REPORT OF THE LHD MONITORING TEAM

EUR/SAM Corridor

ANNALISYS OF REPORTED LHD DURING 2012

Number of LHD reported

SAT14 - TF1.- 43 LHD’s reported

SAT15.- 51 LHD’s reported

SAT16.-124 LHD’s reported

SAT17.-206 LHD’s reported

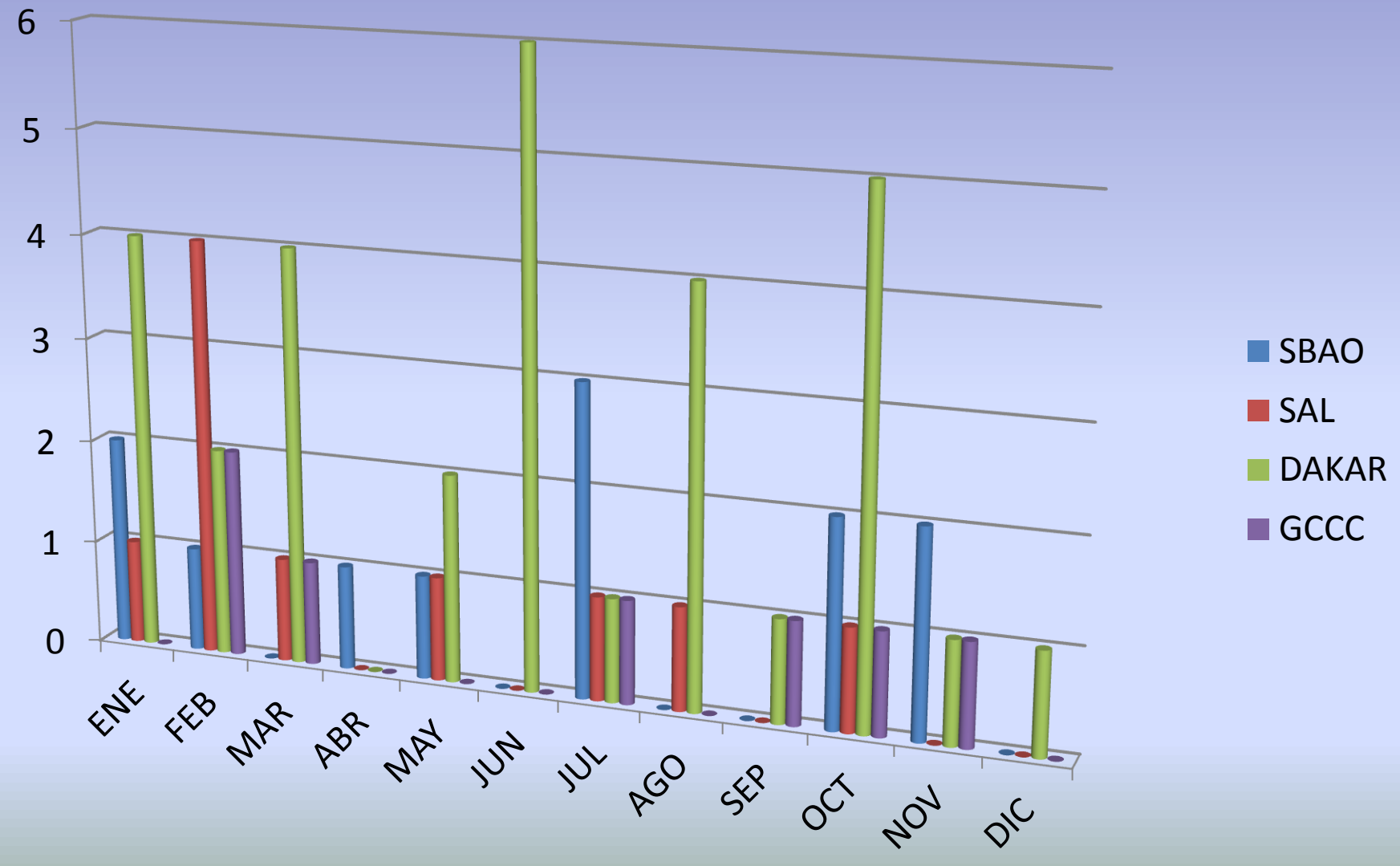
SAT18.-60 LHD’s reported

Distribution of LHD per month

January	February	March	April	May	June	July	August	September	October	November	December
7	9	6	1	4	6	6	5	2	9	4	1

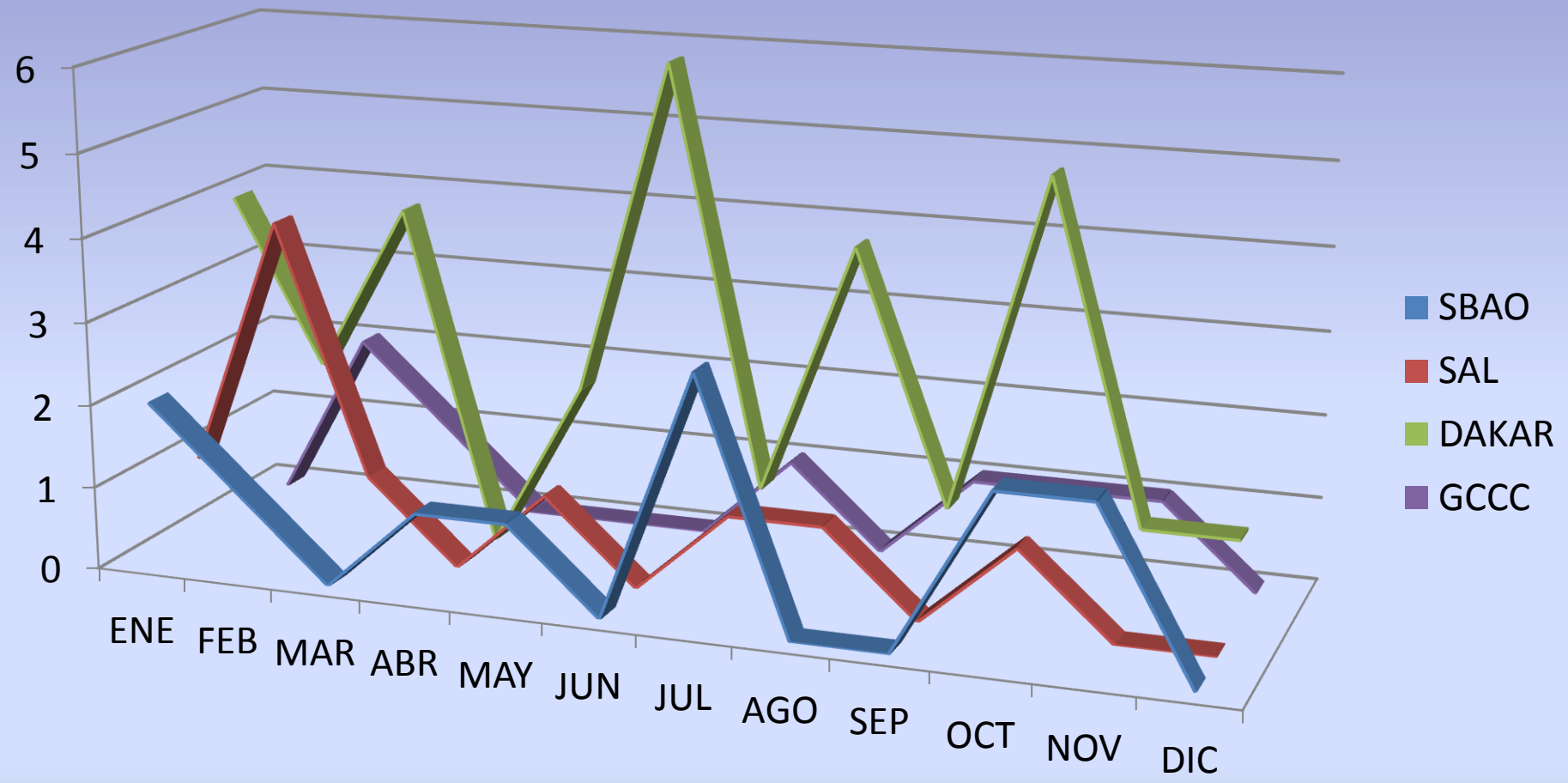
Number of LHD's reported

TOTAL LHD'S 2012: 60

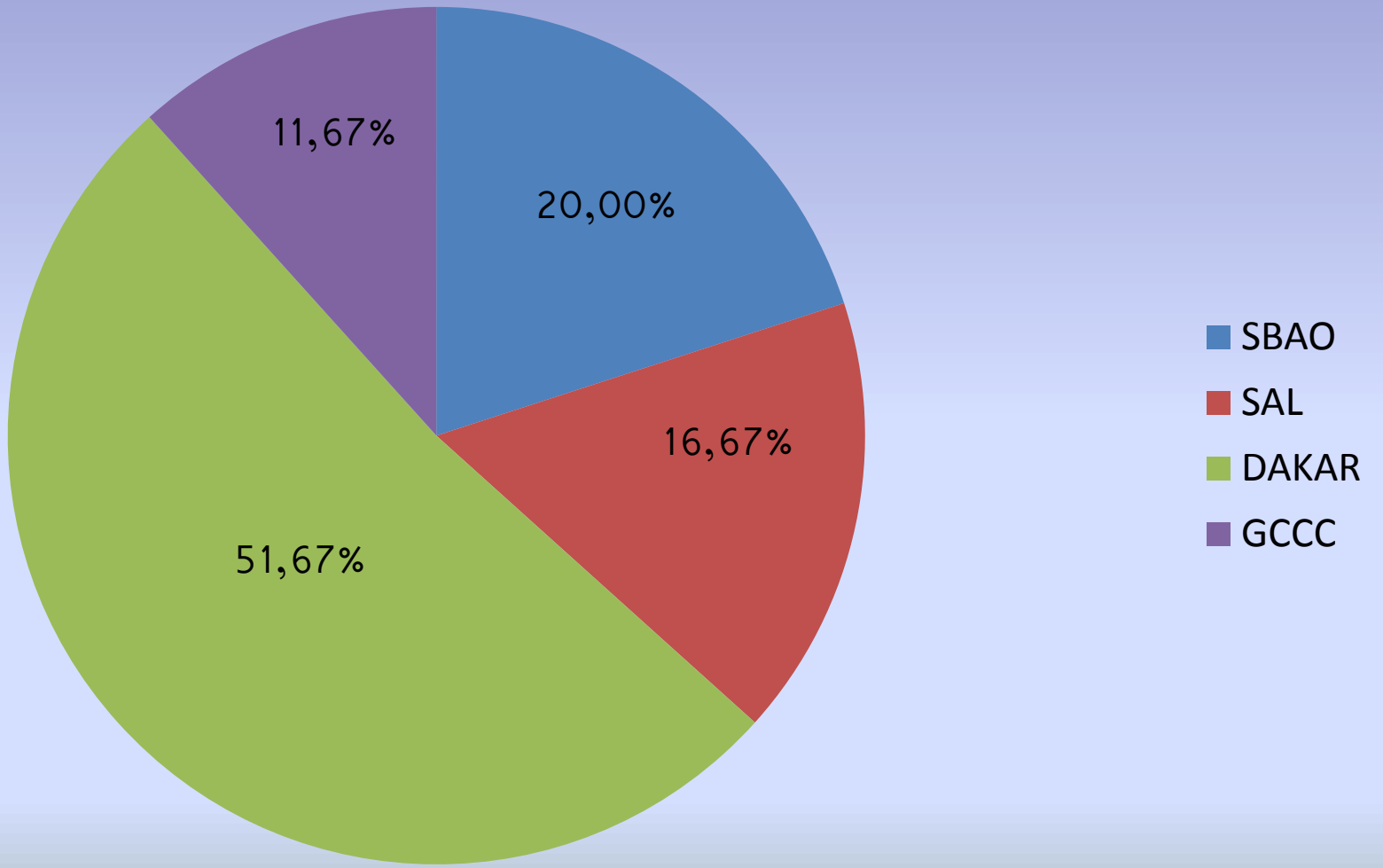


Monthly evolution of LHD's reported

TOTAL LHD'S 2012: 60



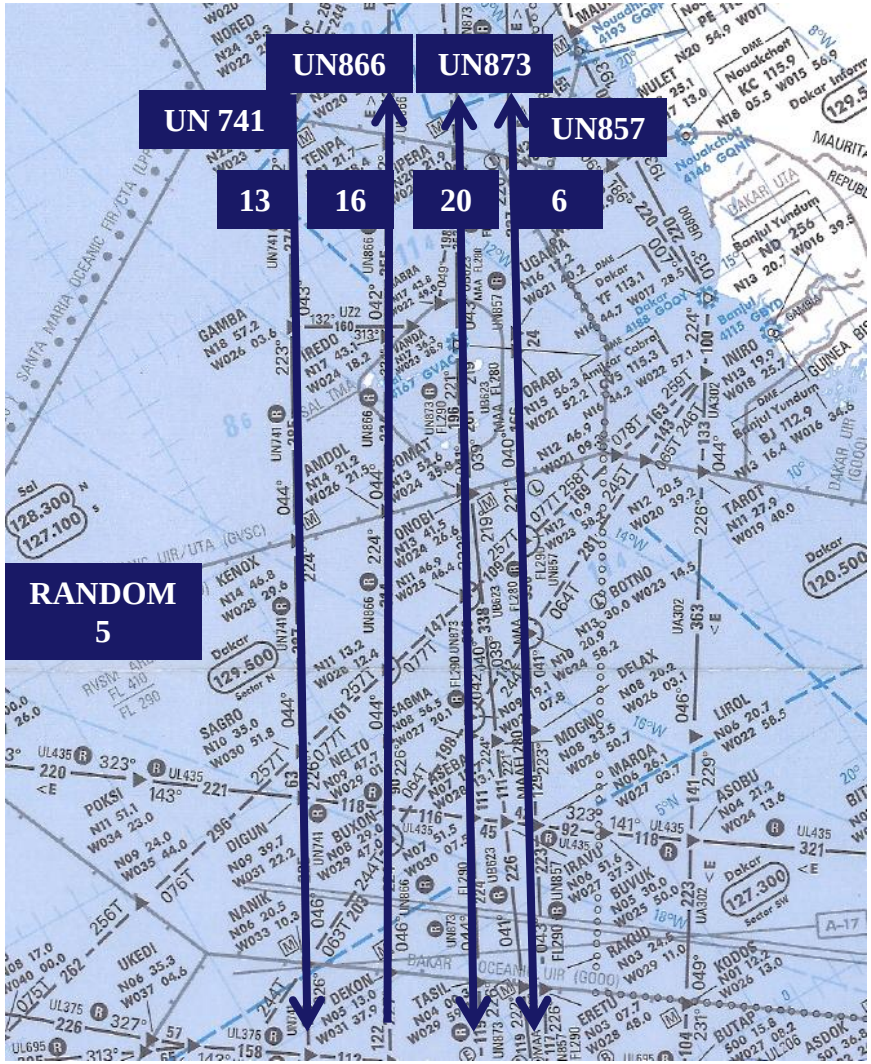
Percentage of LHD's per region



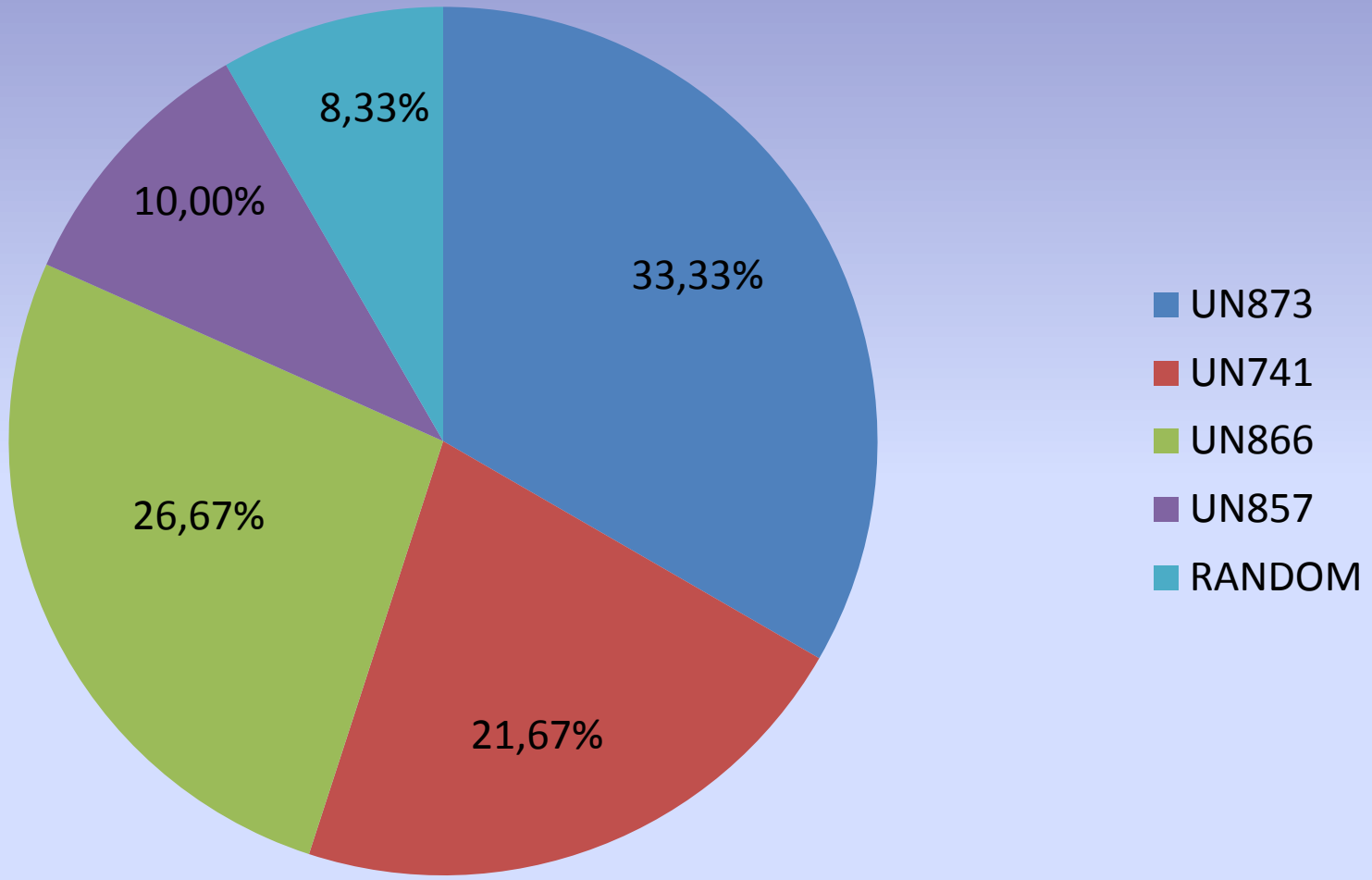
Distribution of LHD's per ATS route

RANDOM	UN741	UN866	UN873	UN857
5	13	16	20	6

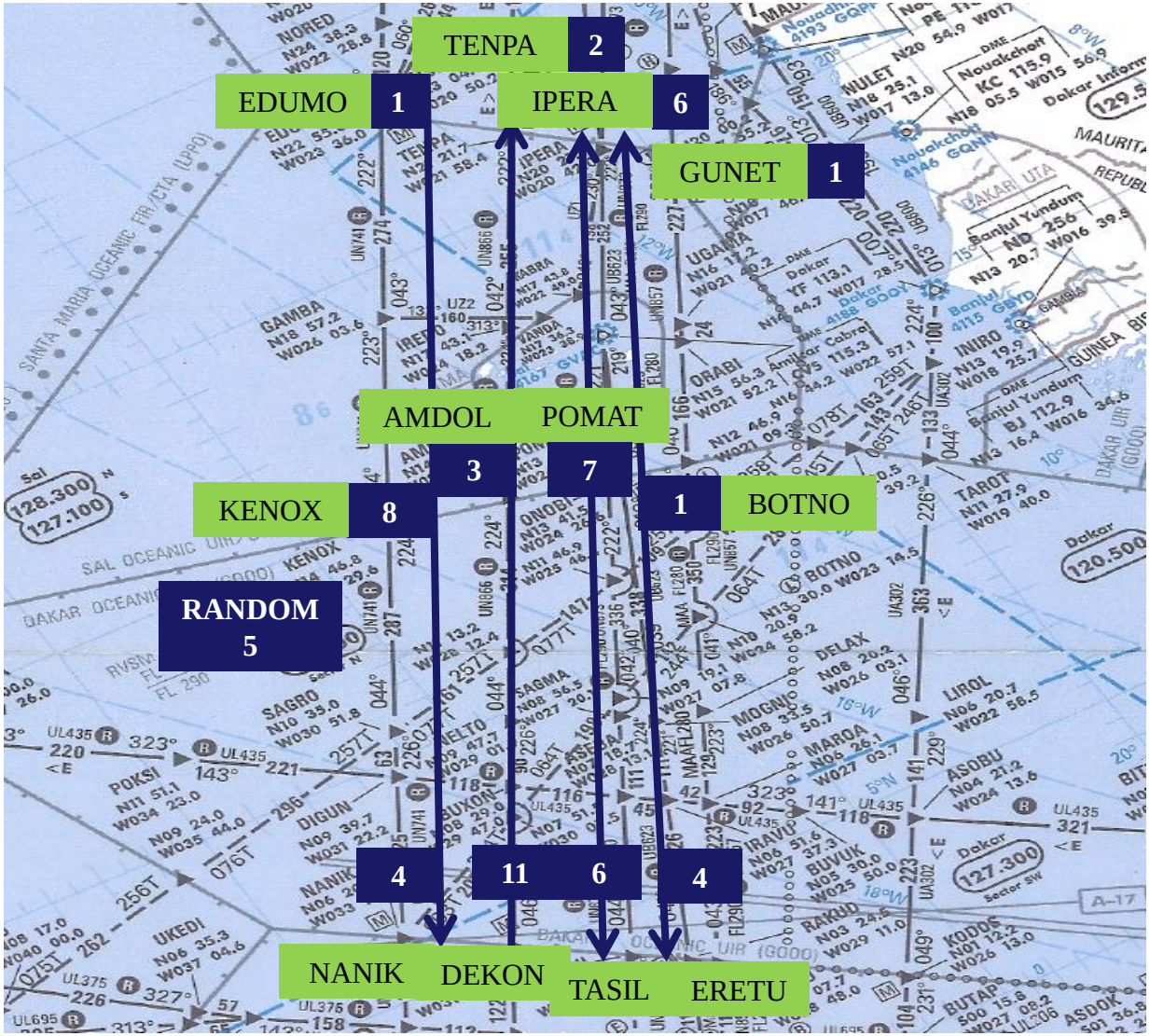
Distribution of LHD's per ATS route



Percentage of LHD's per ATS route



Distribution of LHD per Fix Point



Average of LHD´s per route and number of movements

Route	UN741	UN866	UN873	UN857	RANDOM
Number of movements	5.009*	8.237*	15.129*	4.202*	292*
Number of LHD reported	13	16	20	6	5
% of LHD	0.25	0.19	0.13	0.14	1.71

*** THE AIR TRAFFIC MOVEMENTS REFLECTED IN THIS STUDY ARE:**

- **ALL AIRCRAFTS USING UN741, UN866, UN873 AND UN857 WHOSE FLIGHT PLANS CONTAINS INFORMATION ABOUT EDUMO, TENPA, IPERA AND GUNET FIX POINTS.**
- **AIRCRAFT USING THE RANDOM ROUTE.**

Characteristics of the LHD

All the LHD's were reported by ACC's

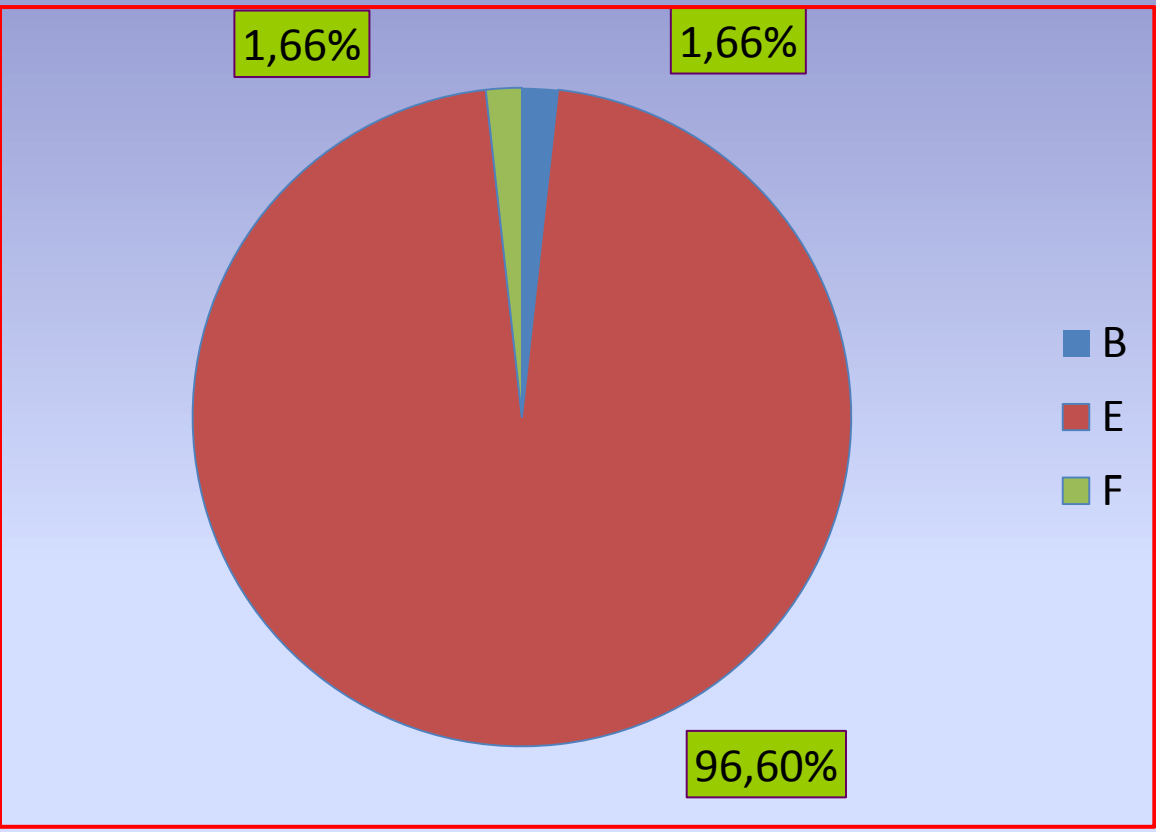
58 LHD's notified are due to operational coordination errors

01 LHD notified is due to flight crew climbed without ATC Clearance.

In 01 LHD the OLDI link presented technical issues

07 outcomes of the investigated LHD's were transmitted to SATMA

LHD'S CLASSIFICATION



APPENDIX D – LHD taxonomy

Code	LHD Cause
	Operational Errors
A	Flight crew failing to climb/descend the aircraft as cleared *Example: Aircraft A was at FL300 and assigned FL360. A CLAM alert was seen as the aircraft passed FL364. The Mode C level reached FL365 before descending back to FL360.*
B	Flight crew climbing/descending without ATC Clearance *Example: At 0648, Aircraft A reported leaving cruise level FL340. The last level clearance was coincident with STAR issue at 0623, when the flight was instructed to maintain FL340. ATC was applying vertical separation between Aircraft A and two other flights. The timing of the descent was such that Aircraft A had become clear of the first conflicting aircraft and there was sufficient time to apply positive separation with the other.*
C	Incorrect operation or interpretation of airborne equipment (e.g. incorrect operation of fully functional FMS, incorrect transcription of ATC clearance or re-clearance, flight plan followed rather than ATC clearance, original clearance followed instead of re-clearance etc) *Example: The aircraft was maintaining a flight level below the assigned altitude. The altimeters had not been reset at transition. The FL assigned was 350. The aircraft was maintaining FL346 for in excess of 4 minutes.*
D	ATC system loop error; (e.g. ATC issues incorrect clearance or flight crew misunderstands clearance message. Includes situations where ATC delivery of operational information, including as the result of hear back and/or read back errors, is absent, delayed, incorrect or incomplete, and may result in a loss of separation.) *Example: All communications between ATC and aircraft are by HF third party voice relay. Aircraft 1 was maintaining FL360 and requested FL380. A clearance to FL370 was issued, with an expectation for higher levels at a later point. A clearance was then issued to Aircraft 2 to climb to FL390, this was correctly read back by the HF operator, but was issued to Aircraft 1. The error was detected when Aircraft 1 reported maintaining FL390.*
E	Coordination errors in the ATC to ATC transfer or control responsibility as a result of human factors issues (e.g. late or non-existent coordination, incorrect time estimate/actual, flight level, ATS route etc not in accordance with agreed parameters) *Example 1: Sector A coordinated Aircraft 1 to Sector B at FL380. The aircraft was actually at FL400.* *Example 2: The Sector A controller received coordination on Aircraft 1 for*
F	Coordination errors in the ATC to ATC transfer or control responsibility as a result of equipment outage or technical issues *Example: Controller in FIR A attempts to send AIDC message to coordinate transfer of aircraft at FL320. Messaging unsuccessful and attempts to contact adjacent FIR by telephone fail. Aircraft contacts adjacent FIR without coordination being completed.*

Detail of the operational coordination errors (56 LHD´s)

30 LHD´s are due to entry into airspace at incorrect Flight Level

01 LHD is due to entry into airspace at incorrect estimate & Flight Level

11 LHD´s are due to total lake of data (traffic without estimate over the boundary fix point)

14 LHD´s are due to no revision by the transferring ACC of the estimate over the boundary fix point

2 LHD´s are due to estimate for different COP

1 LHD is due to flight crew climbed without ATC Clearance.

1 LHD is due to technical issues

Main keys of the LHD´s Monitoring Team report

Most of reported LHD´s are due to operational coordination error between adjacent ACC´s

The main coordination error is entry into airspace at incorrect flight level

Except Canary ACC, any other region sent the results of internal investigation to SATMA indicating causes, conclusions and recommendations.

Special case of LHD

Near lose of separation over the transfer point

Altitude Deviation Form

Report to SATMA of an altitude deviation of 300ft or more, including those due to TCAS, Turbulence and Contingency Events

1. Today's date :**14/03/12**	2. Reporting Unit :**SAL ACC**		
DEVIATION DETAILS			
3. Operator Name: **N590RA**	4. Call Sign: **N590RA**	5. Aircraft Type: **FA50**	6. Mode C Displayed: **YES**
7. Date of Occurrence: **23/02/12**	8. Time UTC: **18:19**	9. Occurrence Position (lat/long or Fix) :**2305N02346W**	
10. Cleared Route of Flight: **RANDOM**			
11. Cleared Flight Level:**320**	12. Estimated Duration at Incorrect Flight Level (seconds): Estimate at	13. Observed Deviation: **+5000FT**	
14. Other Traffic Involved: **NO**			
15. Cause of Deviation (*brief title*): **LEVEL BUST (PILOT ERROR)**			
AFTER DEVIATION IS RESTORED			
16. Observed/Reported Final Flight Level*:**370** *Please indicate the source of information – Mode C/Pilot: **PILOT**	Mark the appropriate box 17. Is the FL above the cleared level:	19. Did this FL comply with the ICAO Annex 2 Tables of Cruising Levels? **YES**	

NARRATIVE
20. Detailed Description of Deviation (*Please give your assessment of the actual track flown by the aircraft and the cause of the deviation.*)
THE TRAFFIC HAS BEEN COORDINATE BY SAL TO CANARIES ACC AT FL 320. THE PILOT DID NOT COMPLY WITH ATC CLEARANCE AND CLIMBED TO FL370 ORIGINATING THE MISS COORDINATION

AESA
AGENCIA ESTATAL DE SEGURIDAD AÉREA

SISTEMA DE NOTIFICACIÓN DE SUCESOS

Formulario de Notificación de Sucesos. Tipo V: General.

Código:	SNS-FO-05
Revisión:	2.0
Fecha:	04/05/2008

Esta notificación no tiene la naturaleza de denuncia ni puede dar lugar a la determinación de responsabilidades, salvo en supuestos de dolo o negligencia grave

Enviar a: Apartado de Correos 59181, 28080 Madrid; e-mail sucesos.aesa@fomento.es o fax: 913019812 (Notificación según RD 1334 / 2005). Si considera el hecho a notificar como accidente o incidente grave, no utilice este formulario y contacte con la CIAIAC llamando al teléfono 915978960 (24H) (Ley 21/2003, de 7 de julio, de Ley de Seguridad Aérea)

TITULO DEL SUCESO[1]						**NUMERO DE VUELO[2]**	
FECHA[3]	23/02/2012	**HORA[4]**	18:25	**LOC/POS[5]**	GCCC	**MATRICULAS INVOLUCRADAS[6]**	N590RA – AEA083

DESCRIPCIÓN DEL SUCESO[7]

AEA083 de LEMD a SBSV con ruta: KETID (17:08) – EDUMO (18:10) **a FL370**

N590RA de GVAC a LPAZ con ruta 32317N02400W (18:09) – 2500N02400W – RIPOD (19:03) **a FL320 según estimada**.
Este tráfico llama pasado el 2317N02400W **establecido a FL370**, con lo que ha sido tráfico con el AEA083 en dirección opuesta.

Llamamos a GVAC para confirmar el Nivel de Vuelo a que había sido autorizado este tráfico, y nos confirman que a FL320 y que nadie lo autorizó a subir a FL370.

Confirmamos de nuevo con el N590RA que está a FL370 y después le preguntamos quién lo autorizó a subir, a lo que no obtenemos respuesta alguna y no volvemos a tener contacto más con el.