2008-NE/16
Caso de negocio

Proyecto Especial de Implantación

Introducción a ejercicios prácticos para el desarrollo de un caso de negocio

(Presentado por Chaouki Mustapha
Economista, OACI)

Taller sobre el desarrollo de un caso de negocio para la
implantación de sistemas CNS/ATM
(Lima, 10 – 14 Noviembre 2008)

Bienvenidos a

El modelo de caso de negocio

Introducción

Pasos

- Paso 1 : Ingresar datos de referencia
- Paso 2 : Ingresar datos sobre los equipos con tecnología convencional
- Paso 3 : Crear el escenario de implantación
 - Paso 3/1 : Seleccionar el área homogénea **ATM**
 - Paso 3/2 : Seleccionar los tipos de equipo con tecnología convencional
 - Paso 3/3 : Definir los parámetros del escenario
 - Paso 3/4 : Tomar decisiones en cuanto a los equipos con tecnología convencional
 - Paso 3/5 : Tomar decisiones en cuanto a los equipos con nueva tecnología
 - Paso 3/6 : Agregar los pronósticos sobre la flota y las horas de vuelo
 - Paso 3/7 : Tomar decisiones en cuanto al equipamiento de las aeronaves y las tasas de eficiencia
 - Paso 3/8 : Agregar los costos adicionales
 - Paso 3/9 : Asignarle un nombre al escenario

Pasos (cont.)

- Paso 4 : *Análisis del escenario*
 - Paso 4/1 : *Seleccionar el escenario*
 - Resultados/1 : *Valores resultantes del análisis*
 - Resultados/2 : *Costos por Estado*
 - Resultados/3 : *Costos del proveedor de servicios por categoría de equipo*
 - Resultados/4 : *Detalles de los costos del proveedor de servicios*
 - Resultados/5 : *Costos de la tecnología convencional, por lugar y categoría de costos*
 - Resultados/6 : *Costos de la nueva tecnología por lugar y categoría de costos*
 - Resultados/7 : *Cuadro de costos de la tecnología convencional*
 - Resultados/8 : *Cuadro de costos de la nueva tecnología*

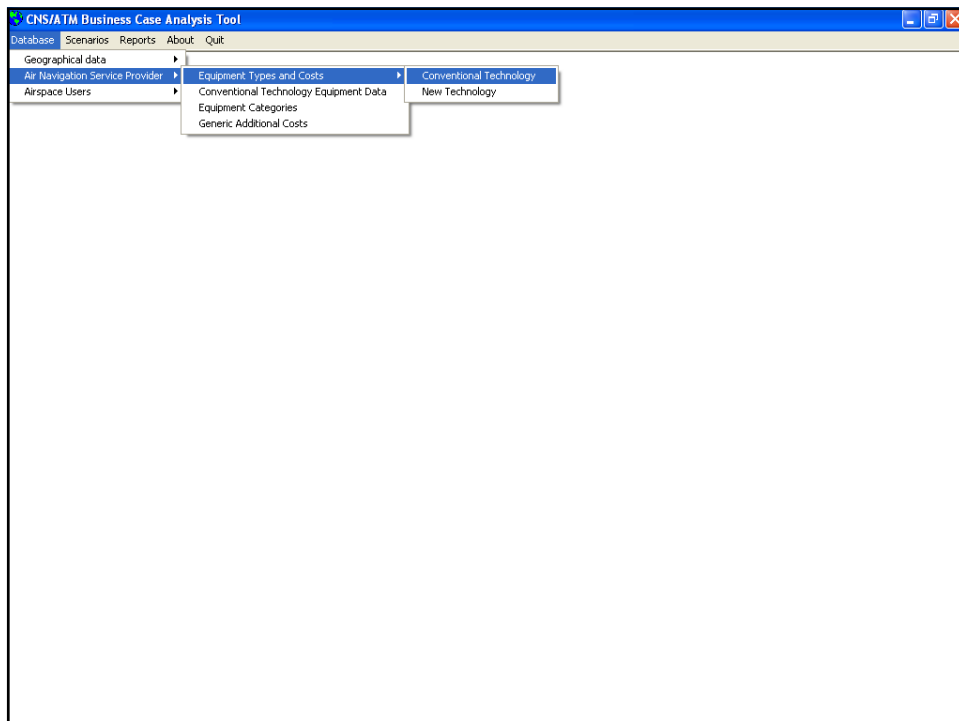
5

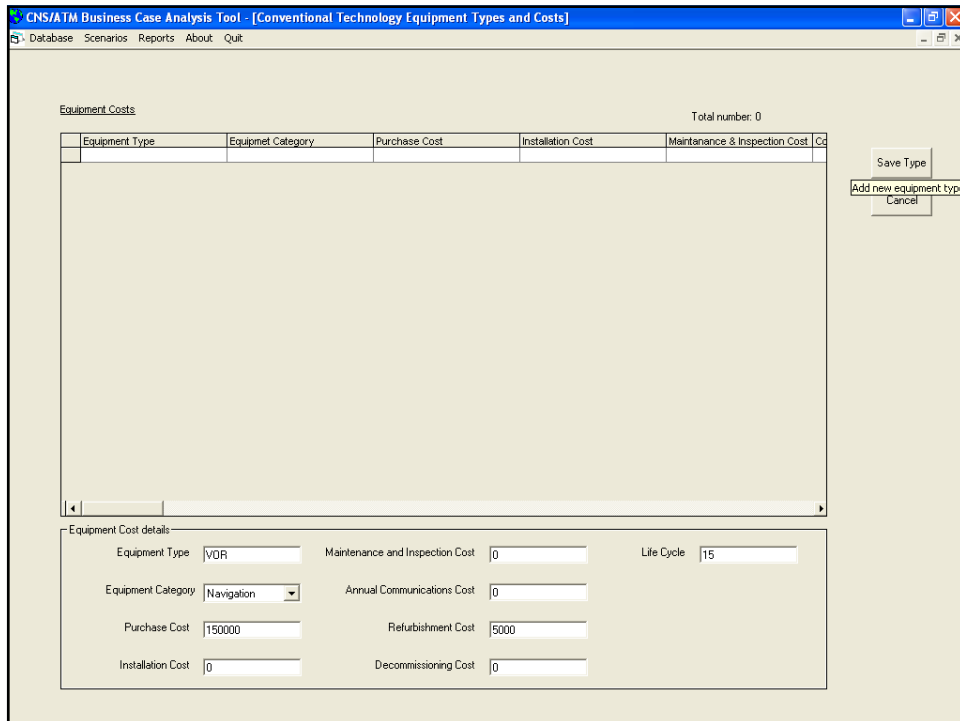
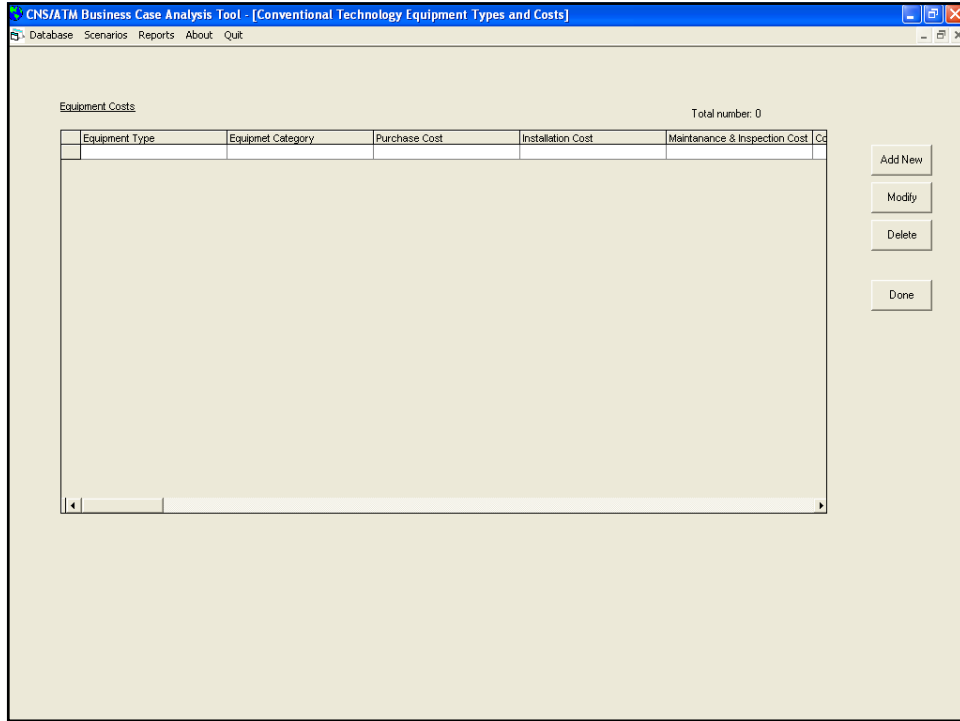
Pasos (cont.)

- Resultados/9 : *Cuadro de recuperación de costos del proveedor de servicios*
- Resultados/10 : *Detalles de los costos de aviónica*
- Resultados/11 : *Costos de aviónica por categoría de costos*
- Resultados/12 : *Costos de aviónica por tipo de aeronave y tipo de aviónica*
- Resultados/13 : *Cuadro de costos de los usuarios del espacio aéreo*
- Resultados/14 : *Detalles de los beneficios de los usuarios del espacio aéreo*
- Resultados/15 : *Cuadro de beneficios de los usuarios del espacio aéreo*
- Resultados/16 : *Cuadro de recuperación de costos de los usuarios del espacio aéreo*

6

Paso 1 : Ingresar datos de referencia





CNS/ATM Business Case Analysis Tool - [Conventional Technology Equipment Types and Costs]

Database Scenarios Reports About Quit

Equipment Costs Total number: 1

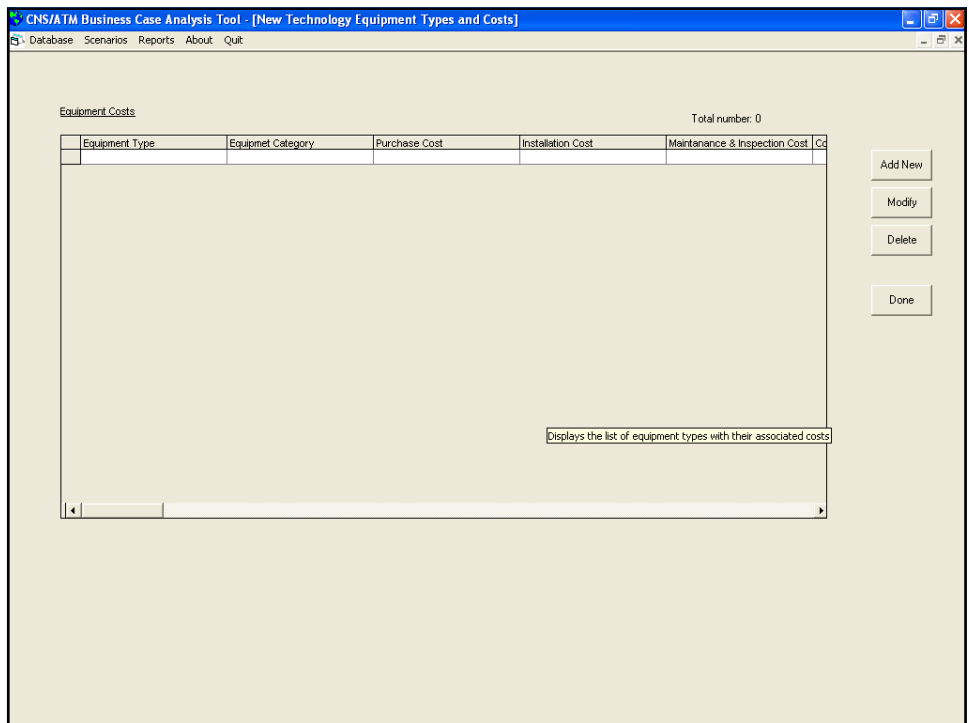
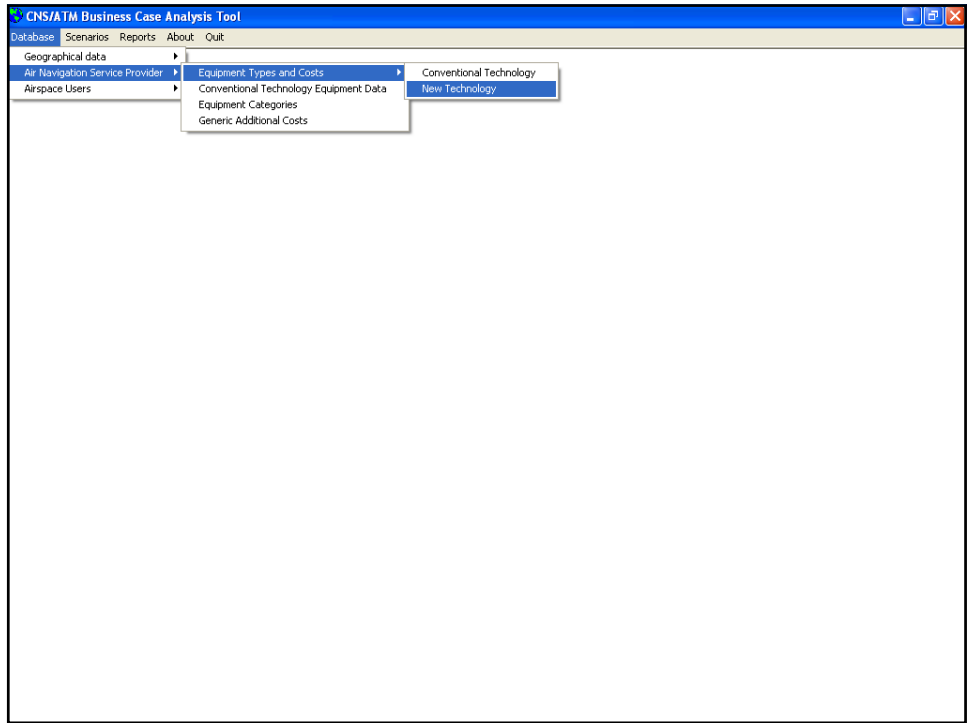
Equipment Type	Equipment Category	Purchase Cost	Installation Cost	Maintenance & Inspection Cost	Co
VOR	Navigation	150000	0	0	0

CNS/ATM Business Case Analysis Tool - [Conventional Technology Equipment Types and Costs]

Database Scenarios Reports About Quit

Equipment Costs Total number: 6

Equipment Type	Equipment Category	Purchase Cost	Installation Cost	Maintenance & Inspection Cost	Co
VOR	Navigation	150000	0	0	0
VHF VOXCEIDATA	Communication	620000	0	750	0
PSR	Surveillance	10000000	0	2000	0
MISSR	Surveillance	54000000	0	1000	0
ILS CAT II	Navigation	650000	0	75000	0
DVOR	Navigation	380000	0	0	0



CNS/ATM Business Case Analysis Tool - [New Technology Equipment Types and Costs]

Database Scenarios Reports About Quit

Equipment Costs Total number: 0

Equipment Type	Equipment Category	Purchase Cost	Installation Cost	Maintenance & Inspection Cost	Co

Save Type
Cancel

Equipment Cost details

Equipment Type: AMHS Maintenance and Inspection Cost: 5000 Life Cycle: 15

Equipment Category: Communication Annual Communications Cost: 0

Purchase Cost: 5000000 Refurbishment Cost: 0

Installation Cost: 0 Decommissioning Cost: 0

CNS/ATM Business Case Analysis Tool - [New Technology Equipment Types and Costs]

Database Scenarios Reports About Quit

Equipment Costs Total number: 1

Equipment Type	Equipment Category	Purchase Cost	Installation Cost	Maintenance & Inspection Cost	Co
▶ AMHS	Communication	5000000	0	5000	0

Add New
Modify
Delete
Done

CNS/ATM Business Case Analysis Tool - [New Technology Equipment Types and Costs]

Database Scenarios Reports About Quit

Equipment Costs Total number: 7

Equipment Type	Equipment Category	Purchase Cost	Installation Cost	Maintenance & Inspection Cost	Cost
AMHS	Communication	500000	0	5000	0
AMSS Voice/Data	Communication	650000	0	5000	0
GBAS	Navigation	850000	0	10000	0
SBAS-Ref	Navigation	250000	0	5000	0
SBAS-Mst	Navigation	300000	0	5000	22
ADS-B	Surveillance	350000	35000	10000	0
ADS-C (Workstations)	Surveillance	250000	0	10000	0

Add New
Modify
Delete
Done

CNS/ATM Business Case Analysis Tool

Database Scenarios Reports About Quit

- Geographical data
- Air Navigation Service Provider
- Airspace Users
 - Aircraft Type Data
 - Avionics Data

CNS/ATM Business Case Analysis Tool - [Aircraft data]

Database Scenarios Reports About Quit

List of aircraft types Total number: 71

Aircraft Code	Aircraft Type	Average Cost per Hour
A320-1/2	A320-1/2	1736
B-737-1/2	B-737-1/2	1769
B-737-2C	B-737-2C	1846
B-737-3	B-737-3	1628
B-737-4	B-737-4	1637
B-737-5	B-737-5	1409
B-757	B-757	2166
DC-9-10	DC-9-10	1558
DC-9-30	DC-9-30	1649
DC-9-40	DC-9-40	1585
DC-9-50	DC-9-50	1804
F-28	F-28	1899
FOKR-100	FOKR-100	1549
FOKR-70	FOKR-70	1429
MD-80	MD-80	1762
MD-87	MD-87	783
MD-90	MD-90	147
A300-600	A300-600	3533
A300-X4	A300-X4	3543
B-767-2ER	B-767-2ER	2859
B-767-3ER	B-767-3ER	3074
B-777	B-777	3838
B-727-2	B-727-2	2409
DC-10-1	DC-10-1	4615

Add New
Modify
Delete
Done

CNS/ATM Business Case Analysis Tool - [Aircraft data]

Database Scenarios Reports About Quit

List of aircraft types Total number: 71

Aircraft Code	Aircraft Type	Average Cost per Hour
A320-1/2	A320-1/2	1736
B-737-1/2	B-737-1/2	1769
B-737-2C	B-737-2C	1846
B-737-3	B-737-3	1628
B-737-4	B-737-4	1637
B-737-5	B-737-5	1409
B-757	B-757	2166
DC-9-10	DC-9-10	1558
DC-9-30	DC-9-30	1649
DC-9-40	DC-9-40	1585
DC-9-50	DC-9-50	1804
F-28	F-28	1899
FOKR-100	FOKR-100	1549
FOKR-70	FOKR-70	1429
MD-80	MD-80	1762
MD-87	MD-87	783
MD-90	MD-90	147
A300-600	A300-600	3533
A300-X4	A300-X4	3543
B-767-2ER	B-767-2ER	2859
B-767-3ER	B-767-3ER	3074
B-777	B-777	3838
B-727-2	B-727-2	2409
DC-10-1	DC-10-1	4615

Save Aircraft
Cancel

Aircraft Data

Aircraft Code

Aircraft Type

Average Cost Per Hour

CNS/ATM Business Case Analysis Tool - [Aircraft data]

Database Scenarios Reports About Quit

List of aircraft types Total number: 71

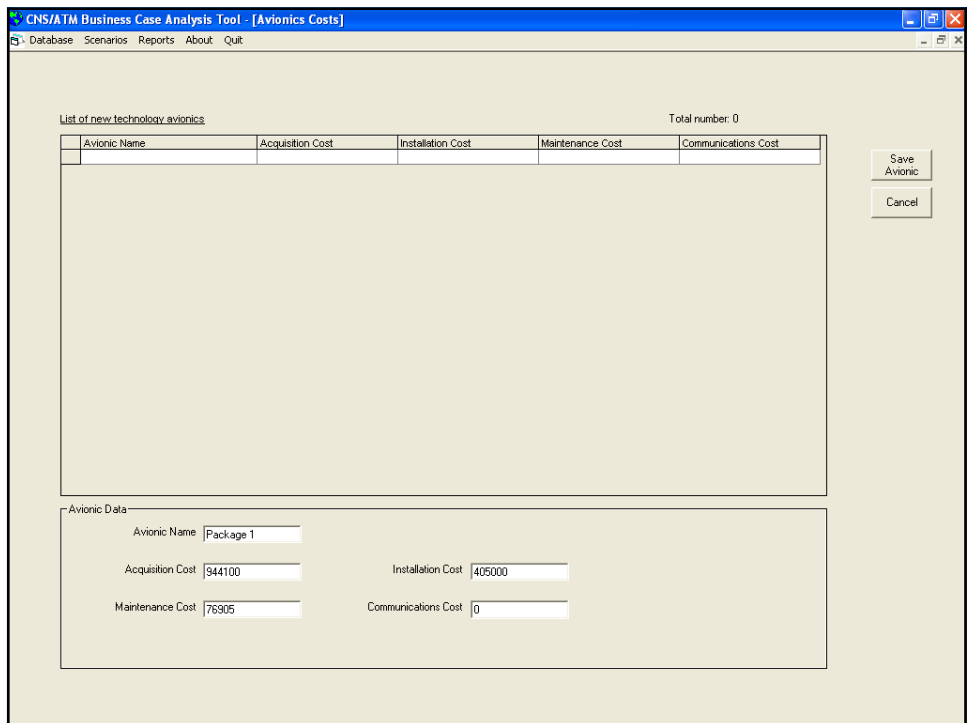
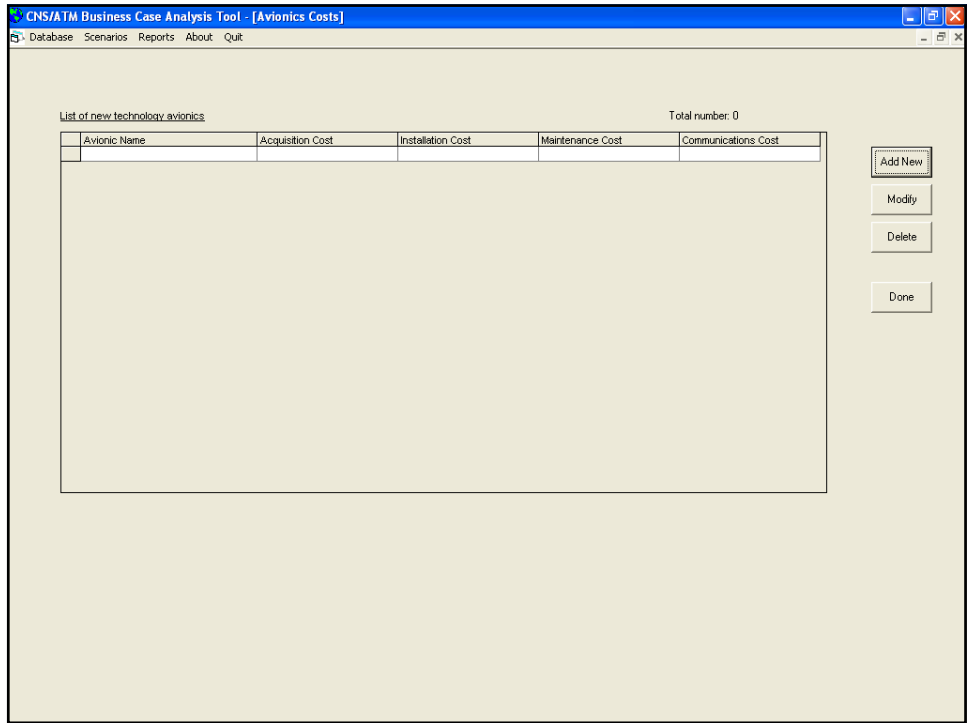
Aircraft Code	Aircraft Type	Average Cost per Hour
SHORT360	SHORT360	716
OTHERS	OTHERS	500
A330	A330	3500
A320	A320	3500
A310	A310	3500
C130	C130	2500
A340	A340	3500
K35R	K35R	1500
B757	B757	5000
IL18	IL18	4000
C17	C17	2500
AN12	AN12	1500
AN24	AN24	1500
SH7	SH7	1000
T154	T154	1200
BA11	BA11	1200
IL76	IL76	3000
GLF4	GLF4	2500
C135	C135	1500
P3	P3	1000
UH1	UH1	800
NIM	NIM	500
B707	B707	1500
ATR-42	ATR-42	598

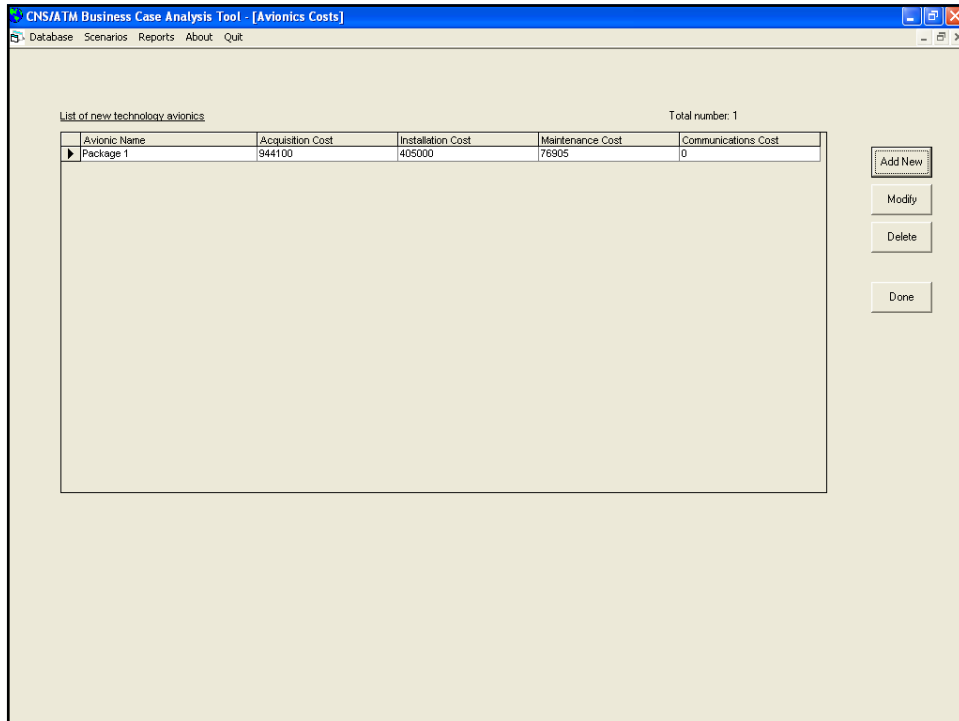
Add New
Modify
Delete
Done

CNS/ATM Business Case Analysis Tool

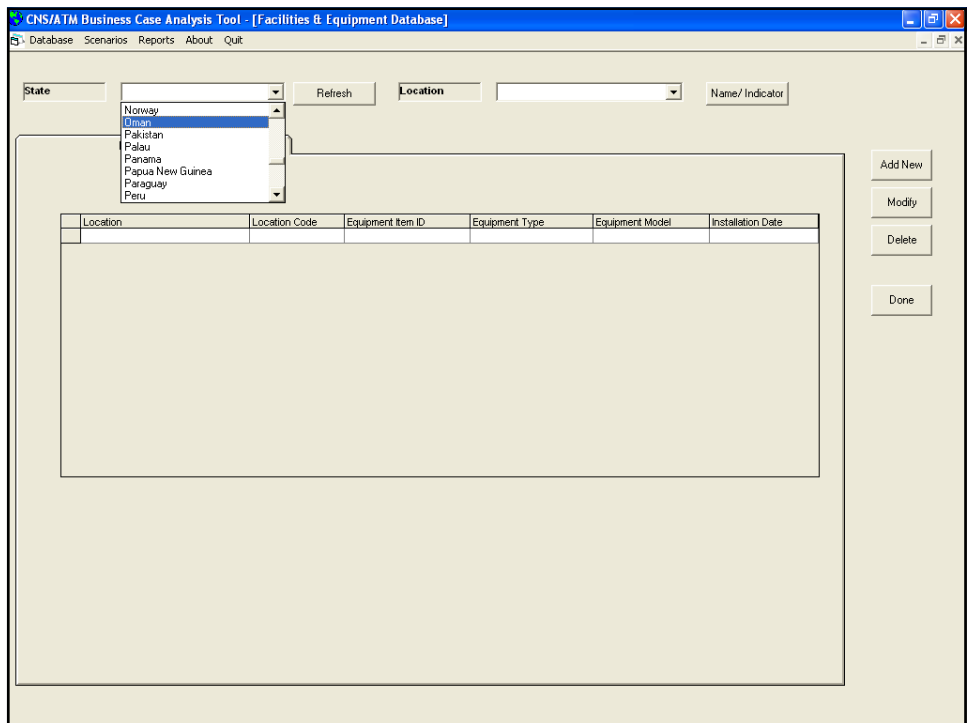
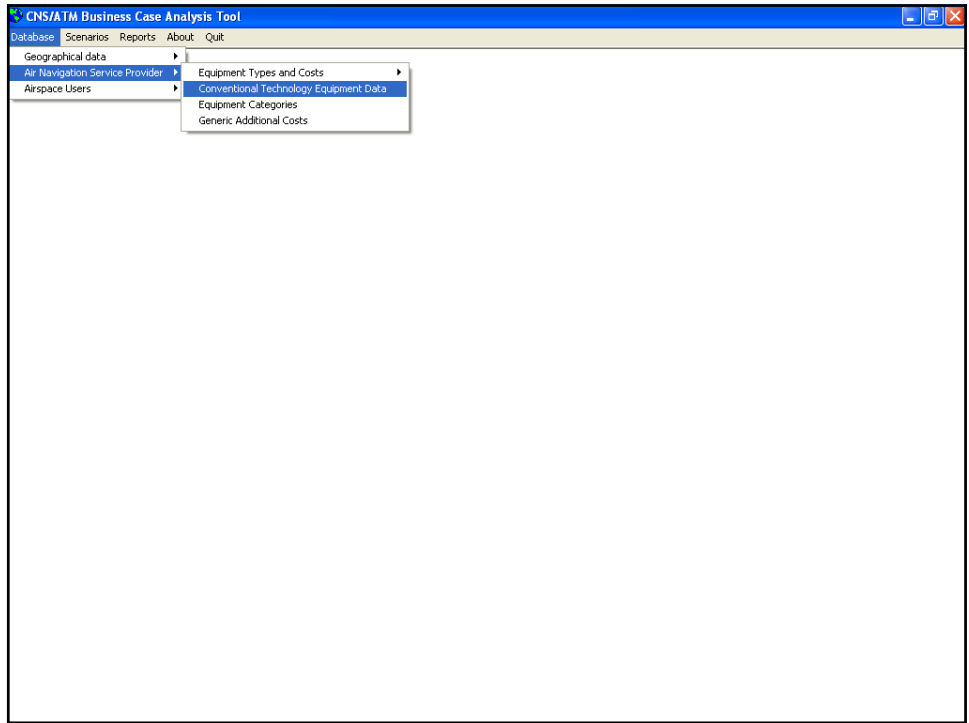
Database Scenarios Reports About Quit

- Geographical data
- Air Navigation Service Provider
- Airspace Users
 - Aircraft Type Data
 - Avionics Data





Paso 2 : Ingresar datos sobre los equipos con tecnología convencional



CNS/ATM Business Case Analysis Tool - [Facilities & Equipment Database]

Database Scenarios Reports About Quit

State: Oman Refresh Location: MUSCAT/SEEB INTL Name/Indicator

Equipment list

Location	Location Code	Equipment Item ID	Equipment Type	Equipment Model	Installation Date

Save Equipment Cancel

Current Equipment Item data

Equipment Item ID:

Equipment Type:

Equipment Model:

Installation Date: 19/12/05

CNS/ATM Business Case Analysis Tool - [Facilities & Equipment Database]

Database Scenarios Reports About Quit

State: Oman Refresh Location: MUSCAT/SEEB INTL Name/Indicator

Equipment list

Location	Location Code	Equipment Item ID	Equipment Type	Equipment Model	Installation Date

Save Equipment Cancel

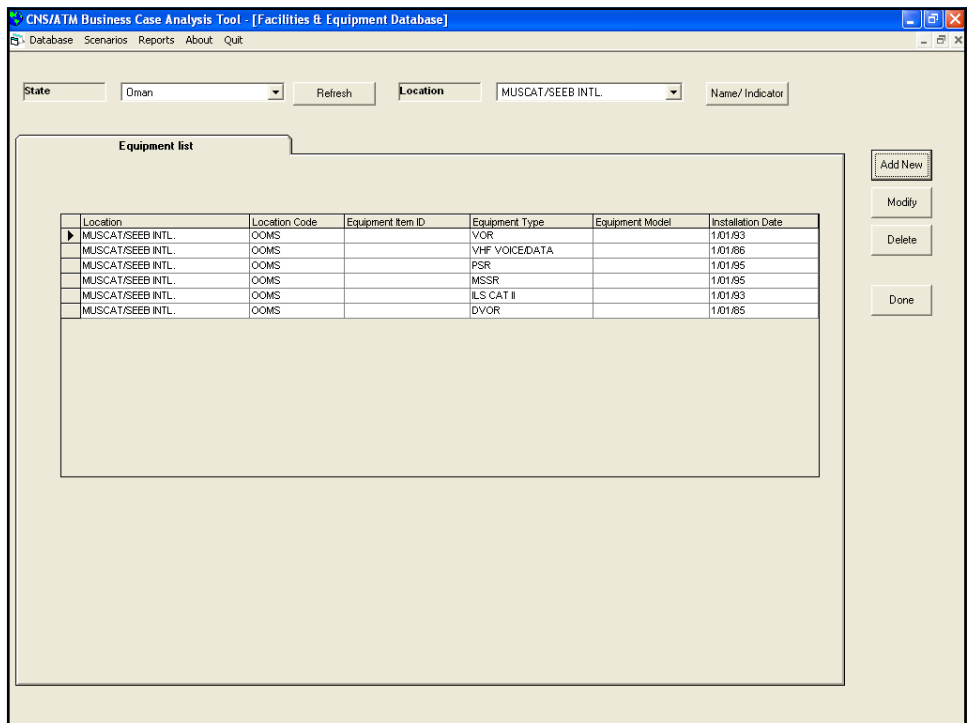
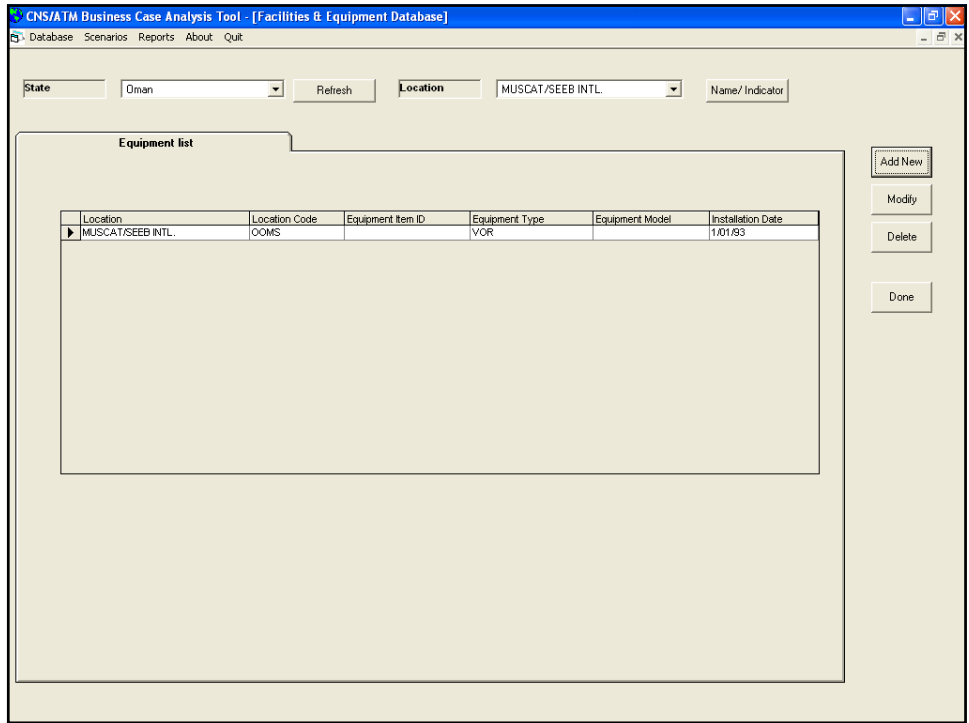
Current Equipment Item data

Equipment Item ID:

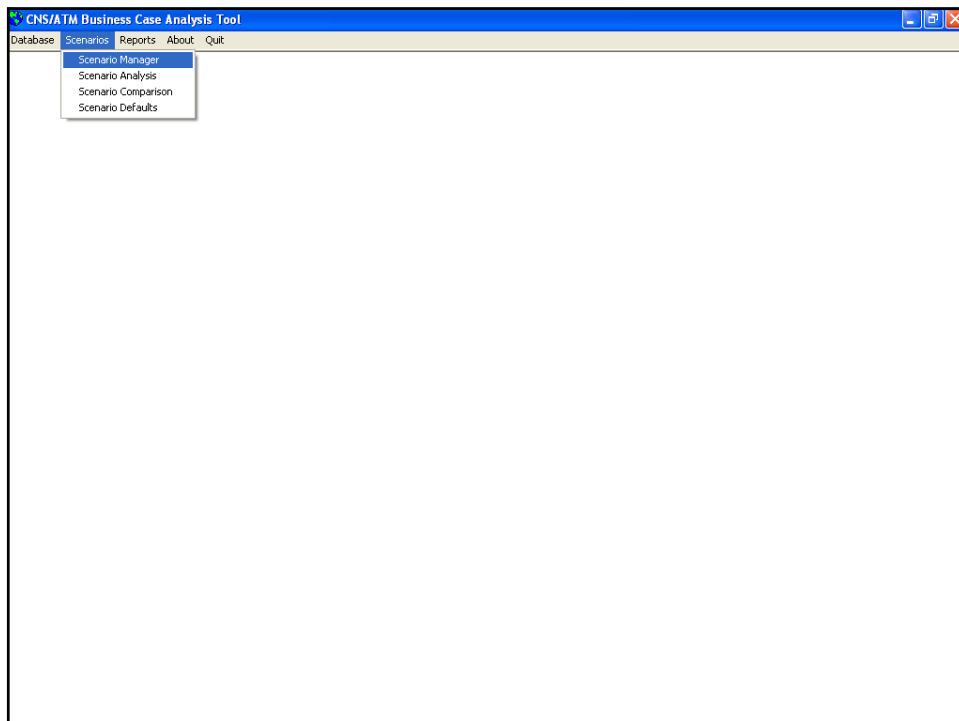
Equipment Type: VDR

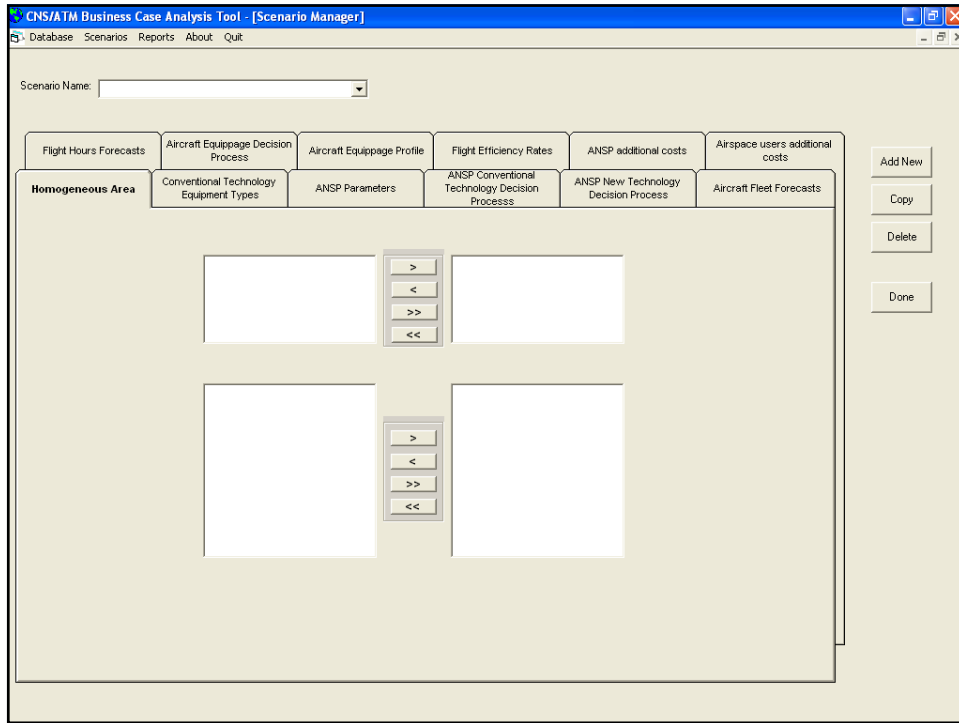
Equipment Model:

Installation Date: 1/01/93

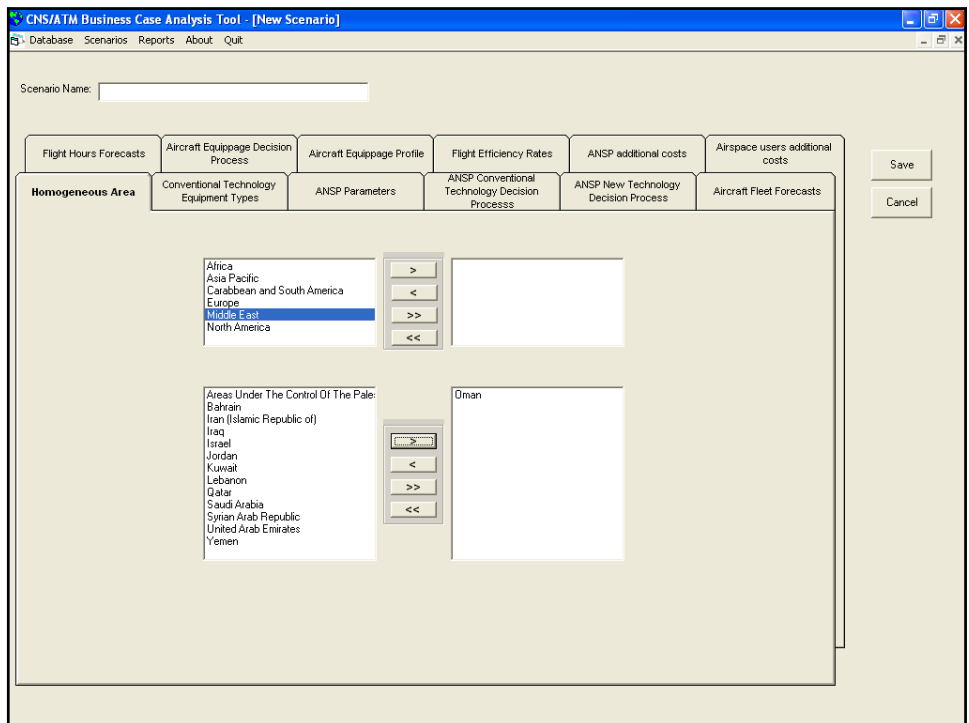
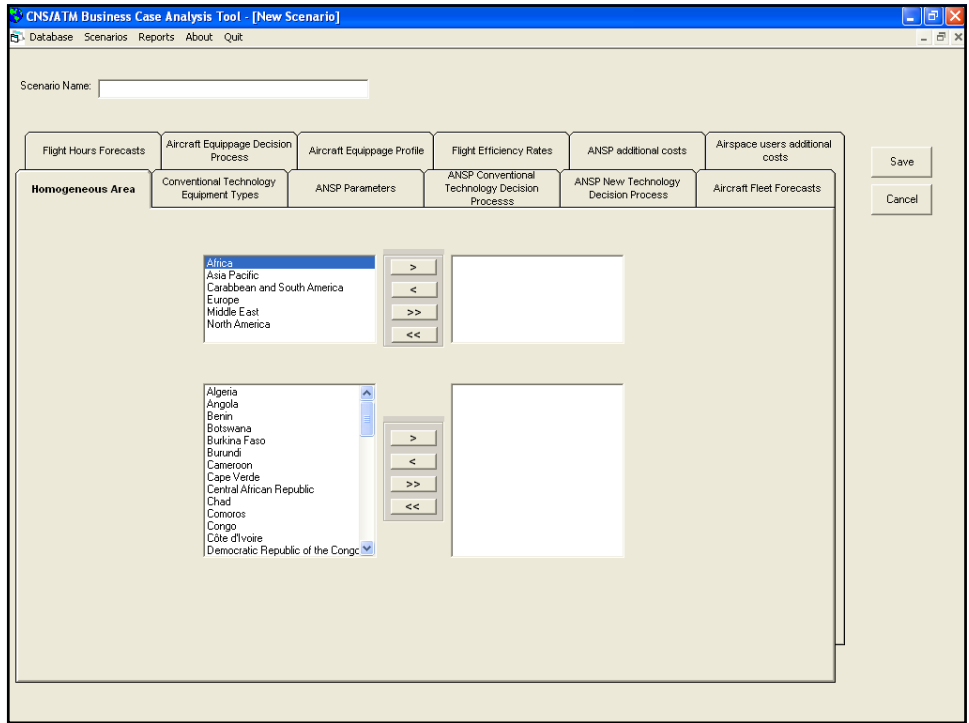


Paso 3 : Crear el escenario de implantación

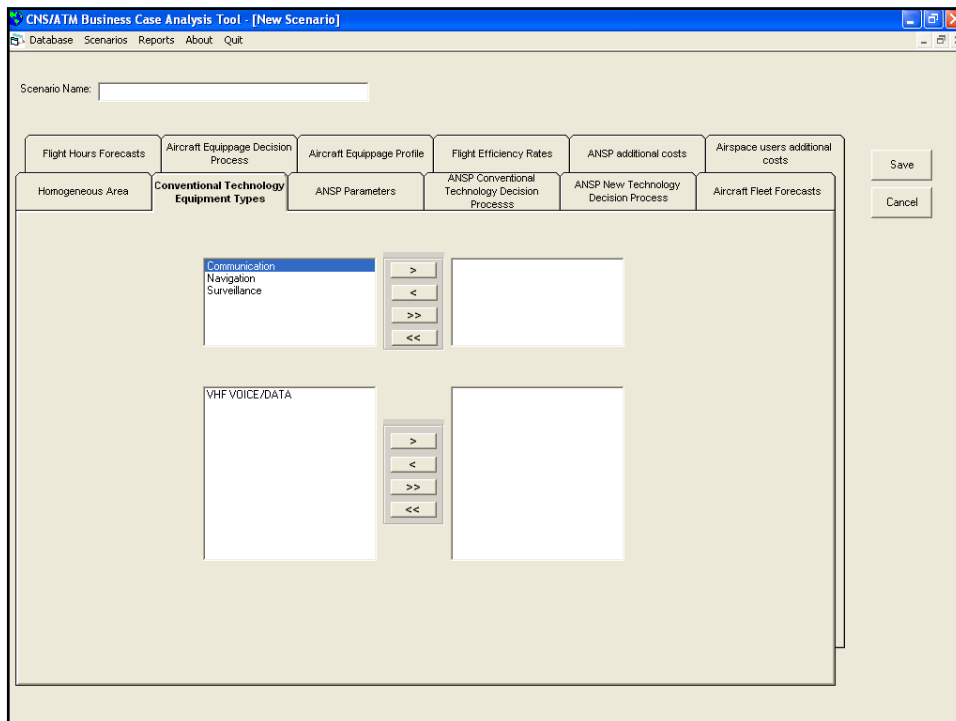


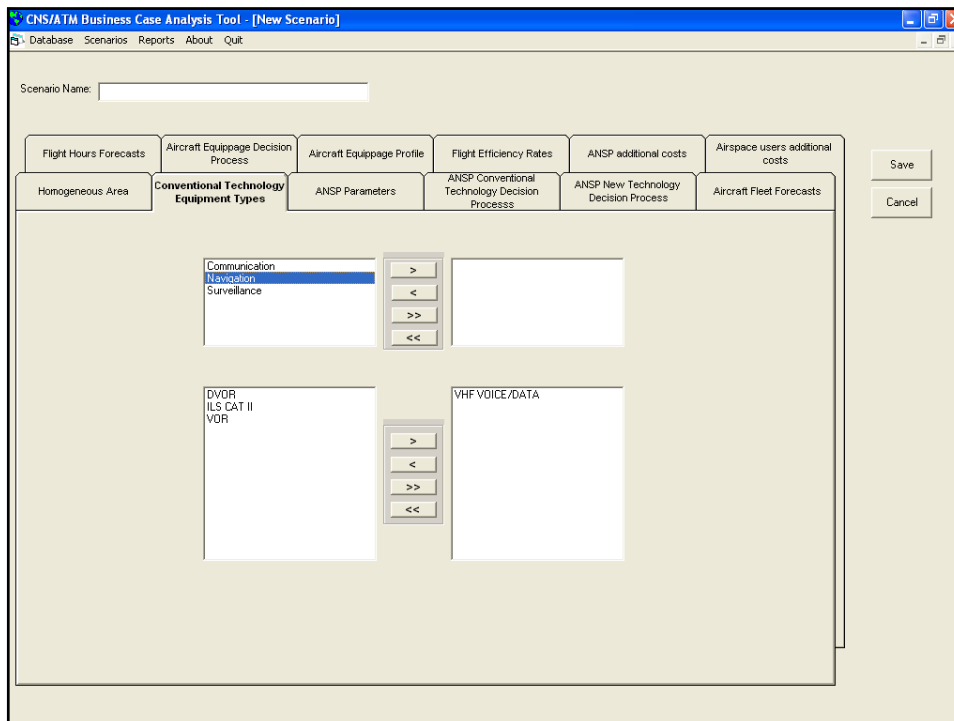
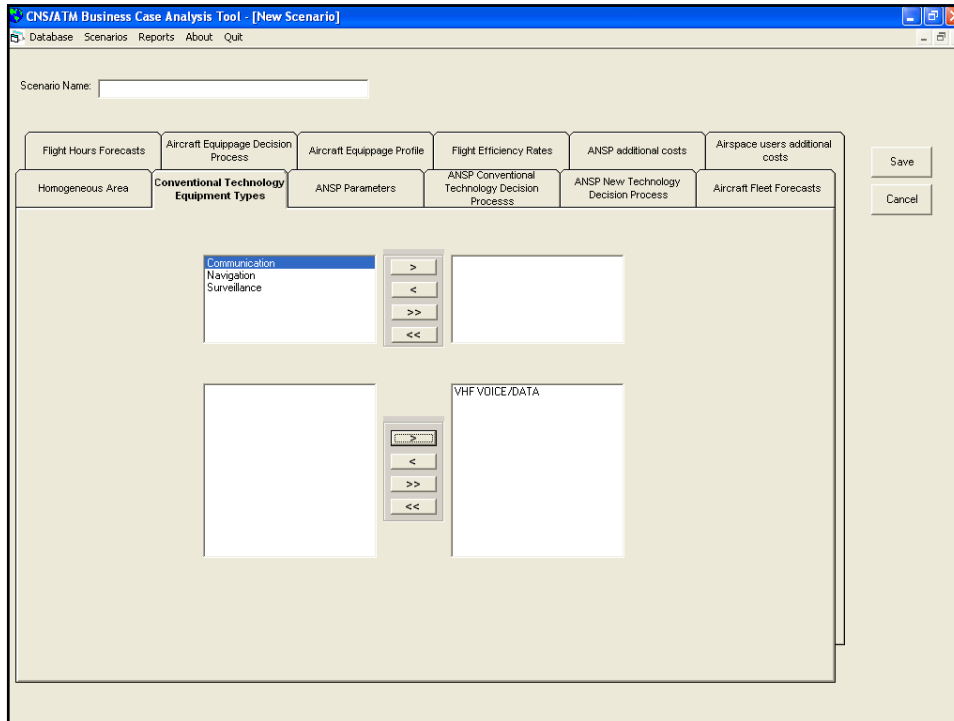


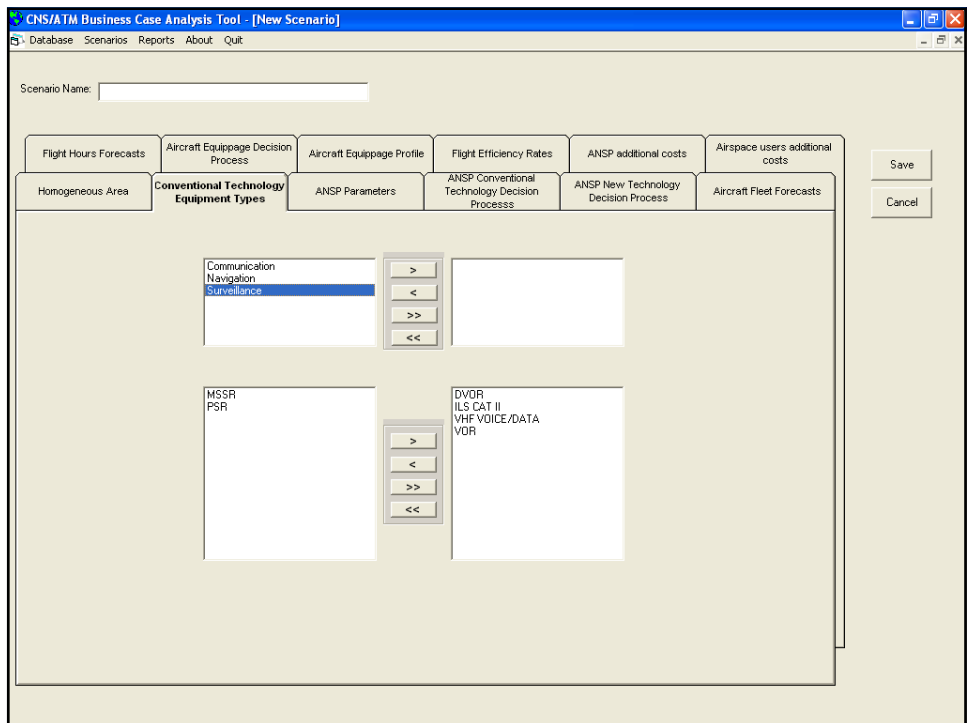
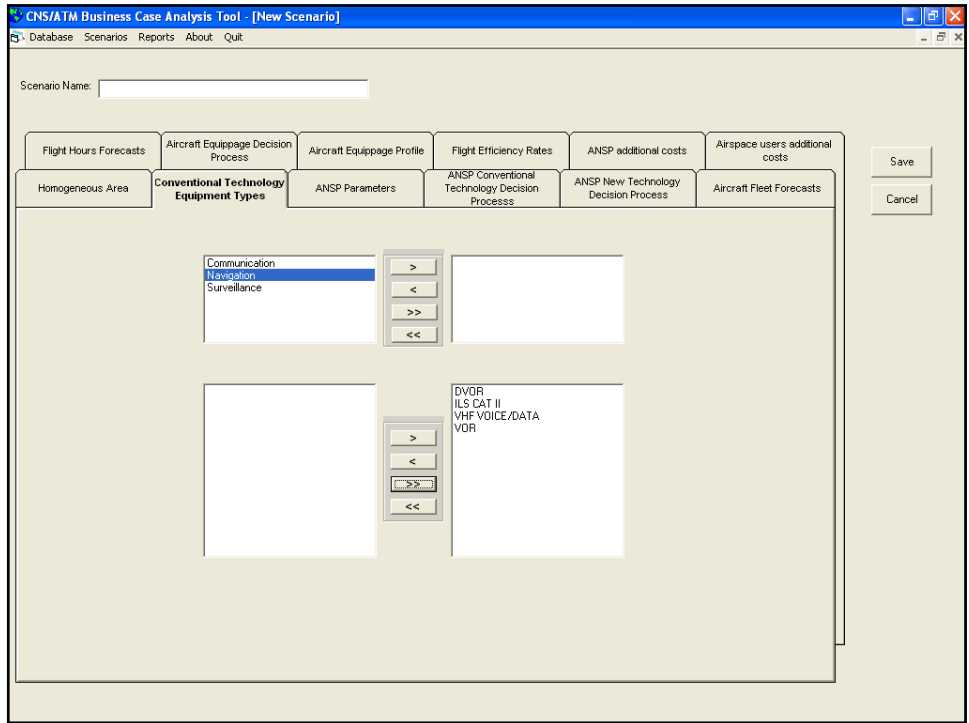
Paso 3/1 : Seleccionar el área homogénea
ATM

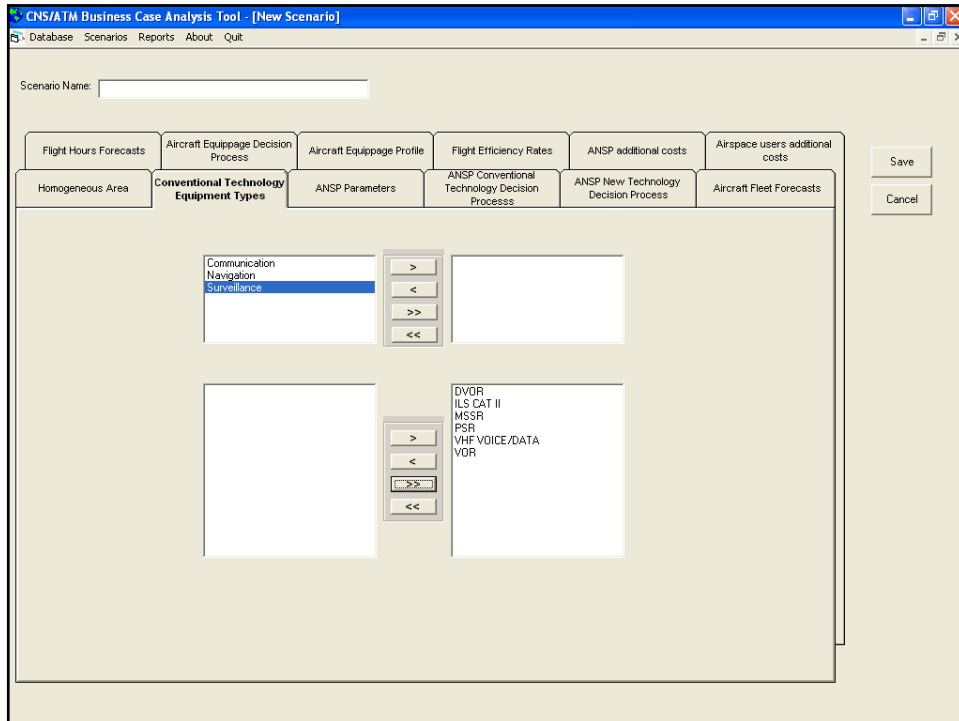


Paso 3/2 : Seleccionar los tipos de equipo con tecnología convencional









Paso 3/3 : Definir los parámetros del escenario

CNS/ATM Business Case Analysis Tool - [New Scenario]

Database Scenarios Reports About Quit

Scenario Name:

Flight Hours Forecasts Aircraft Equipage Decision Process Aircraft Equipage Profile Flight Efficiency Rates ANSP additional costs Airspace users additional costs

Homogeneous Area Conventional Technology Equipment Types **ANSP Parameters** ANSP Conventional Technology Decision Process ANSP New Technology Decision Process Aircraft Fleet Forecasts

Analysis Period

Start of Analysis Period 1 /01/06

End of Analysis Period 1 /01/25

CNS/ATM Operational Dates

Equipment Category	Operational Date
Communication	1/01/15
Navigation	1/01/15
Surveillance	1/01/15

Other parameters

Transition Period (Years) 10

Default Installation Date 1 /01/95

Default Life Cycle (Years) 10

Max. Stretching Period 10

Max. Refurbishment Period 10

Year switching Month 6

Cost Recovery

Start of Cost Recovery Period 1 /01/15

End of Cost Recovery Period 1 /01/25

Discount Rate (%) 10

Profit Margin (%) 10

ANSP Equipment Decommissioning cost

Consider decommissioning cost

ANSP Equipment Residual Values

Consider residual value at the end of the transition period to CNS/ATM

Consider residual value of conv. tech. at end of the analysis period

Consider residual value of new tech. at the end of the analysis period

Save

Cancel

Default Parameters

CNS/ATM Business Case Analysis Tool - [New Scenario]

Database Scenarios Reports About Quit

Scenario Name:

Flight Hours Forecasts Aircraft Equipage Decision Process Aircraft Equipage Profile Flight Efficiency Rates ANSP additional costs Airspace users additional costs

Homogeneous Area Conventional Technology Equipment Types **ANSP Parameters** ANSP Conventional Technology Decision Process ANSP New Technology Decision Process Aircraft Fleet Forecasts

Analysis Period

Start of Analysis Period 1 /01/06

End of Analysis Period 1 /01/25

CNS/ATM Operational Dates

Equipment Category	Operational Date
Communication	1/01/10
Navigation	1/01/10
Surveillance	1/01/10

Other parameters

Transition Period (Years) 5

Default Installation Date 1 /01/95

Default Life Cycle (Years) 10

Max. Stretching Period 3

Max. Refurbishment Period 5

Year switching Month 6

Cost Recovery

Start of Cost Recovery Period 1 /01/10

End of Cost Recovery Period 1 /01/25

Discount Rate (%) 8

Profit Margin (%) 5

ANSP Equipment Decommissioning cost

Consider decommissioning cost

ANSP Equipment Residual Values

Consider residual value at the end of the transition period to CNS/ATM

Consider residual value of conv. tech. at end of the analysis period

Consider residual value of new tech. at the end of the analysis period

Save

Cancel

Default Parameters

Paso 3/4 : Tomar decisiones en cuanto a los equipos con tecnología convencional

The screenshot shows the 'CNS/ATM Business Case Analysis Tool - [New Scenario]' window. The interface includes a menu bar (Database, Scenarios, Reports, About, Quit), a 'Scenario Name' input field, and several navigation tabs. The 'AISP Conventional Technology Decision Process' tab is active, displaying a table of equipment data. The table has columns for Location, ICAO Location Indicator, Type of Equipment, Installation Date, and Option. There are 6 rows of data, all with the option 'Do not include in the analysis'. Below the table is a dropdown menu and two buttons: 'Apply to all' and 'Apply to Selected'. On the right side of the window, there are 'Save' and 'Cancel' buttons.

Location	ICAO Location Indicator	Type of Equipment	Installation Date	Option
MUSCAT/SEEB INTL.	OOMS	VOR	1/01/83	Do not include in the analysis
MUSCAT/SEEB INTL.	OOMS	VHF VOICEDATA	1/01/86	Do not include in the analysis
MUSCAT/SEEB INTL.	OOMS	ILS CAT II	1/01/83	Do not include in the analysis
MUSCAT/SEEB INTL.	OOMS	PSR	1/01/85	Do not include in the analysis
MUSCAT/SEEB INTL.	OOMS	MSSR	1/01/85	Do not include in the analysis
MUSCAT/SEEB INTL.	OOMS	DVOR	1/01/85	Do not include in the analysis

CNS/ATM Business Case Analysis Tool - [New Scenario]

Database Scenarios Reports About Quit

Scenario Name:

Flight Hours Forecasts Aircraft Equipage Decision Process Aircraft Equipage Profile Flight Efficiency Rates ANSP additional costs Airspace users additional costs

Homogeneous Area Conventional Technology Equipment Types ANSP Parameters **ANSP Conventional Technology Decision Process** ANSP New Technology Decision Process Aircraft Fleet Forecasts

Total Number: 6

Location	ICAO Location Indicator	Type of Equipment	Installation Date	Option
MUSCAT/SEEB INTL.	OOMS	VOR	1/01/93	Keep until the end of the transition period
MUSCAT/SEEB INTL.	OOMS	VHF VOICEDATA	1/01/86	Replace at the end of each life cycle
MUSCAT/SEEB INTL.	OOMS	ILS CAT II	1/01/93	Do not include in the analysis
MUSCAT/SEEB INTL.	OOMS	PSR	1/01/85	Do not replace at the end of life cycle
MUSCAT/SEEB INTL.	OOMS	MSSR	1/01/85	Do not include in the analysis
MUSCAT/SEEB INTL.	OOMS	DVOR	1/01/85	Do not include in the analysis

Apply to all Apply to Selected

Save Cancel

CNS/ATM Business Case Analysis Tool - [New Scenario]

Database Scenarios Reports About Quit

Scenario Name:

Flight Hours Forecasts Aircraft Equipage Decision Process Aircraft Equipage Profile Flight Efficiency Rates ANSP additional costs Airspace users additional costs

Homogeneous Area Conventional Technology Equipment Types ANSP Parameters **ANSP Conventional Technology Decision Process** ANSP New Technology Decision Process Aircraft Fleet Forecasts

Total Number: 6

Location	ICAO Location Indicator	Type of Equipment	Installation Date	Option
MUSCAT/SEEB INTL.	OOMS	VOR	1/01/93	Keep until the end of the transition period
MUSCAT/SEEB INTL.	OOMS	VHF VOICEDATA	1/01/86	Keep until the end of the transition period
MUSCAT/SEEB INTL.	OOMS	ILS CAT II	1/01/93	Keep until the end of the transition period
MUSCAT/SEEB INTL.	OOMS	PSR	1/01/85	Keep until the end of the transition period
MUSCAT/SEEB INTL.	OOMS	MSSR	1/01/85	Keep until the end of the transition period
MUSCAT/SEEB INTL.	OOMS	DVOR	1/01/85	Keep until the end of the transition period

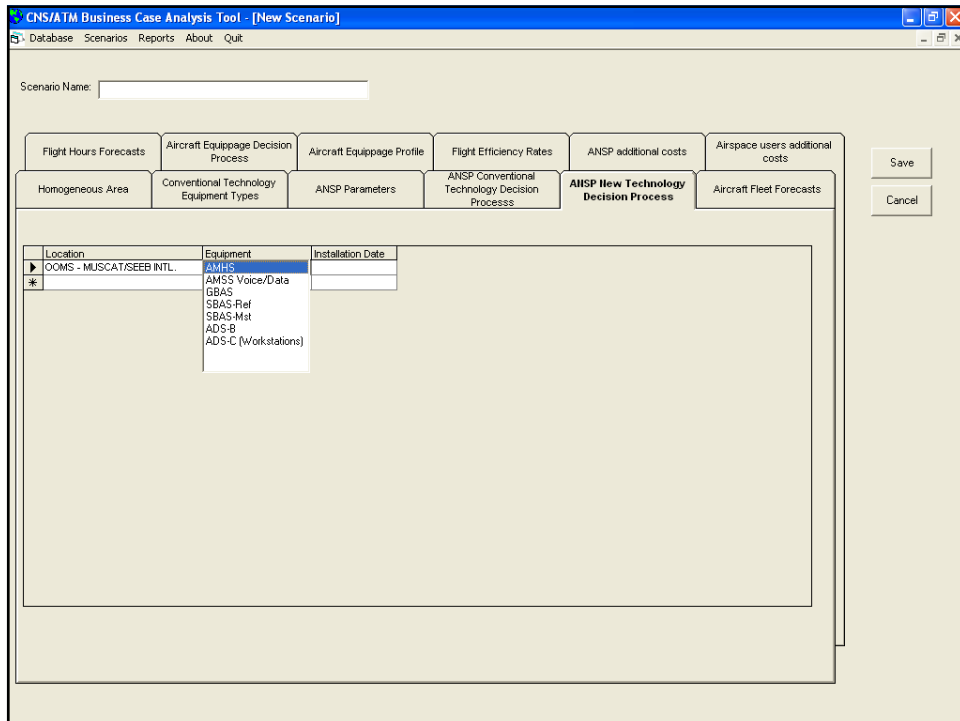
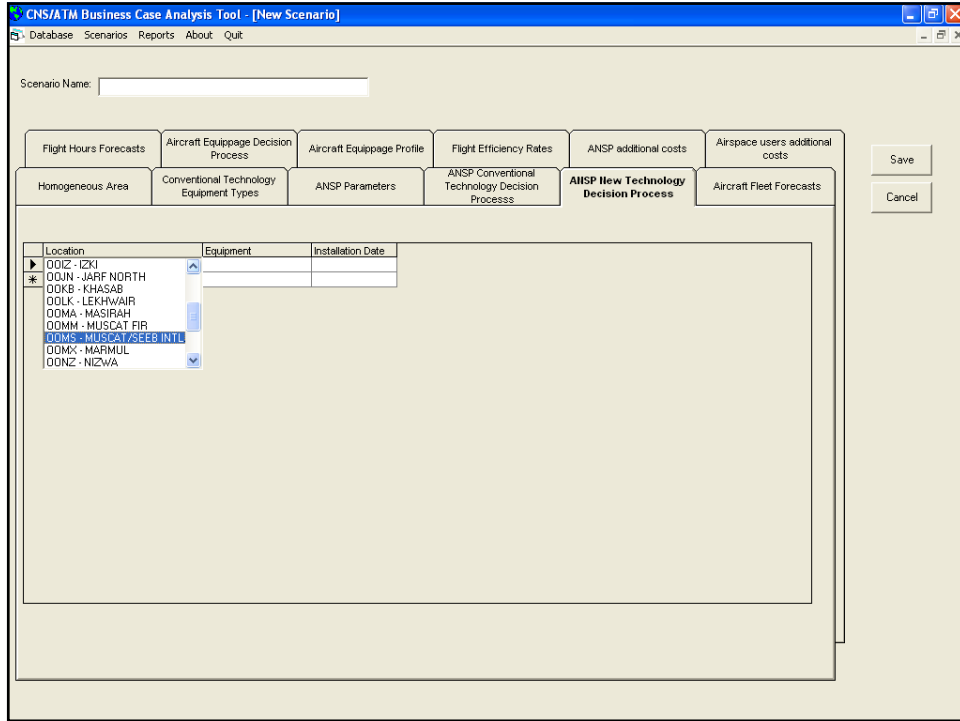
Apply to all Apply to Selected

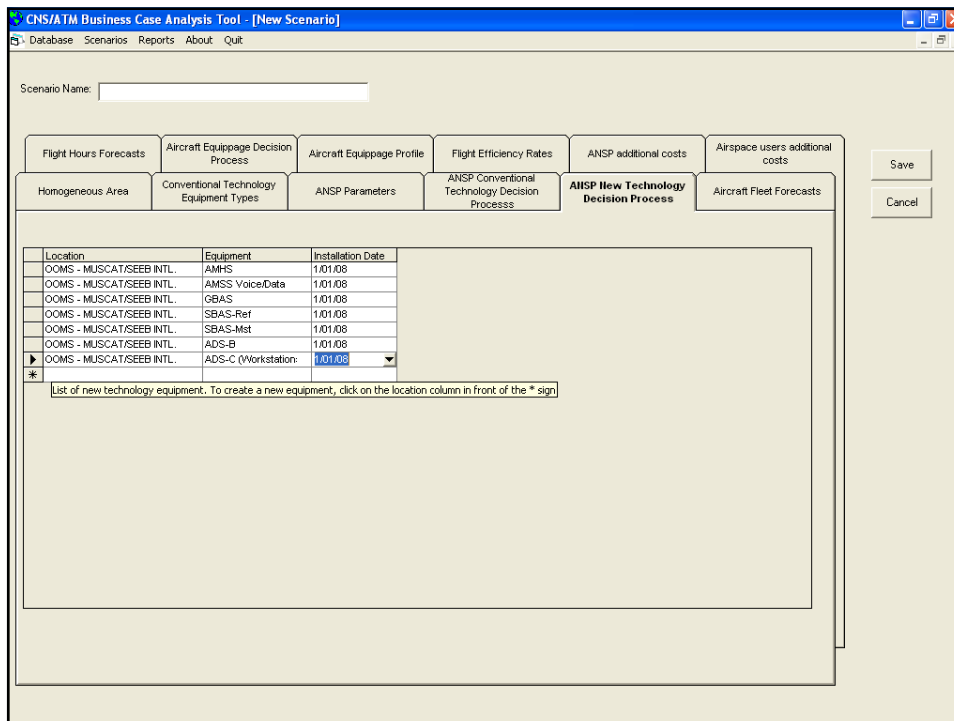
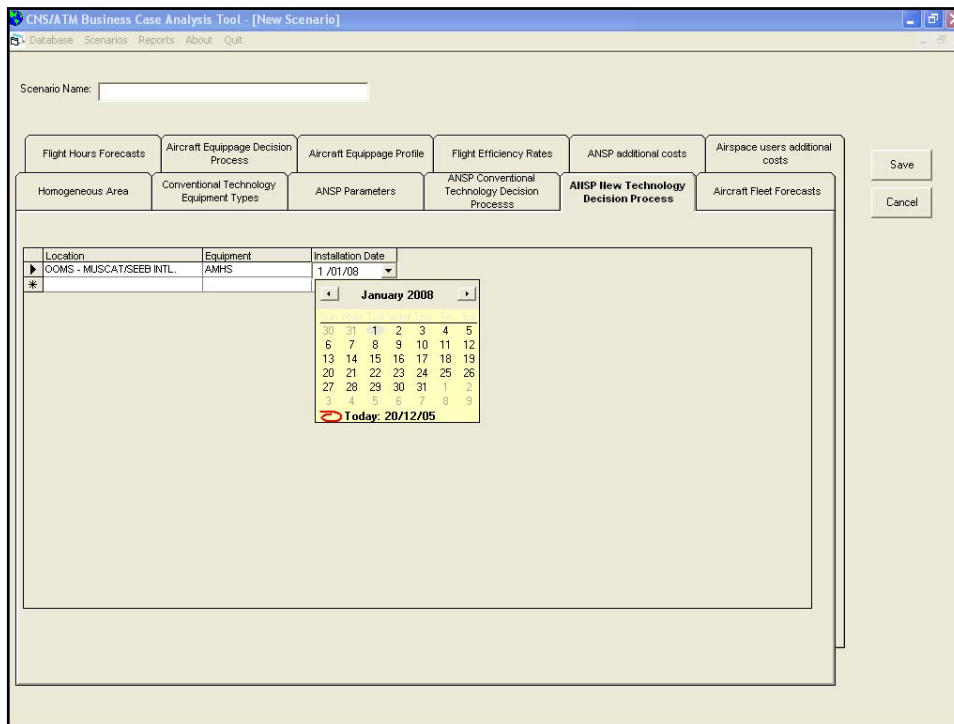
Save Cancel

Paso 3/5 : Tomar decisiones en cuanto a los equipos con nueva tecnología

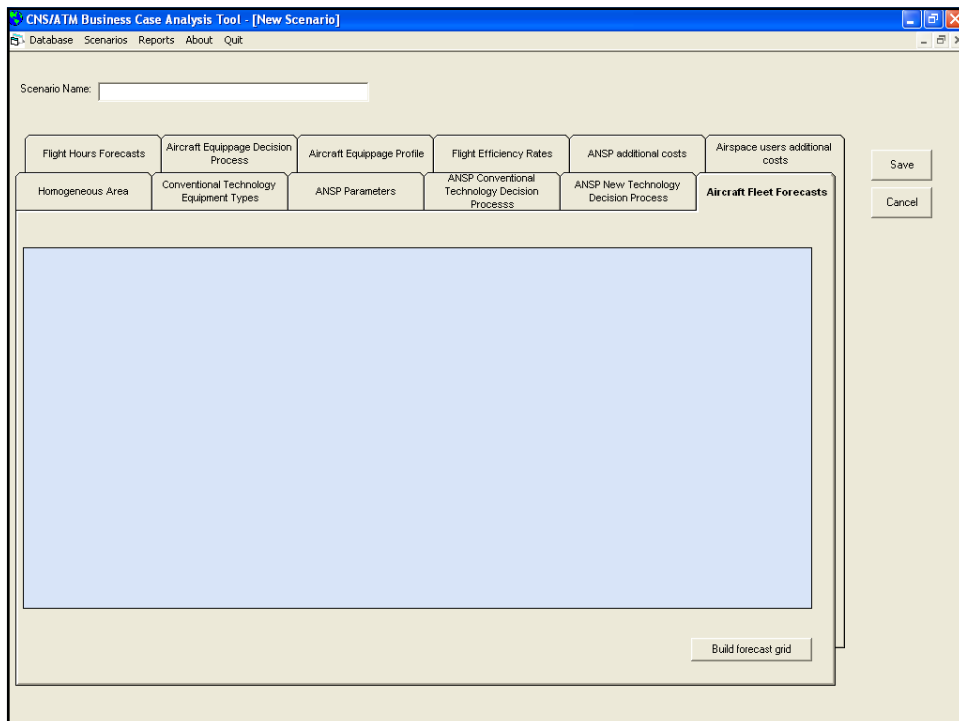
The screenshot shows the 'CNS/ATM Business Case Analysis Tool - [New Scenario]' window. The interface includes a menu bar with 'Database', 'Scenarios', 'Reports', 'About', and 'Quit'. Below the menu is a 'Scenario Name:' text box. A central area contains several tabs: 'Flight Hours Forecasts', 'Aircraft Equipage Decision Process', 'Aircraft Equipage Profile', 'Flight Efficiency Rates', 'ANSP additional costs', 'Airspace users additional costs', 'Homogeneous Area', 'Conventional Technology Equipment Types', 'ANSP Parameters', 'ANSP Conventional Technology Decision Process', 'ANSP New Technology Decision Process' (which is selected), and 'Aircraft Fleet Forecasts'. To the right of these tabs are 'Save' and 'Cancel' buttons. At the bottom, there is a table with the following structure:

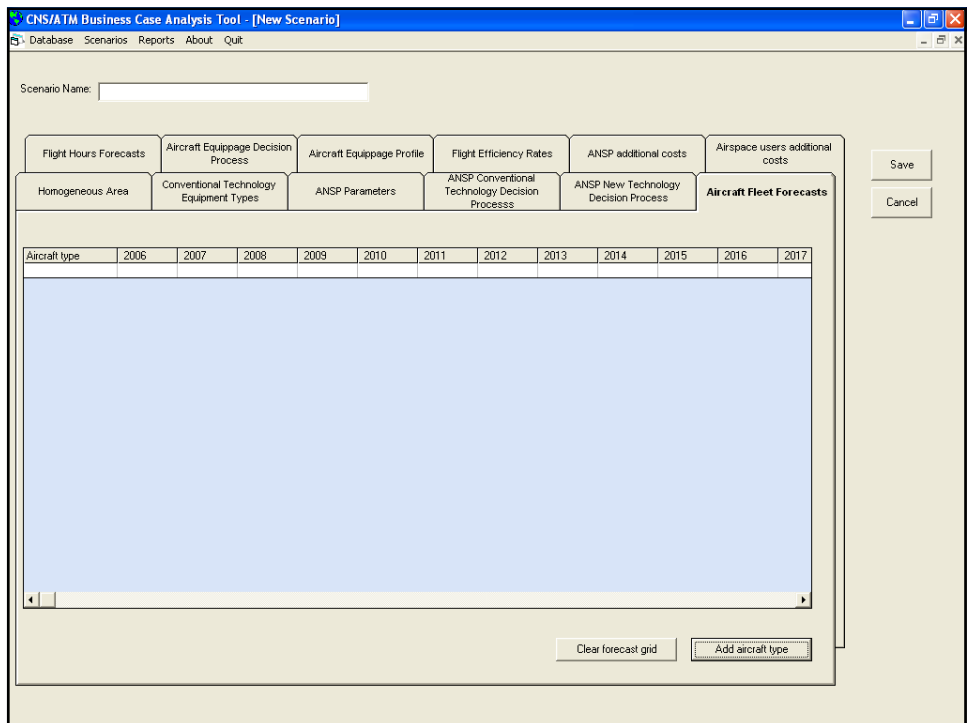
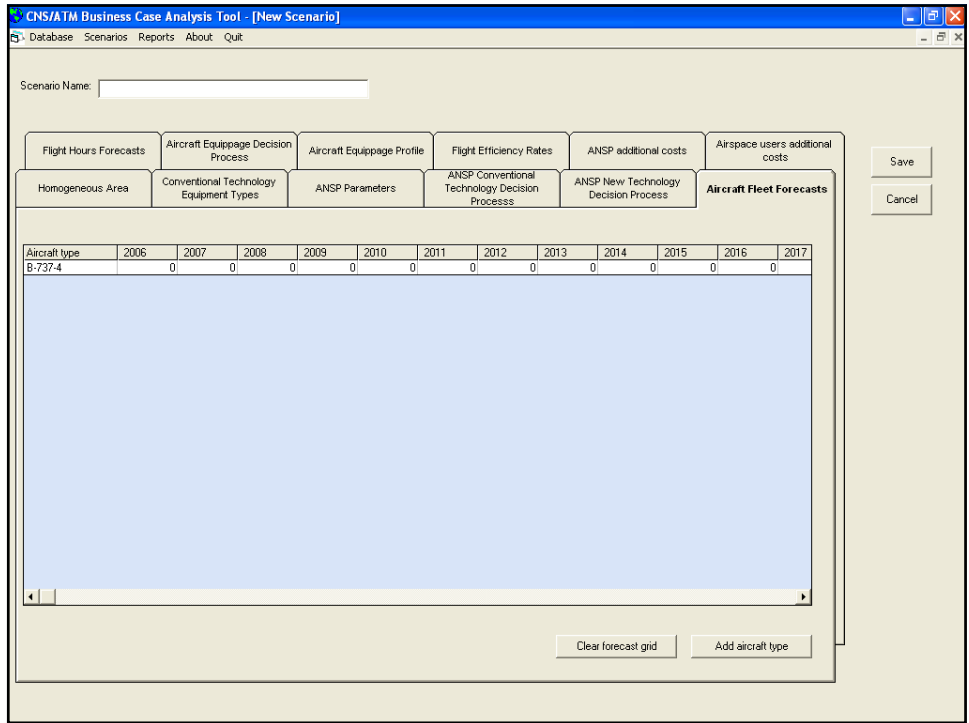
Location	Equipment	Installation Date
▶		
*		





Paso 3/6 : Agregar los pronósticos sobre la flota y las horas de vuelo





CNS/ATM Business Case Analysis Tool - [New Scenario]

Database Scenarios Reports About Quit

Scenario Name:

Flight Hours Forecasts Aircraft Equipage Decision Process Aircraft Equipage Profile Flight Efficiency Rates ANSP additional costs Airspace users additional costs

Homogeneous Area Conventional Technology Equipment Types ANSP Parameters ANSP Conventional Technology Decision Process ANSP New Technology Decision Process Aircraft Fleet Forecasts

Aircraft type	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
B-737-4	45	47	48	49	51	52	54	56	57	59	61	

Clear forecast grid Add aircraft type

Save Cancel

CNS/ATM Business Case Analysis Tool - [New Scenario]

Database Scenarios Reports About Quit

Scenario Name:

Flight Hours Forecasts Aircraft Equipage Decision Process Aircraft Equipage Profile Flight Efficiency Rates ANSP additional costs Airspace users additional costs

Homogeneous Area Conventional Technology Equipment Types ANSP Parameters ANSP Conventional Technology Decision Process ANSP New Technology Decision Process Aircraft Fleet Forecasts

Aircraft type	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
B-737-4	45	47	48	49	51	52	54	56	57	59	61	
DC-9-50	0	0	0	0	0	0	0	0	0	0	0	0

Clear forecast grid Add aircraft type

Save Cancel

CNS/ATM Business Case Analysis Tool - [New Scenario]

Database Scenarios Reports About Quit

Scenario Name:

Flight Hours Forecasts Aircraft Equipage Decision Process Aircraft Equipage Profile Flight Efficiency Rates ANSP additional costs Airspace users additional costs

Homogeneous Area Conventional Technology Equipment Types ANSP Parameters ANSP Conventional Technology Decision Process ANSP New Technology Decision Process Aircraft Fleet Forecasts

Aircraft type	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
B-737-4	45	47	48	49	51	52	54	56	57	59	61	
DC-9-50	3	3	3	3	3	3	3	3	3	3	3	

Clear forecast grid Add aircraft type

CNS/ATM Business Case Analysis Tool - [New Scenario]

Database Scenarios Reports About Quit

Scenario Name:

Flight Hours Forecasts Aircraft Equipage Decision Process Aircraft Equipage Profile Flight Efficiency Rates ANSP additional costs Airspace users additional costs

Homogeneous Area Conventional Technology Equipment Types ANSP Parameters ANSP Conventional Technology Decision Process ANSP New Technology Decision Process Aircraft Fleet Forecasts

Aircraft type	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
A320	56	57	59	61	63	64	66	68	70	73	75	
A310	50	51	53	54	56	58	59	61	63	65	67	
C130	23	24	25	25	26	27	28	29	29	30	31	
A340	21	21	22	23	23	24	25	26	26	27	28	
K35R	6	6	6	6	7	7	7	7	8	8	8	
B-757	6	6	6	6	6	7	7	7	7	7	8	
IL78	6	6	6	6	6	7	7	7	7	7	7	
C17	4	5	5	5	5	5	5	5	6	6	6	
AN12	4	4	4	4	5	5	5	5	5	5	5	
AN24	4	4	4	4	5	5	5	5	5	5	5	
SH7	4	4	4	4	4	5	5	5	5	5	5	
T154	4	4	4	4	4	4	5	5	5	5	5	
BA11	3	3	3	3	3	3	3	3	4	4	4	
IL76	2	2	3	3	3	3	3	3	3	3	3	
GLF4	2	2	2	3	3	3	3	3	3	3	3	
C135	2	2	2	2	2	2	2	3	3	3	3	
P3	2	2	2	2	2	2	2	2	3	3	3	
UH1	2	2	2	2	2	2	2	2	2	2	3	
NIM	2	2	2	2	2	2	2	2	2	2	2	
B707	2	2	2	2	2	2	2	2	2	2	2	
OTHERS	27	28	28	29	29	30	30	31	32	32	33	

Clear forecast grid Add aircraft type

CNS/ATM Business Case Analysis Tool - [New Scenario]

Database Scenarios Reports About Quit

Scenario Name:

Homogeneous Area	Conventional Technology Equipment Types	ANSP Parameters	ANSP Conventional Technology Decision Process	ANSP New Technology Decision Process	Aircraft Fleet Forecasts							
Flight Hours Forecasts	Aircraft Equipage Decision Process	Aircraft Equipage Profile	Flight Efficiency Rates	ANSP additional costs	Airspace users additional costs							
Aircraft type	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	20
B-737-4	0	0	0	0	0	0	0	0	0	0	0	0
DC-9-50	0	0	0	0	0	0	0	0	0	0	0	0
A300-600	0	0	0	0	0	0	0	0	0	0	0	0
B-767-3/ER	0	0	0	0	0	0	0	0	0	0	0	0
B-777	0	0	0	0	0	0	0	0	0	0	0	0
B-727-2	0	0	0	0	0	0	0	0	0	0	0	0
DC-10-4	0	0	0	0	0	0	0	0	0	0	0	0
MD-11	0	0	0	0	0	0	0	0	0	0	0	0
B-747-4	0	0	0	0	0	0	0	0	0	0	0	0
ATR-42	0	0	0	0	0	0	0	0	0	0	0	0
A330	0	0	0	0	0	0	0	0	0	0	0	0
A320	0	0	0	0	0	0	0	0	0	0	0	0
A310	0	0	0	0	0	0	0	0	0	0	0	0
C130	0	0	0	0	0	0	0	0	0	0	0	0
A340	0	0	0	0	0	0	0	0	0	0	0	0
K35R	0	0	0	0	0	0	0	0	0	0	0	0
B-757	0	0	0	0	0	0	0	0	0	0	0	0
IL18	0	0	0	0	0	0	0	0	0	0	0	0
C17	0	0	0	0	0	0	0	0	0	0	0	0
AN12	0	0	0	0	0	0	0	0	0	0	0	0
AN24	0	0	0	0	0	0	0	0	0	0	0	0
SH7	0	0	0	0	0	0	0	0	0	0	0	0

Save
Cancel

CNS/ATM Business Case Analysis Tool - [Scenario Manager]

Database Scenarios Reports About Quit

Scenario Name:

Homogeneous Area	Conventional Technology Equipment Types	ANSP Parameters	ANSP Conventional Technology Decision Process	ANSP New Technology Decision Process	Aircraft Fleet Forecasts							
Flight Hours Forecasts	Aircraft Equipage Decision Process	Aircraft Equipage Profile	Flight Efficiency Rates	ANSP additional costs	Airspace users additional costs							
Aircraft Type	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	20
B-737-4	32992	33381	35000	36051	37132	38245	39395	40576	41792	43045	44339	45
B-757	4152	4277	4405	4539	4675	4813	4957	5106	5260	5419	5580	57
DC-9-50	1898	1947	2004	2064	2125	2189	2256	2323	2392	2464	2539	26
A-300-600	23496	24203	24928	25676	26445	27237	28056	28899	29764	30659	31579	32
B-767-3/ER	30917	31844	32800	33784	34797	35843	36916	38024	39165	40340	41549	42
B-777	34290	35317	36379	37469	38595	39752	40944	42172	43437	44740	46083	47
B-727-2	1512	1556	1604	1652	1701	1752	1804	1859	1915	1972	2032	20
DC-10-4	6308	6496	6692	6892	7100	7312	7532	7757	7989	8229	10476	87
MD-11	6941	7149	7364	7587	7813	8048	8298	8539	8795	9059	9331	96
B-747-4	58731	60492	62308	64176	66101	68094	70128	72232	74397	76629	78931	81
OTHERS	19765	20160	20564	20976	21395	21821	22260	22704	23157	23621	24093	24
A330	49659	51146	52683	54261	55891	57565	59283	61072	62904	64792	66733	68
A320	40603	41820	43075	44365	45699	47068	48480	49936	51436	52976	54565	56
A310	36221	37309	38428	39581	40768	41992	43252	44549	45885	47261	48680	50
C130	16357	17467	17989	18531	19085	19659	20248	20856	21483	22125	22789	23
A340	15195	15651	16117	16603	17100	17613	18141	18685	19245	19824	20419	21
K35R	4340	4469	4604	4741	4884	5032	5181	5339	5499	5661	5826	60
IL18	4059	4180	4304	4435	4565	4704	4845	4989	5140	5293	5453	56
C17	3189	3285	3384	3485	3589	3699	3808	3923	4040	4163	4285	44
AN12	2965	3053	3147	3240	3339	3437	3540	3645	3756	3868	3984	41
AN24	2955	3043	3133	3228	3324	3424	3525	3632	3741	3853	3971	40
SH7	2900	2988	3076	3171	3264	3363	3464	3568	3675	3784	3899	40

Save
Cancel

Paso 3/7 : Tomar decisiones en cuanto al equipamiento de las aeronaves y las tasas de eficiencia

CNS/ATM Business Case Analysis Tool - [New Scenario]

Database Scenarios Reports About Quit

Scenario Name:

Homogeneous Area Conventional Technology Equipment Types ANSP Parameters ANSP Conventional Technology Decision Process ANSP New Technology Decision Process Aircraft Fleet Forecasts

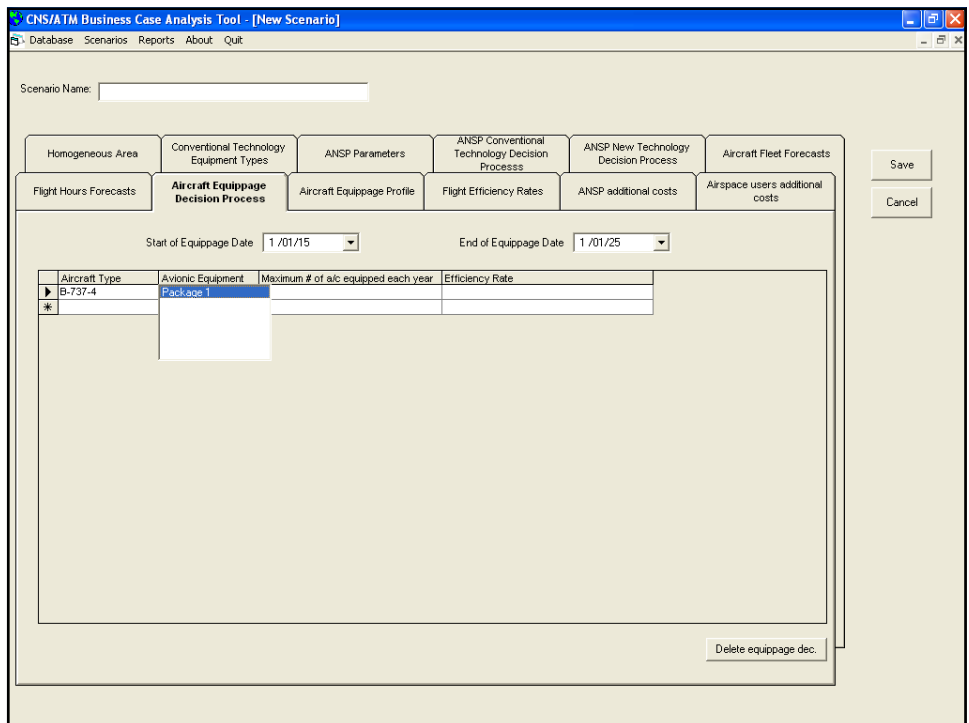
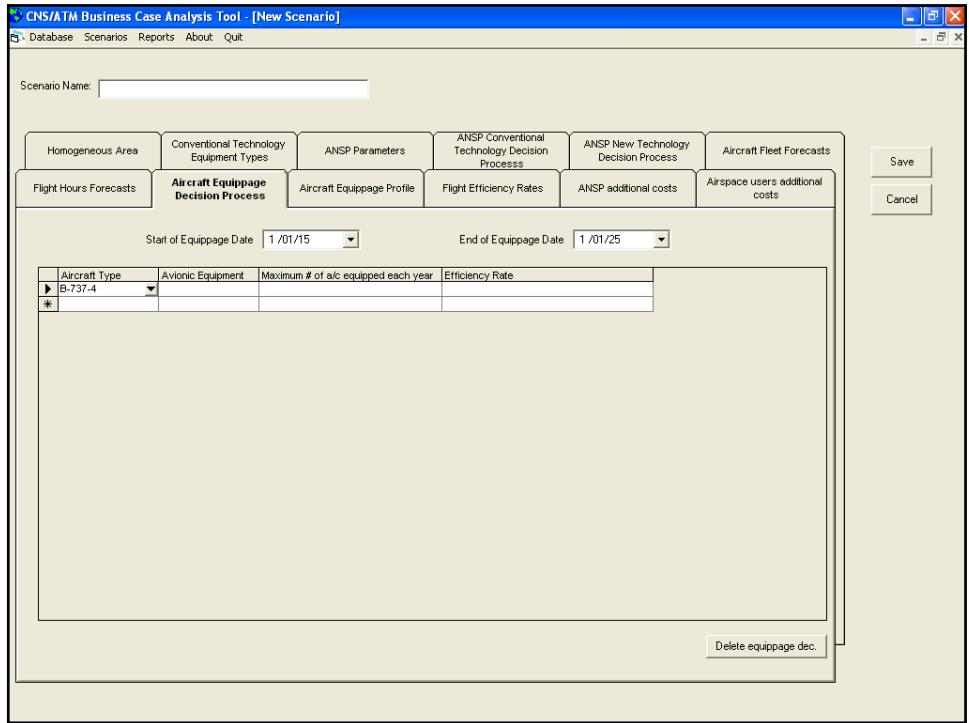
Flight Hours Forecasts **Aircraft Equipage Decision Process** Aircraft Equipage Profile Flight Efficiency Rates ANSP additional costs Airspace users additional costs

Start of Equipage Date: 1 /01/15 End of Equipage Date: 1 /01/25

Aircraft Type	Avionic Equipment	Maximum # of a/c equipped each year	Efficiency Rate
▶	▼		
*			

The end of the implementation period proportion of each aircraft type equipped with a given avionic is set by the user. Choose aircraft type and avionic and set maximum proportion.

Delete equipage dec.



CNS/ATM Business Case Analysis Tool - [New Scenario]

Database Scenarios Reports About Quit

Scenario Name:

Homogeneous Area Conventional Technology Equipment Types ANSP Parameters ANSP Conventional Technology Decision Process ANSP New Technology Decision Process Aircraft Fleet Forecasts

Flight Hours Forecasts **Aircraft Equipage Decision Process** Aircraft Equipage Profile Flight Efficiency Rates ANSP additional costs Airspace users additional costs

Start of Equipage Date 1 /01/15 End of Equipage Date 1 /01/25

Aircraft Type	Avionic Equipment Package	Maximum # of a/c equipped each year	Efficiency Rate
B-737-4	Package 1		
*			

Delete equipage dec.

Save Cancel

CNS/ATM Business Case Analysis Tool - [New Scenario]

Database Scenarios Reports About Quit

Scenario Name:

Homogeneous Area Conventional Technology Equipment Types ANSP Parameters ANSP Conventional Technology Decision Process ANSP New Technology Decision Process Aircraft Fleet Forecasts

Flight Hours Forecasts **Aircraft Equipage Decision Process** Aircraft Equipage Profile Flight Efficiency Rates ANSP additional costs Airspace users additional costs

Start of Equipage Date 1 /01/15 End of Equipage Date 1 /01/25

Aircraft Type	Avionic Equipment Package	Maximum # of a/c equipped each year	Efficiency Rate
B-737-4	Package 1	7	
*			

Delete equipage dec.

Save Cancel Minimize

CNS/ATM Business Case Analysis Tool - [New Scenario]

Database Scenarios Reports About Quit

Scenario Name:

Homogeneous Area Conventional Technology Equipment Types ANSP Parameters ANSP Conventional Technology Decision Process ANSP New Technology Decision Process Aircraft Fleet Forecasts

Flight Hours Forecasts **Aircraft Equipage Decision Process** Aircraft Equipage Profile Flight Efficiency Rates ANSP additional costs Airspace users additional costs

Start of Equipage Date: 1 /01/15 End of Equipage Date: 1 /01/25

Aircraft Type	Avionic Equipment	Maximum # of a/c equipped each year	Efficiency Rate
B-737-4	Package 1	7	7
*			

Delete equipage dec.

CNS/ATM Business Case Analysis Tool - [New Scenario]

Database Scenarios Reports About Quit

Scenario Name:

Homogeneous Area Conventional Technology Equipment Types ANSP Parameters ANSP Conventional Technology Decision Process ANSP New Technology Decision Process Aircraft Fleet Forecasts

Flight Hours Forecasts **Aircraft Equipage Decision Process** Aircraft Equipage Profile Flight Efficiency Rates ANSP additional costs Airspace users additional costs

Start of Equipage Date: 1 /01/15 End of Equipage Date: 1 /01/25

Aircraft Type	Avionic Equipment	Maximum # of a/c equipped each year	Efficiency Rate
B-737-4	Package 1	7	7
DC-9-50	Package 1	0	0
A300-600	Package 1	3	7
B-767-3ER	Package 1	3	7
B-777	Package 1	5	7
B-727-2	Package 1	1	7
DC-10-4	Package 1	2	7
MD-11	Package 1	3	7
B-747-4	Package 1	10	7
ATR-42	Package 1	2	7
A330	Package 1	6	7
A320	Package 1	10	7
A310	Package 1	5	7
C130	Package 1	2	7
A340	Package 1	4	7
K35R	Package 1	1	7
B-757	Package 1	1	7
IL18	Package 1	2	7
C17	Package 1	2	7
AN12	Package 1	1	7
AN24	Package 1	1	7
SH7	Package 1	2	7
Tr44	Package 1	4	7

Delete equipage dec.

CNS/ATM Business Case Analysis Tool - [New Scenario]

Database Scenarios Reports About Quit

Scenario Name:

Homogeneous Area Conventional Technology Equipment Types ANSP Parameters ANSP Conventional Technology Decision Process ANSP New Technology Decision Process Aircraft Fleet Forecasts

Flight Hours Forecasts Aircraft Equipage Decision Process **Aircraft Equipage Profile** Flight Efficiency Rates ANSP additional costs Airspace users additional costs

Save

Cancel

Aircraft Type	Avionic	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
B-737-4	Package 1	0	0	0	0	0	0	0	0	0	0	7
DC-9-50	Package 1	0	0	0	0	0	0	0	0	0	0	0
A300-600	Package 1	0	0	0	0	0	0	0	0	0	0	3
B-767-3/ER	Package 1	0	0	0	0	0	0	0	0	0	0	3
B-777	Package 1	0	0	0	0	0	0	0	0	0	0	5
B-727-2	Package 1	0	0	0	0	0	0	0	0	0	0	1
DC-10-4	Package 1	0	0	0	0	0	0	0	0	0	0	2
MD-11	Package 1	0	0	0	0	0	0	0	0	0	0	3
B-747-4	Package 1	0	0	0	0	0	0	0	0	0	0	10
ATR-42	Package 1	0	0	0	0	0	0	0	0	0	0	2
A330	Package 1	0	0	0	0	0	0	0	0	0	0	6
A320	Package 1	0	0	0	0	0	0	0	0	0	0	10
A310	Package 1	0	0	0	0	0	0	0	0	0	0	5
C130	Package 1	0	0	0	0	0	0	0	0	0	0	2
A340	Package 1	0	0	0	0	0	0	0	0	0	0	4
K35R	Package 1	0	0	0	0	0	0	0	0	0	0	1
B-757	Package 1	0	0	0	0	0	0	0	0	0	0	1
IL18	Package 1	0	0	0	0	0	0	0	0	0	0	2
C17	Package 1	0	0	0	0	0	0	0	0	0	0	2
AN12	Package 1	0	0	0	0	0	0	0	0	0	0	1
AN24	Package 1	0	0	0	0	0	0	0	0	0	0	1
SH7	Package 1	0	0	0	0	0	0	0	0	0	0	2

CNS/ATM Business Case Analysis Tool - [New Scenario]

Database Scenarios Reports About Quit

Scenario Name:

Homogeneous Area Conventional Technology Equipment Types ANSP Parameters ANSP Conventional Technology Decision Process ANSP New Technology Decision Process Aircraft Fleet Forecasts

Flight Hours Forecasts Aircraft Equipage Decision Process Aircraft Equipage Profile **Flight Efficiency Rates** ANSP additional costs Airspace users additional costs

Save

Cancel

Aircraft Type	Avionic	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
B-737-4	Package 1	0	0	0	0	0	0	0	0	0	0	7
DC-9-50	Package 1	0	0	0	0	0	0	0	0	0	0	0
A300-600	Package 1	0	0	0	0	0	0	0	0	0	0	7
B-767-3/ER	Package 1	0	0	0	0	0	0	0	0	0	0	7
B-777	Package 1	0	0	0	0	0	0	0	0	0	0	7
B-727-2	Package 1	0	0	0	0	0	0	0	0	0	0	7
DC-10-4	Package 1	0	0	0	0	0	0	0	0	0	0	7
MD-11	Package 1	0	0	0	0	0	0	0	0	0	0	7
B-747-4	Package 1	0	0	0	0	0	0	0	0	0	0	7
ATR-42	Package 1	0	0	0	0	0	0	0	0	0	0	7
A330	Package 1	0	0	0	0	0	0	0	0	0	0	7
A320	Package 1	0	0	0	0	0	0	0	0	0	0	7
A310	Package 1	0	0	0	0	0	0	0	0	0	0	7
C130	Package 1	0	0	0	0	0	0	0	0	0	0	7
A340	Package 1	0	0	0	0	0	0	0	0	0	0	7
K35R	Package 1	0	0	0	0	0	0	0	0	0	0	7
B-757	Package 1	0	0	0	0	0	0	0	0	0	0	7
IL18	Package 1	0	0	0	0	0	0	0	0	0	0	7
C17	Package 1	0	0	0	0	0	0	0	0	0	0	7
AN12	Package 1	0	0	0	0	0	0	0	0	0	0	7
AN24	Package 1	0	0	0	0	0	0	0	0	0	0	7
SH7	Package 1	0	0	0	0	0	0	0	0	0	0	7

Paso 3/8 : Agregar los costos adicionales

The screenshot displays the 'CNS/ATM Business Case Analysis Tool - [New Scenario]' window. The interface includes a menu bar (Database, Scenarios, Reports, About, Quit) and a 'Scenario Name' input field. A series of tabs are visible, with 'ANSP additional costs' currently selected. Other tabs include Homogeneous Area, Conventional Technology Equipment Types, ANSP Parameters, ANSP Conventional Technology Decision Process, ANSP New Technology Decision Process, Aircraft Fleet Forecasts, Flight Hours Forecasts, Aircraft Equipage Decision Process, Aircraft Equipage Profile, and Flight Efficiency Rates. The 'ANSP additional costs' tab contains a table with columns for 'Cost type' and years from 2006 to 2017. The table area is currently empty and highlighted in light blue. To the right of the table are 'Save' and 'Cancel' buttons. At the bottom of the window are 'Clear cost grid' and 'Add cost line' buttons.

Cost type	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
-----------	------	------	------	------	------	------	------	------	------	------	------	------

CNS/ATM Business Case Analysis Tool - [New Scenario]

Database Scenarios Reports About Quit

Scenario Name:

Homogeneous Area Conventional Technology Equipment Types ANSP Parameters ANSP Conventional Technology Decision Process ANSP New Technology Decision Process Aircraft Fleet Forecasts

Flight Hours Forecasts Aircraft Equipage Decision Process Aircraft Equipage Profile Flight Efficiency Rates **ANSP additional costs** Airspace users additional costs

Save
Cancel

Cost type	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Other	0	0	0	0	0	0	0	0	0	0	0	0

Clear cost grid Add cost line

CNS/ATM Business Case Analysis Tool - [Scenario Manager]

Database Scenarios Reports About Quit

Scenario Name:

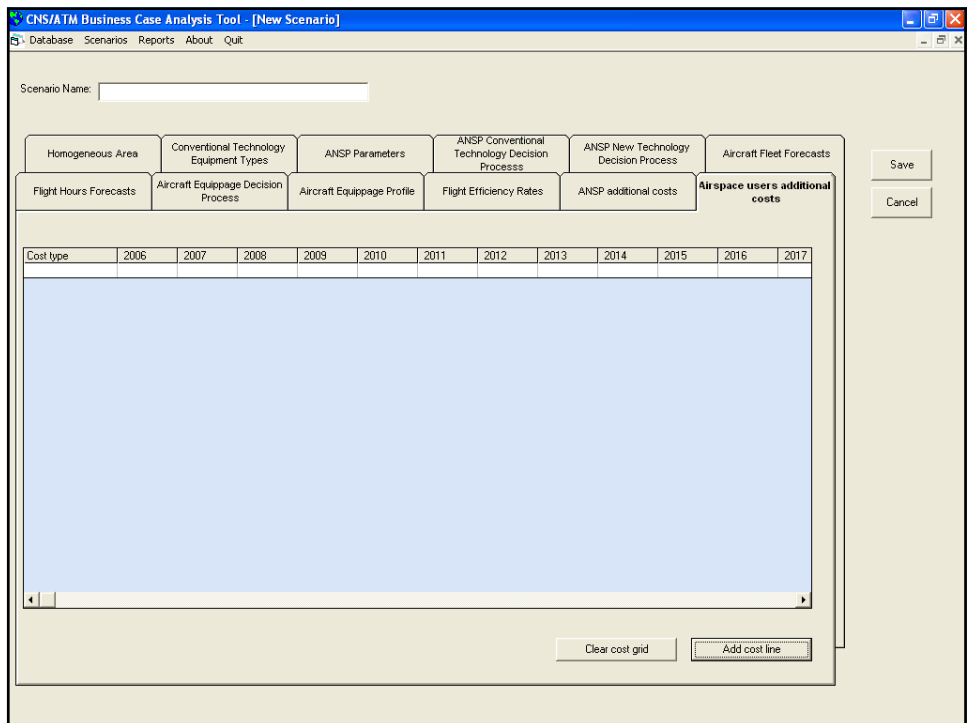
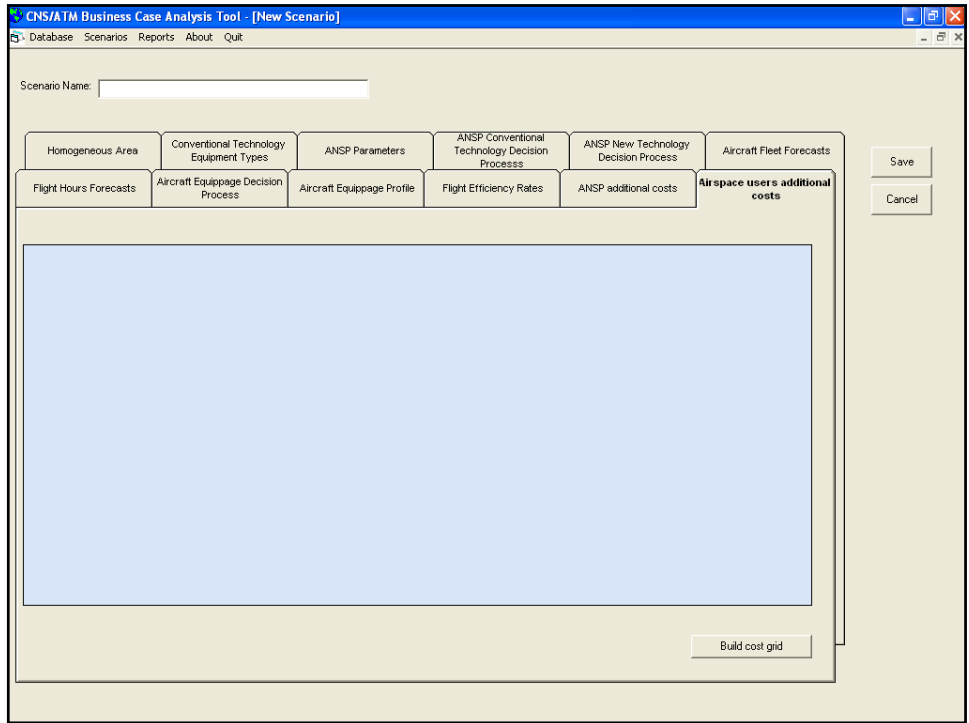
Homogeneous Area Conventional Technology Equipment Types ANSP Parameters ANSP Conventional Technology Decision Process ANSP New Technology Decision Process Aircraft Fleet Forecasts

Flight Hours Forecasts Aircraft Equipage Decision Process Aircraft Equipage Profile Flight Efficiency Rates **ANSP additional costs** Airspace users additional costs

Save
Cancel

Cost Type	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Other	0	5000	7000	5000	6000	5000	6000	7000	0	0	0	0

Clear cost grid Add cost line



CNS/ATM Business Case Analysis Tool - [New Scenario]

Database Scenarios Reports About Quit

Scenario Name:

Homogeneous Area Conventional Technology Equipment Types ANSP Parameters ANSP Conventional Technology Decision Process ANSP New Technology Decision Process Aircraft Fleet Forecasts

Flight Hours Forecasts Aircraft Equipage Decision Process Aircraft Equipage Profile Flight Efficiency Rates ANSP additional costs **Airspace users additional costs**

Cost type	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Other	0	0	0	0	0	0	0	0	0	0	0	0

Clear cost grid Add cost line

Save
Cancel

CNS/ATM Business Case Analysis Tool - [Scenario Manager]

Database Scenarios Reports About Quit

Scenario Name:

Homogeneous Area Conventional Technology Equipment Types ANSP Parameters ANSP Conventional Technology Decision Process ANSP New Technology Decision Process Aircraft Fleet Forecasts

Flight Hours Forecasts Aircraft Equipage Decision Process Aircraft Equipage Profile Flight Efficiency Rates ANSP additional costs **Airspace users additional costs**

Cost Type	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Other	0	2000	3000	2500	4000	4000	3000	5000	4000	5000	0	0

Clear cost grid Add cost line

Save
Cancel

Paso 3/9 : Asignarle un nombre al escenario

Scenario Name:

Cost Type	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Other	0	2000	3000	2500	4000	4000	3000	5000	4000	5000	0	0

Please enter a name for this scenario

OK

Clear cost grid Add cost line

CNS/ATM Business Case Analysis Tool - [Scenario Manager]

Database Scenarios Reports About Quit

Scenario Name: Oman_Illustration

Homogeneous Area Conventional Technology Equipment Types ANSP Parameters ANSP Conventional Technology Decision Process ANSP New Technology Decision Process Aircraft Fleet Forecasts

Flight Hours Forecasts Aircraft Equipage Decision Process Aircraft Equipage Profile Flight Efficiency Rates ANSP additional costs **Airspace users additional costs**

Cost Type	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Other	0	2000	3000	2500	4000	4000	3000	5000	4000	5000	0	0

Clear cost grid Add cost line

Save
Cancel

CNS/ATM Business Case Analysis Tool - [Scenario Manager]

Database Scenarios Reports About Quit

Scenario Name: Oman_Illustration

Homogeneous Area Conventional Technology Equipment Types ANSP Parameters ANSP Conventional Technology Decision Process ANSP New Technology Decision Process Aircraft Fleet Forecasts

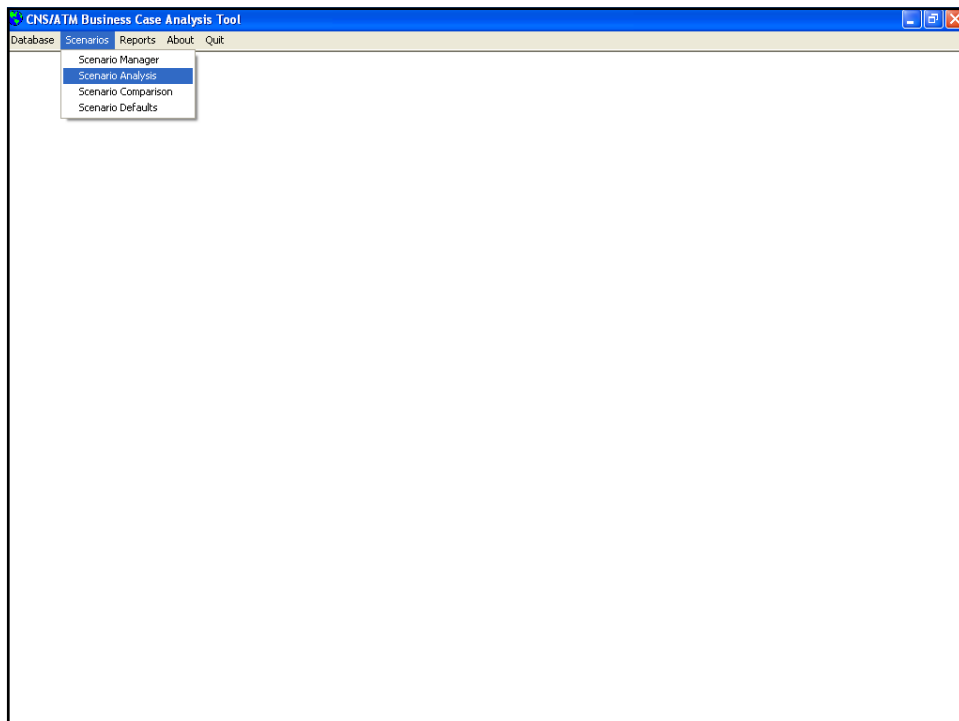
Flight Hours Forecasts Aircraft Equipage Decision Process Aircraft Equipage Profile Flight Efficiency Rates ANSP additional costs **Airspace users additional costs**

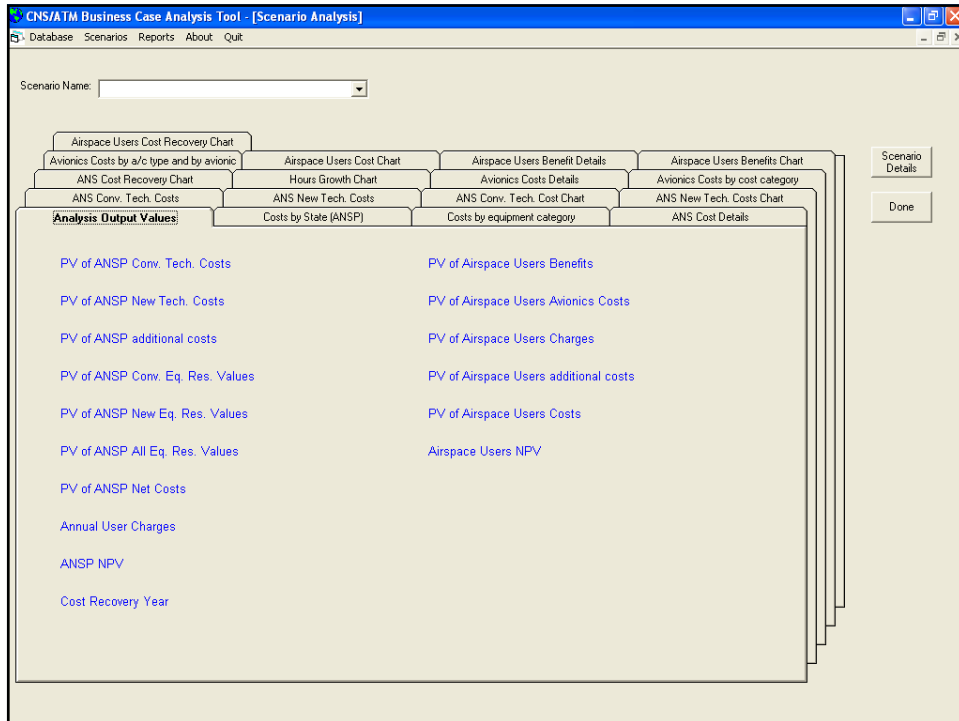
Cost Type	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Other	0	2000	3000	2500	4000	4000	3000	5000	4000	5000	0	0

Clear cost grid Add cost line

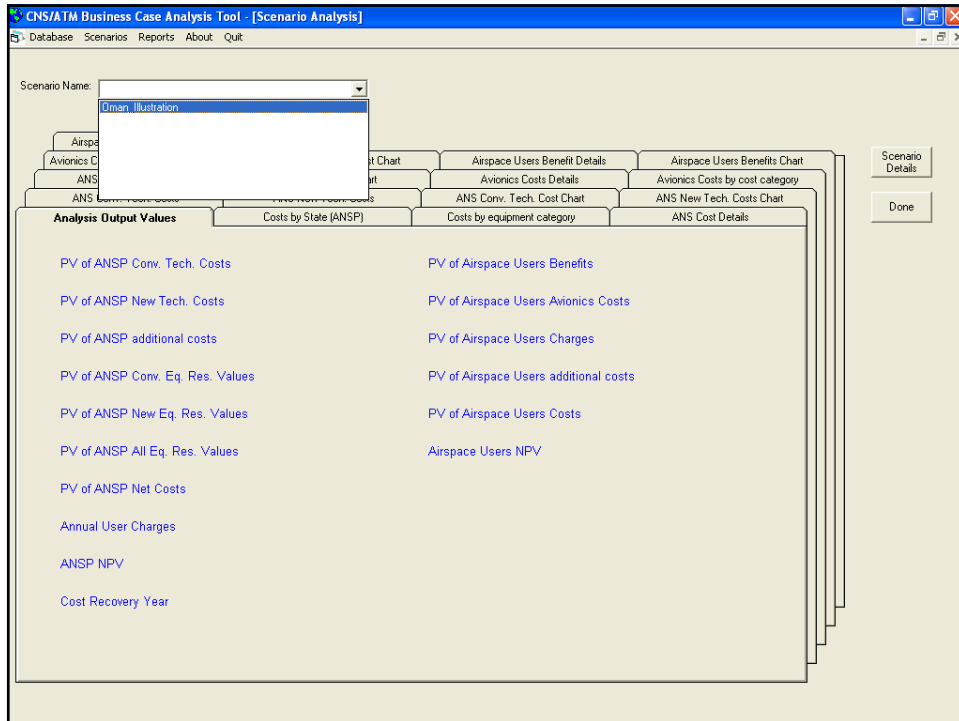
Add New
Copy
Delete
Done

Paso 4 : *Análisis del escenario*

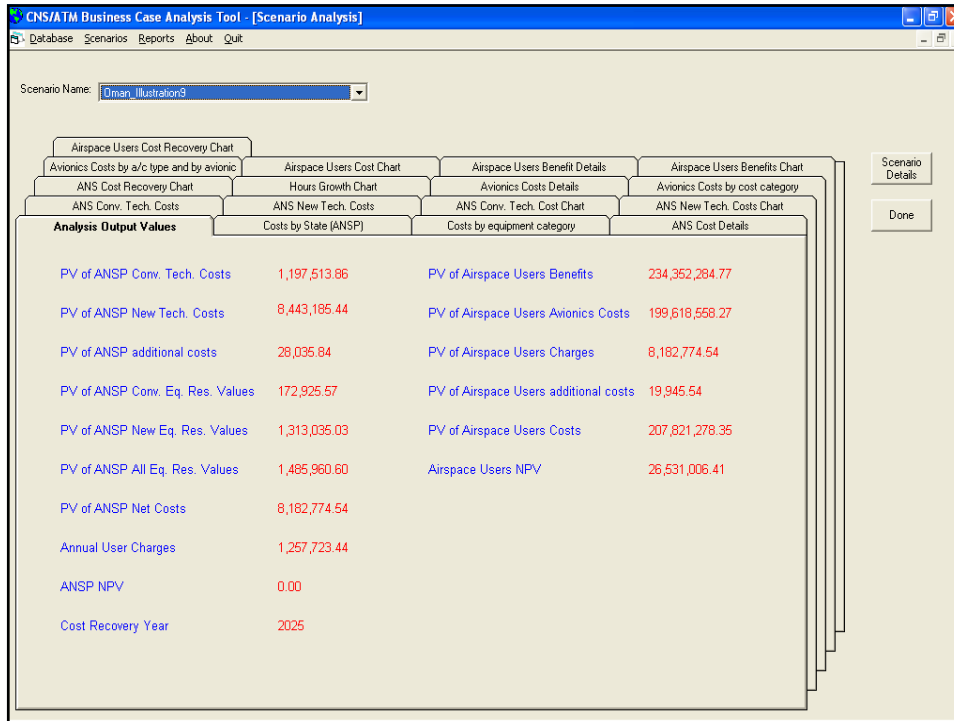




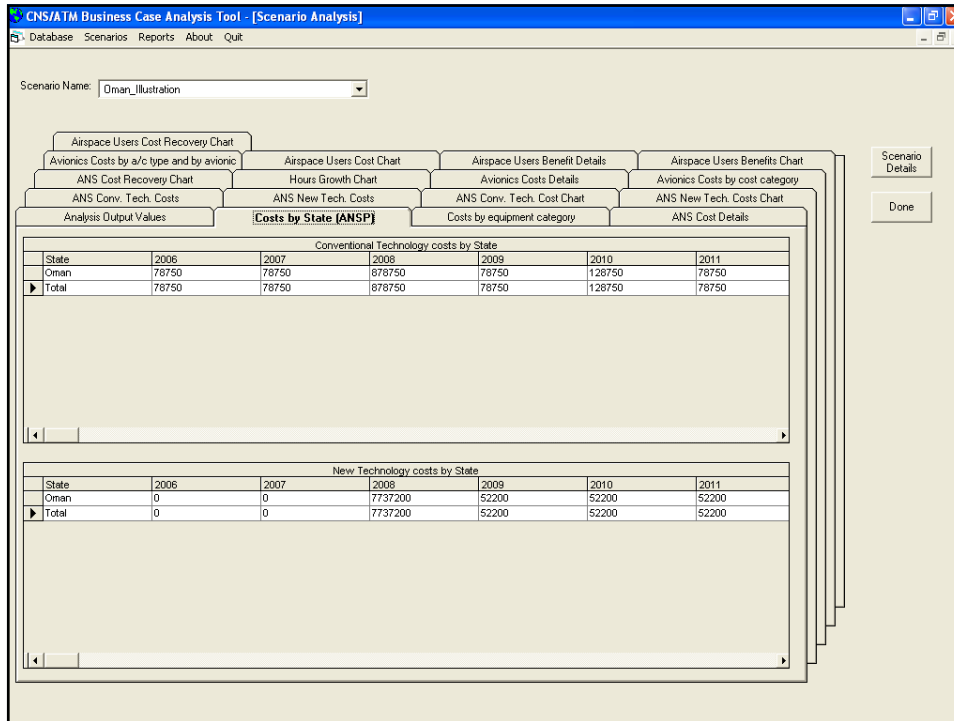
Paso 4/1 : Seleccionar el escenario



Resultados/1 : Valores resultantes del análisis



Resultados/2 : Costos por Estado



Resultados/3 : Costos del proveedor de servicios por categoría de equipo

CNS/ATM Business Case Analysis Tool - [Scenario Analysis]

Database Scenarios Reports About Quit

Scenario Name: Oman_Illustration

Airspace Users Cost Recovery Chart
 Avionics Costs by a/c type and by avionic
 Airspace Users Cost Chart
 Airspace Users Benefit Details
 Airspace Users Benefits Chart
 ANS Cost Recovery Chart
 Hours Growth Chart
 Avionics Costs Details
 Avionics Costs by cost category
 ANS Conv. Tech. Costs
 ANS New Tech. Costs
 ANS Conv. Tech. Cost Chart
 ANS New Tech. Costs Chart
 Analysis Output Values
 Costs by State (ANSP)
Costs by equipment category
 ANS Cost Details

Scenario Details
Done

Conventional Technology costs by equipment category						
Equipment Category	2006	2007	2008	2009	2010	2011
Communication	750	750	750	750	750	750
Navigation	75000	75000	875000	75000	75000	75000
Surveillance	3000	3000	3000	3000	53000	3000
Total	78750	78750	878750	78750	128750	78750

New Technology costs by equipment category						
Equipment Category	2006	2007	2008	2009	2010	2011
Communication	0	0	6660000	10000	10000	10000
Navigation	0	0	1422200	22200	22200	22200
Surveillance	0	0	655000	20000	20000	20000
Total	0	0	7737200	52200	52200	52200

Resultados/4 : Detalles de los costos del proveedor de servicios

CNS/ATM Business Case Analysis Tool - [Scenario Analysis]

Database Scenarios Reports About Quit

Scenario Name: Oman_Illustration

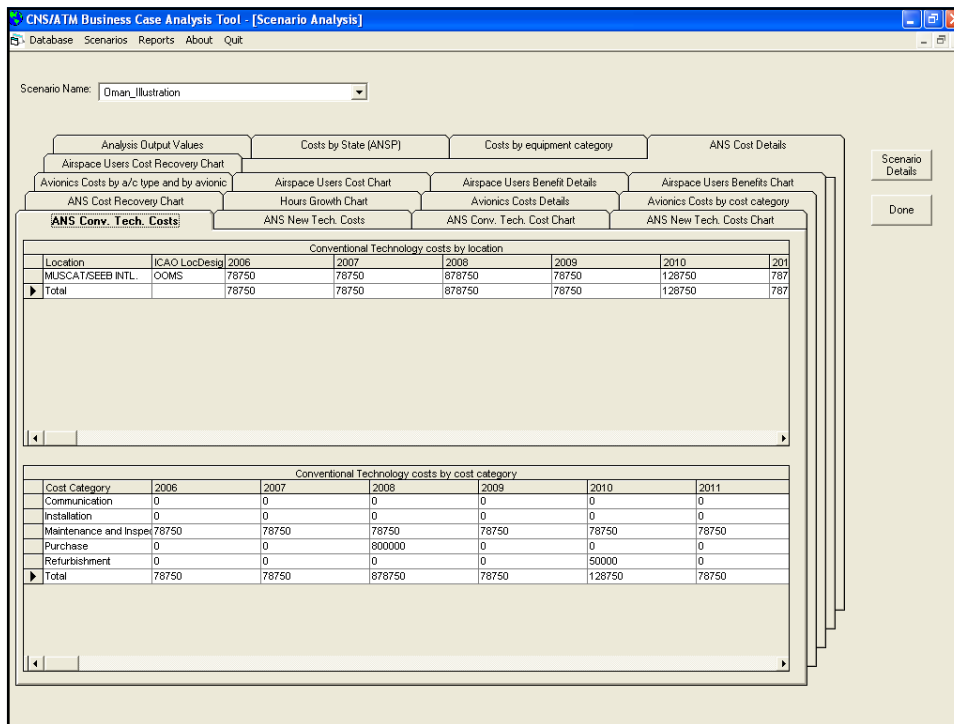
Airspace Users Cost Recovery Chart
 Airspace Users Cost Chart
 Airspace Users Benefit Details
 Airspace Users Benefits Chart
 Avionics Costs by a/c type and by avionic
 Hours Growth Chart
 Avionics Costs Details
 Avionics Costs by cost category
 ANS Cost Recovery Chart
 ANS Conv. Tech. Costs
 ANS New Tech. Costs
 ANS Conv. Tech. Cost Chart
 ANS New Tech. Costs Chart
 Analysis Output Values
 Costs by State (ANSP)
 Costs by equipment category
ANS Cost Details

Scenario Details
Done

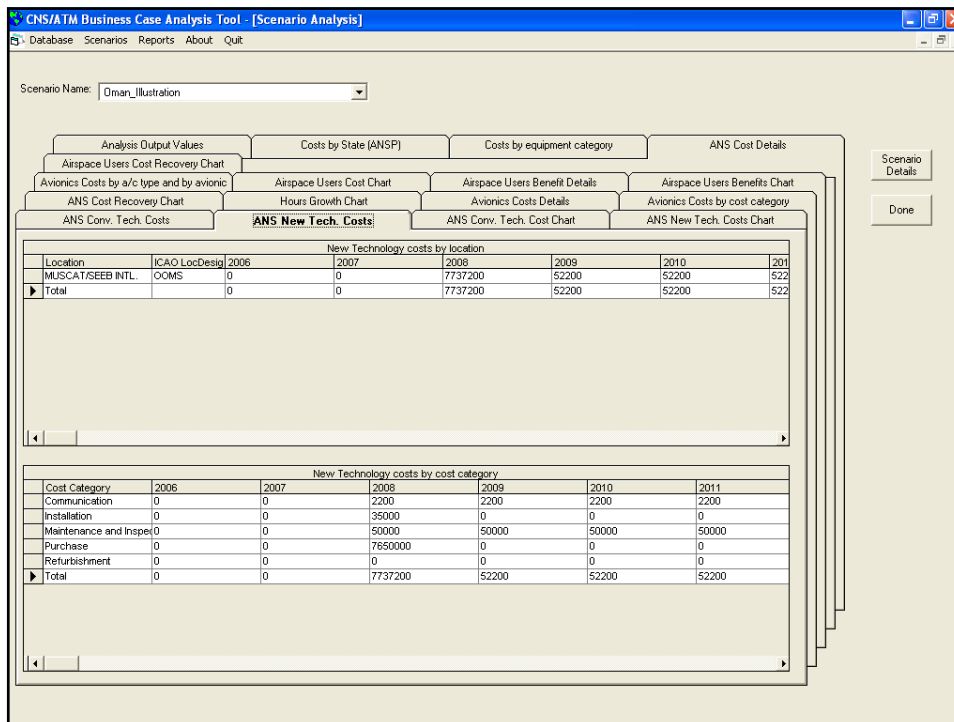
Conventional Technology cost details						
State	Location	ICAO LocDesig	Equipment	Technical Option/Decision	Installation Date	2006
Oman	MUSCAT/SEEB INTL	OOMS	VOR	Keep until the end of the tr	1/01/83	0
Oman	MUSCAT/SEEB INTL	OOMS	VHF VOICEDATA	Keep until the end of the tr	1/01/86	750
Oman	MUSCAT/SEEB INTL	OOMS	ILS CAT II	Keep until the end of the tr	1/01/83	75000
Oman	MUSCAT/SEEB INTL	OOMS	PSR	Keep until the end of the tr	1/01/95	2000
Oman	MUSCAT/SEEB INTL	OOMS	MSSR	Keep until the end of the tr	1/01/95	1000
Oman	MUSCAT/SEEB INTL	OOMS	DVOR	Keep until the end of the tr	1/01/85	0
Total						78750

New Technology cost details						
State	Location	ICAO LocDesig	Equipment	Installation Date	2006	2007
Oman	MUSCAT/SEEB INTL	OOMS	AMHS	1/01/08	0	500
Oman	MUSCAT/SEEB INTL	OOMS	AMSS Voice/Data	1/01/08	0	655
Oman	MUSCAT/SEEB INTL	OOMS	GBAS	1/01/08	0	880
Oman	MUSCAT/SEEB INTL	OOMS	SBAS-Ref	1/01/08	0	255
Oman	MUSCAT/SEEB INTL	OOMS	SBAS-Mst	1/01/08	0	307
Oman	MUSCAT/SEEB INTL	OOMS	ADS-B	1/01/08	0	395
Oman	MUSCAT/SEEB INTL	OOMS	ADS-C (Workstations)	1/01/08	0	260
Total					0	773

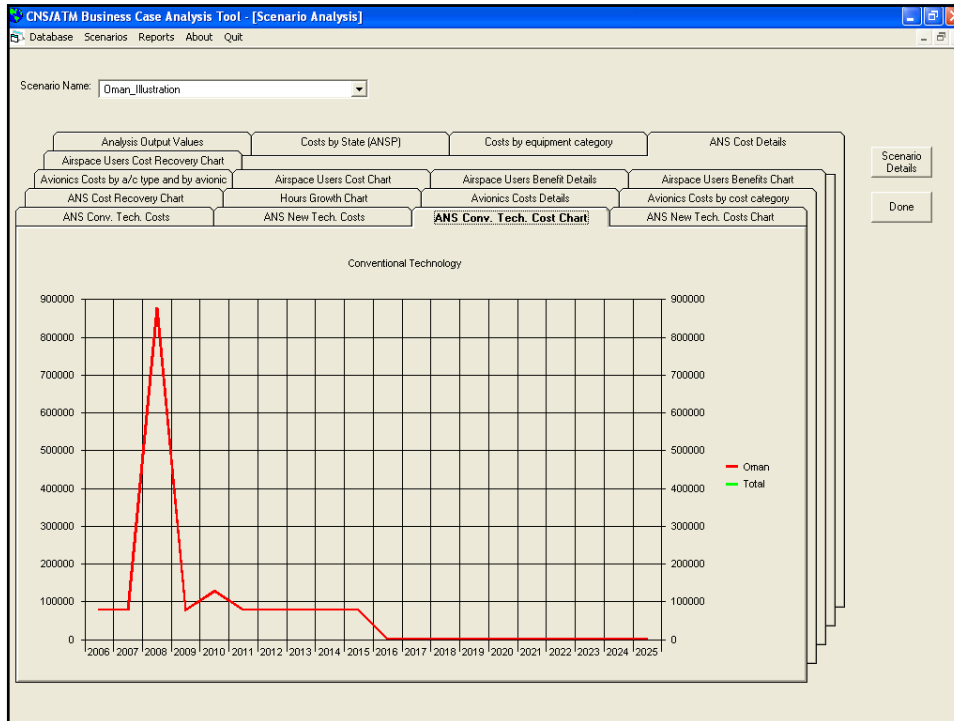
Resultados/5 : Costos de la tecnología convencional, por lugar y categoría de costos



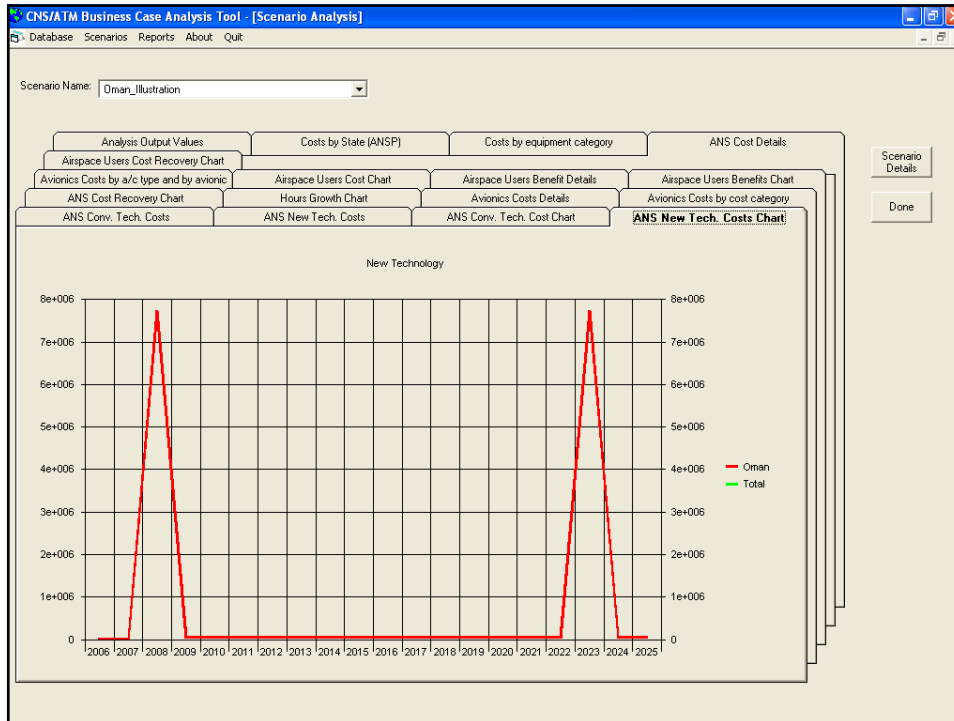
*Resultados/6 : Costos de la nueva tecnología
por lugar y categoría de costos*



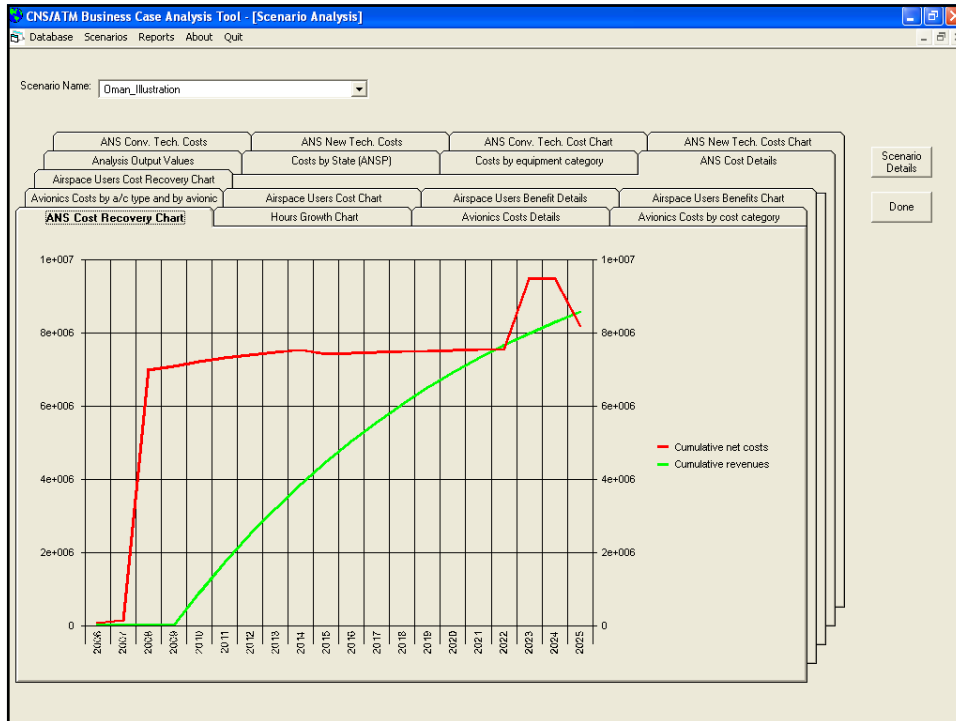
Resultados/7 : Cuadro de costos de la tecnología convencional



Resultados/8 : Cuadro de costos de la nueva tecnología



*Resultados/9 : Cuadro de recuperación de
costos del proveedor de servicios*



*Resultados/10 : Detalles de los costos de
aviónica*

CNS/ATM Business Case Analysis Tool - [Scenario Analysis]

Database Scenarios Reports About Quit

Scenario Name: Oman_Illustration

ANS Conv. Tech. Costs ANS New Tech. Costs ANS Conv. Tech. Cost Chart ANS New Tech. Costs Chart
 Analysis Output Values Costs by State (ANSP) Costs by equipment category ANS Cost Details

Airspace Users Cost Recovery Chart Airspace Users Cost Chart Airspace Users Benefit Details Airspace Users Benefits Chart

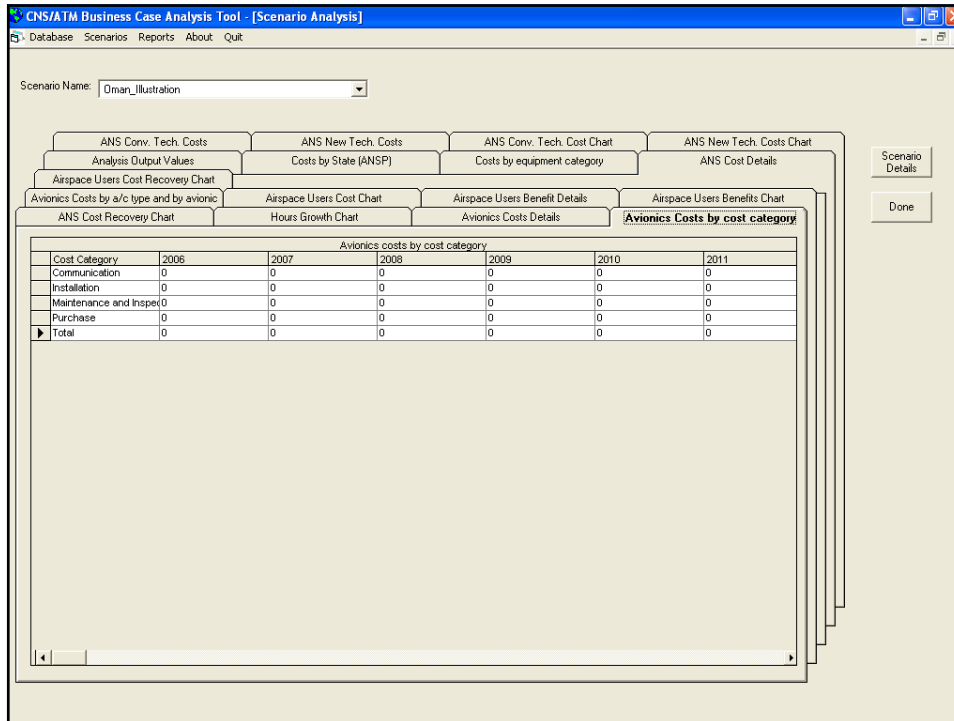
Avionics Costs by a/c type and by avionics ANS Cost Recovery Chart Hours Growth Chart **Avionics Costs Details** Avionics Costs by cost category

Scenario Details
Done

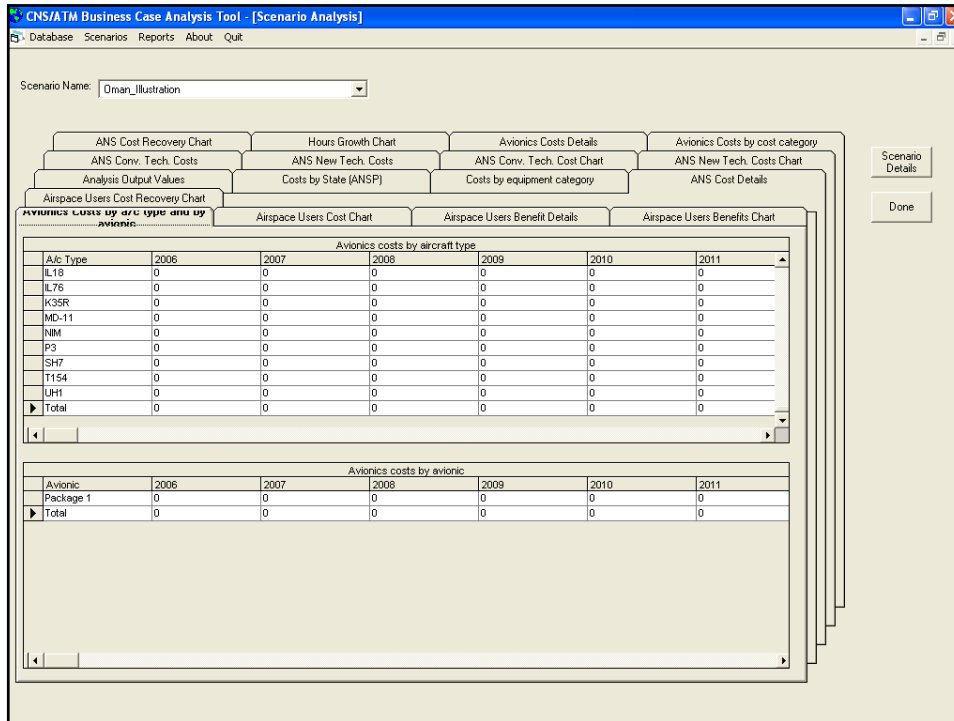
		Fleet Equipage				
A/c Type	Avionic	2006	2007	2008	2009	2010
IL18	Package 1	0	0	0	0	0
IL76	Package 1	0	0	0	0	0
K35R	Package 1	0	0	0	0	0
MD-11	Package 1	0	0	0	0	0
NIM	Package 1	0	0	0	0	0
P3	Package 1	0	0	0	0	0
SH7	Package 1	0	0	0	0	0
T154	Package 1	0	0	0	0	0
JH1	Package 1	0	0	0	0	0
Total		0	0	0	0	0

		Avionics Costs Details							
A/c Type	Avionic	Cost Category	2006	2007	2008	2009	2010	2011	2012
JH1	Package 1	Purchase	0	0	0	0	0	0	0
NIM	Package 1	Communication	0	0	0	0	0	0	0
NIM	Package 1	Installation	0	0	0	0	0	0	0
NIM	Package 1	Maintenance and Inspe	0	0	0	0	0	0	0
NIM	Package 1	Purchase	0	0	0	0	0	0	0
B707	Package 1	Communication	0	0	0	0	0	0	0
B707	Package 1	Installation	0	0	0	0	0	0	0
B707	Package 1	Maintenance and Inspe	0	0	0	0	0	0	0
B707	Package 1	Purchase	0	0	0	0	0	0	0
Total			0	0	0	0	0	0	0

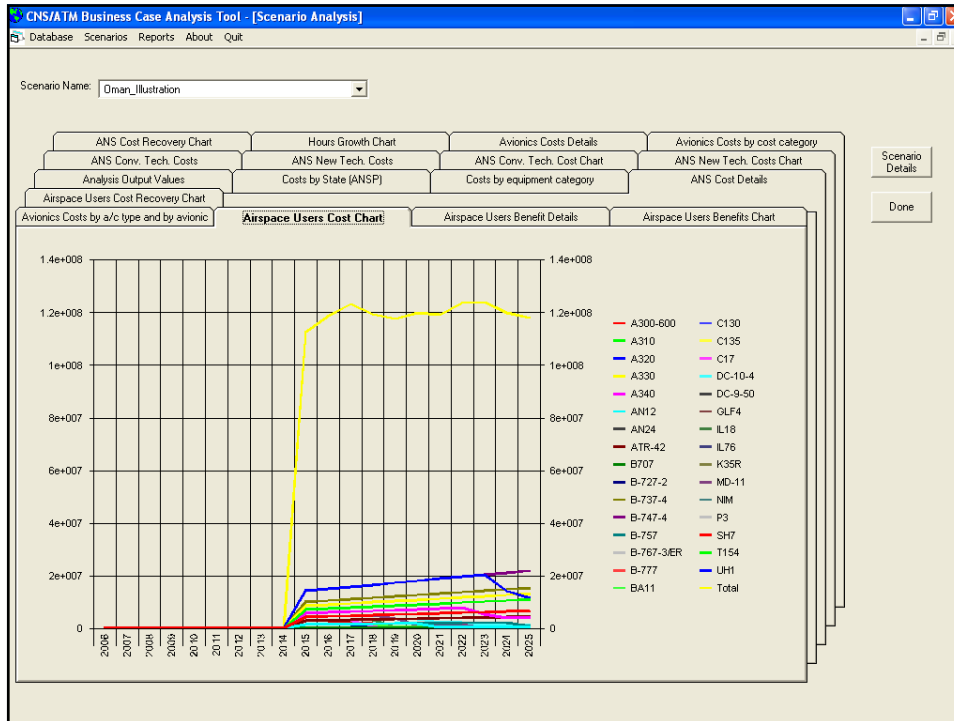
Resultados/11 : Costo de aviónica por categoría de costos



Resultados/12 : Costos de aviónica por tipo de aeronave y tipo de aviónica



Resultados/13 : Cuadro de costos de los usuarios del espacio aéreo



Resultados/14 : Detalles de los beneficios de los usuarios del espacio aéreo

CNS/ATM Business Case Analysis Tool - [Scenario Analysis]

Database Scenarios Reports About Quit

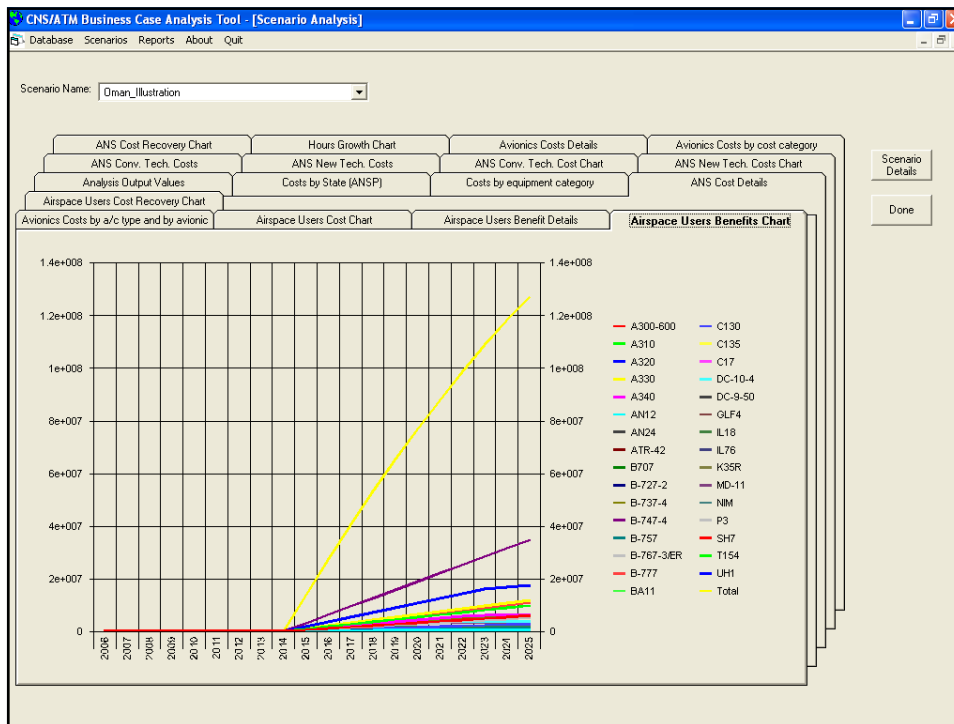
Scenario Name: Oman_Illustration

ANS Cost Recovery Chart Hours Growth Chart Avionics Costs Details Avionics Costs by cost category
 ANS Conv. Tech. Costs ANS New Tech. Costs ANS Conv. Tech. Cost Chart ANS New Tech. Costs Chart
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Avionics Costs by a/c type and by avionic Scenario Details
 Done

A/c Type	Airline benefits (cost savings)					
	2006	2007	2008	2009	2010	2011
AN24	0	0	0	0	0	0
ATR-42	0	0	0	0	0	0
B707	0	0	0	0	0	0
B-727-2	0	0	0	0	0	0
B-737-4	0	0	0	0	0	0
B-747-4	0	0	0	0	0	0
B-757	0	0	0	0	0	0
B-767-3ER	0	0	0	0	0	0
B-777	0	0	0	0	0	0
BA11	0	0	0	0	0	0
C130	0	0	0	0	0	0
C135	0	0	0	0	0	0
C17	0	0	0	0	0	0
DC-10-4	0	0	0	0	0	0
DC-9-50	0	0	0	0	0	0
GLF4	0	0	0	0	0	0
IL18	0	0	0	0	0	0
IL76	0	0	0	0	0	0
K35R	0	0	0	0	0	0
MD-11	0	0	0	0	0	0
NIM	0	0	0	0	0	0
PS	0	0	0	0	0	0
SH7	0	0	0	0	0	0
T154	0	0	0	0	0	0
JH1	0	0	0	0	0	0
Total	0	0	0	0	0	0

Resultados/15 : Cuadro de beneficios de los usuarios del espacio aéreo



*Resultados/16 : Cuadro de recuperación de
costos de los usuarios del espacio aéreo*

