



Asuntos Diversos

Julio Pereira

Assistant Director, Safety Flight Operations

Tel: +55 11 21874236 Mob: +55 11 993800953

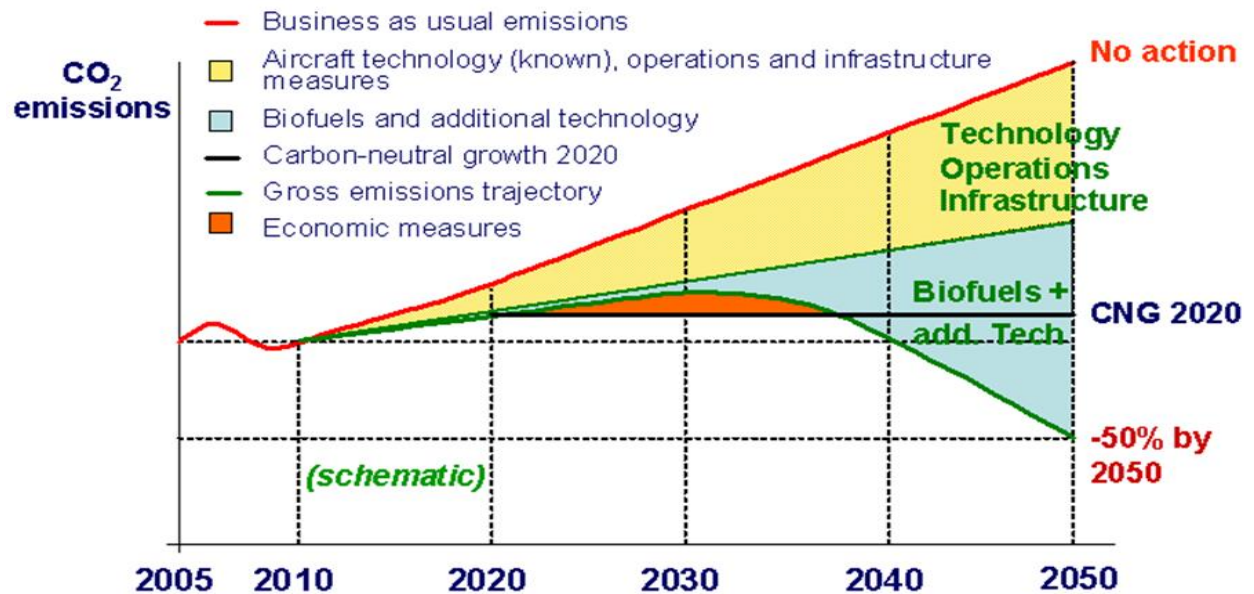


Metrics

- - FUEL/TIME TAXI OUT
 - - FUEL/TIME CLIMB
 - - FUEL/TIME CRUISE
 - - FUEL/TIME DESCEND
 - - FUEL/TIME TAXI IN
 - - ACFT TYPE
 - - PLANNING TRIP FUEL/TIME
 - - PLANNING TAXI OUT FUEL/TIME
 - - PLANNING AIR DISTANCE
 - - PLANNING GROUND DISTANCE
 - - ACTUAL AIR DISTANCE
 - - ACTUAL GROUND DISTANCE
 - - FLIGHT LEVEL (TOD)
- análisis de las diferencias de consumo de tiempo / combustible, en base a los datos recopilados en los siguientes períodos:
- Línea de base: nov 2014 hasta mar 2015
 - período posterior a cambio de nov 2015 hasta mar 2016.



Metrics



Infrastructure plays a Key role

Metrics

- RTCA has developed together with an FAA working group with industry participation a set of metrics to start monitoring the efficiency of the flight efficiency and correlated factors (e.g. delays).
- Passur was been contracted to implement 6 metrics which the deployment is expected for May 2016. They use available data sources from airlines & ANSP/Airport systems. This proves the metrics are able to be implemented and use in a systematic way.
- IATA Regional Coordination Group (RCG) NATNAM/LATAM-CAR has decided to propose a harmonized approach for Flight Efficiency metrics to avoid different data requests, different metrics definition and a more difficult analysis of a regional/global efficiency.
- Additional relevant metrics were proposed by RCG NATNAM/LATAM-CAR to integrate other Countries proposed metrics and IATA research work.



Metrics (primary level)	Description
Actual block time	Actual time from Gate-Out time to Gate-In time for a specified period of time by city pair (minutes/flight)
Actual Flight Time	Time between Takeoff and landing recorded by OOOI/Tower
Actual distance flown (GD)	Actual track distance between key city pairs for a specified period of time (Nm). (Ground Distance)
Actual air distance flown (AD)	Actual track distance between key city pairs for a specified period of time (Nm). (Air Distance)
Number/Duration of transmissions through VCCS (radio), CPDLC DCL	To access Controller/Pilot workload
Actual Fuel burn	Actual fuel burn for a specified period of time (Fuel burn/RTK)
Actual CO2	Actual CO2 for a specified period of time (Fuel burn/RTK)
Airport Throughput	Average Daily Capacity (ADC) * - By airport (Facility reported rates) Average daily sum of effective Airport Arrival Rate (AAR) and Arrival departure rate (ADR) for a specified period of time by airport (operations)
Taxi-out Time	Actual time from Gate-Out to Wheels-Off time by airport (minutes/flight)
Taxi-in Time	Actual time from Touchdown to Gate-in time by airport (minutes/flight)
Gate Departure Delay by ATC reasons	Difference in actual Gate-Out time and scheduled Gate-Out time

Metrics (Secondary level)	Description
Planned Flight Time	Planned Flight Time from the Operational Flight Plan (takeoff to land)
Planned Air Distance	Planned Air Distance from the Operational Flight Plan
Planned Ground Distance	Planned Ground Distance from the Operational Flight Plan
Planned Flight Level Profile	Planned (OFP) Flight level change, time, new flight level
Actual Flight Level Profile	Actual Flight level change, time, new flight level

Proyecto PBN SAM

- Plan de acción actualizado: Chile y Ecuador
- Procedimientos actualizados: Brasil, Chile, Ecuador, Panama, Surinam, Uruguay y Venezuela

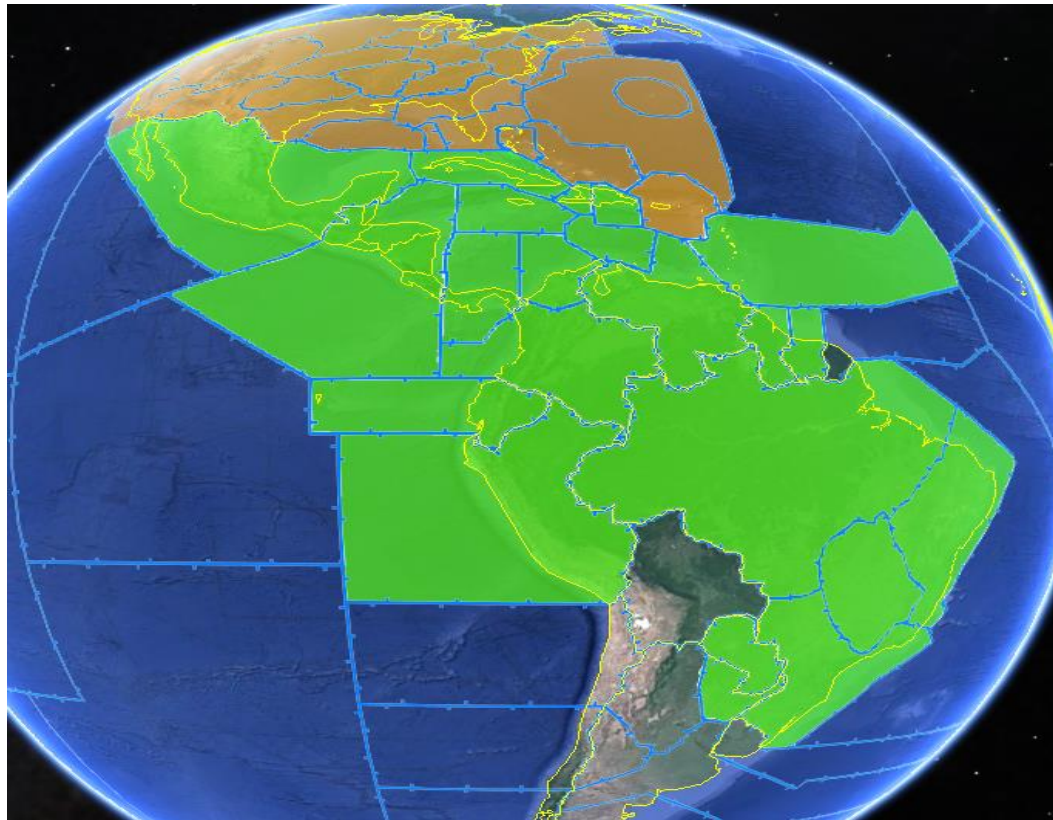
Task Name	Duration	Start	Finish
Ecuador	783 days	Wed 01/01/14	Fri 30/12/16
Implantación TMA Guayaquil (Actualizado 25 abril 2016)	619 days	Mon 02/06/14	Thu 13/10/16
Planificación	36 days	Mon 02/06/14	Mon 21/07/14
ACT 1 Acuerdo sobre los requisitos operacionales	5 days	Mon 02/06/14	Fri 06/06/14
ACT 2 Creación del equipo de diseño de espacio aéreo.	7 days	Sat 07/06/14	Mon 16/06/14
ACT 3 Acuerdo sobre objetivos, alcance y plazo.	8 days	Tue 17/06/14	Thu 26/06/14
ACT 4 Análisis del escenario de referencia.	11 days	Fri 27/06/14	Fri 11/07/14
ACT 5 Selección de los criterios de seguridad operacional, política conexas y criterios de actuación	4 days	Sat 12/07/14	Wed 16/07/14
ACT 6 Acuerdos sobre hipótesis, elementos facilitadores y restricciones.	3 days	Thu 17/07/14	Mon 21/07/14
DISEÑO	130 days	Tue 22/07/14	Mon 19/01/15
ACT 7 Diseño de las rutas y esperas del espacio aéreo.	15 days	Tue 22/07/14	Mon 11/08/14
ACT 8 Diseño inicial de los procedimientos.	14 days	Tue 12/08/14	Fri 29/08/14
ACT 9 Diseño de volúmenes y sectores de espacio aéreo.	12 days	Sat 30/08/14	Sun 14/09/14
ACT 10 Confirmar la especificación OACI para la navegación; Reajuste en los diseños de los Procedimientos por cambios en características físicas de pista SEGU.	91 days	Mon 15/09/14	Mon 19/01/15

VALIDACION	139 days	Tue 20/01/15	Fri 31/07/15
ACT 11 Análisis SMS, identificación de peligros y mitigación; Análisis en pizarra. Pruebas: SIM operativo SEGU; Cálculos del beneficio operacional, ahorro de combustible y CO2 (IFSET)	101 days	Tue 20/01/15	Tue 09/06/15
ACT 12 Finalización del diseño de Procedimientos y espacio aéreo.	22 days	Wed 10/06/15	Thu 09/07/15
ACT 13 Validación de procedimientos. En tierra	16 days	Fri 10/07/15	Fri 31/07/15
IMPLANTACION	283 days	Tue 15/09/15	Thu 13/10/16
ACT 14 Integración del sistema ATC; Modificación del procesador de Datos de vuelo (PDF); Cambios en el procesador de datos radar (RDP)	66 days	Tue 15/09/15	Tue 15/12/15
ACT 15 Concientización y elaboración de material de instrucción.	104 days	Wed 16/12/15	Mon 09/05/16
ACT 16 Entrega de datos al AIS; Fecha de Publicación; Implantación.	53 days	Tue 10/05/16	Thu 21/07/16
ACT 17 Análisis post- implantación	60 days	Fri 22/07/16	Thu 13/10/16

Procedimientos PBN

IAP APV/LNAV							SID		STAR		SID o STAR PBN	CCO	CDO
IAP APV	IAP RNP AR	IAP APV o RNP AR	IAP APV o RNP AR AIRPORT	IAP RNP AR only AIRPORT	IAP LNAV	IAP APV o RNP AR o LNAV	SID PBN AIRPORT	SID PBN	STAR PBN AIRPORT	STAR PBN			
49,71%	10,86%	53,14%	54,64%	15,31%	68,00%	69,54%	57,58%	57,23%	45,00%	41,71%	70,71%	17,42%	18,71%

Separación Longitudinal



Green: States in charge of the UTA/FIR that have accepted the concept and that have no problem to implement the optimized procedural separation.

Brown : States in charge of the UTA/FIR that have accepted the concept and that have a problem to implement the optimized procedural separation.

Separación Longitudinal en 2015



RED: 80 NM
YELLOW: 40 NM
GREEN: 10 NM or less

Separación Longitudinal Actualmente



RED: 80 NM
YELLOW: 40 NM
BLUE: 20 NM
GREEN: 10 NM or less

Thank you!

We represent, lead & serve
the airline industry

