



Fiji Islands Bureau  
of Statistics

---

# COMPILATION GUIDE

---

# AIRCRAFT STATISTICS

July 2008

## USP Library Cataloguing-in-Publication Data

Aircraft statistics : compilation guide. – Suva, Fiji : Bureau of Statistics, 2008.

p. ; 30 cm.

ISBN 978-982-510-010-2

1. Airlines—Fiji—Statistics 2. Local service airlines—Fiji—Statistics I. Fiji. Bureau of Statistics.

HE9898.5.A6A47 2008

387.7099611

© **Fiji Islands Bureau of Statistics**

Printer: Pacific Print Ltd

### **Enquiries:**

Fiji Islands Bureau of Statistics  
Ratu Sukuna House  
MacArthur Street  
Suva,  
Fiji Islands

P O Box 2221  
Government Buildings  
Suva  
Fiji Islands

Telephone: [679] 3315822  
Fax No.: [679] 3303656  
E-mail: [info@statsfiji.gov.fj](mailto:info@statsfiji.gov.fj)  
Website: [www.statsfiji.gov.fj](http://www.statsfiji.gov.fj)

## **PREFACE**

The compilation guide on aircraft statistics aims to educate users of the data on how statistics on aircraft are compiled by the Economic Statistic Division of the Fiji Islands Bureau of Statistics.

To all of you who have helped compile this publication, I extend to you my sincere gratitude.

Your comments and suggestions on the compilation guide are welcome.

T Bainimarama  
Government Statistician

## **REPRODUCTION OF MATERIAL**

Any table or material published in this report maybe reproduced and published with the Fiji Islands Bureau of Statistics' prior approval. However, the source of information should always be identified and acknowledged in all modes of presentation.

## **NOTES**

1 Total values are subject to rounding errors.

2 Key to Abbreviations:

FIBOS	Fiji Islands Bureau of Statistics
FSIC	Fiji Standard Industrial Classification
KG	Kilograms
KM	Kilometre
PAX	Passengers
NAN/LAX	Nadi/Los Angeles
SAS	Statistical Analysis System

## CONTENTS

	Page No
Preface	
Notes	
1.0 Introduction	5
1.1 Overview	5
1.2 Purpose	5
1.3 Need for Aircraft Statistics	
2.0 Methodology	5
2.1 Legal Basis	5
2.2 Scope and Coverage	5
2.3 Reference Period	5
2.4 Data Collection	5
2.5 Data Verification	6
2.6 Data Processing	
3.0 Results	7
4.0 Data Dissemination	10

### LIST OF TABLES

#### Table No

1	Regular Operation of Local Airlines	8
2	Local Airlines: Revenue Tonne - Km Performed	9

### LIST OF APPENDICES

#### Appendix No

I	Sample Return	11
II	Classification	12

## **1.0 INTRODUCTION**

### **1.1 Overview**

Aircraft statistics provides information on schedule and non-schedule air transport services of Fijian owned airlines. It is compiled quarterly. The sum of the four quarters gives the annual data.

### **1.2 Purpose**

The main reason for the Fiji Islands Bureau of Statistics (FIBOS) compiling the aircraft statistics is to use it as an indicator in estimating the performance of the air transport sector when compiling the Gross Domestic Product of Fiji.

### **1.3 Need for Aircraft Statistics**

The major users of aircraft statistics are the FIBOS and the Reserve Bank of Fiji. The aircraft statistics are also needed for economic policy formulation, market information and general economic research.

## **2.0 METHODOLOGY**

The methodology used for collecting, compiling and disseminating aircraft statistics every quarter is described below:

### **2.1 Legal Basis**

The aircraft statistics are compiled under the provisions of the Statistics Act 1961 (Cap 71). This Act protects the confidentiality of the information submitted to FIBOS by the companies as well as stipulates the submission of the data by them.

### **2.2 Scope and Coverage**

The coverage of the aircraft statistics compilation extends to all establishments operating in the air transport industry as defined by the Fiji Standard Industrial Classification (FSIC) 2004 (refer Appendix II). Services provided by the air transport industry includes, transport of passengers or freight by air over regular routes and on regular schedules as well as non-scheduled transport of passengers or freight by air.

### **2.3 Reference Period**

The companies submit data for each month. FIBOS compiles and releases the data quarterly. There are four quarters in a year: Quarter 1 ended 31<sup>st</sup> March, Quarter 2 ended 30<sup>th</sup> June, Quarter 3 ended 30<sup>th</sup> September and Quarter 4 ended 31<sup>st</sup> December.

### **2.4 Data Collection**

Local Airlines provide, through monthly returns information to FIBOS. For example, if an airline submits a return for the month of June 2008, it would be -

<b><u>The variables the airline reports on</u></b>	<b><u>Information on the variable the airline gives<sup>1</sup></u></b>	<b><u>What the information on the variable means</u></b>
Country	Los Angeles	Flight to Los Angeles
Aircraft	B747	The type of aircraft used for the flight to Los Angeles.
Sector/Route	NAN/LAX	The port of departure of B747 (in this case Nadi) and the port of arrival (in this case Los Angeles).
Stage length	10,000	The distance flown in kilometres (KM) by B747 from Nadi to Los Angeles.
Block times/Hours flown	12.55	The time flown (in hours and minutes) from when B747 leaves the ground at departure in Nadi and lands at the port of arrival in Los Angeles.
Services/Trips	4	The number of flights made from Nadi to Los Angeles by B747 in the month of June.
Payload capacity <sup>2</sup>	400,000	Total capacity (inclusive of passenger and freight) in kilogram (KG) from Nadi to Los Angeles on the 4 services/trips made in June on B747.
Seat capacity	4000	Total number of seats available on the NAN/LAX sector/route on the 4 services/trips in June on B747.
PAX	2000	Total number of passengers that took the flight from Nadi to Los Angeles on the 4 services/trips in June on B747.
Cargo	20,000	Total cargo in kilogram (KG) from Nadi to Los Angeles on the 4 services/trips made in June on B747.
Mail	100	Total mail in KG from Nadi to Los Angeles on the 4 services/trips made in June on B747.

Similarly the airline will report for the trip made from Los Angeles to Nadi, Suva to Tonga i.e. the airline submits data for each lag it flies. Likewise all airlines will report on their operations.

The returns are designed by the airlines themselves so differ slightly in format but the information submitted by all the airlines is similar since those are the information required by the FIBOS (refer Appendix I).

## 2.5 Data Verification

Once the returns are received in the office, scrutiny and editing of the data contained in them follows. Errors and omissions if found, calls for more correspondence or telephone calls in an attempt to obtain complete and correctly filled up returns which are then placed in files and passed on for data entry.

## 2.6 Data Processing

After edited data are entered into a pre-set Statistical Analysis System (SAS) screen they are processed using the same software. Information Technology Business Unit prepares programs based on specifications given by the Economic Statistics Division.

SAS then calculates the variables to be reported on, thus:

<sup>1</sup> The numbers given are fictitious solely to enable the reader to understand the methodology better. Statistics Act prohibits the release of unit information.

<sup>2</sup> Payload capacity is always calculated by the airline companies since its calculation involves the type of aircraft, the destination it is flying to, fuel required etc.

## A Regular operation of local airlines

(refer Table 1 under Results)

<b>Reporting variable</b>	<b>Calculation methodology</b>
PAX	Actual number travelled as stated in the return
PAX KM performed	The sum of PAX * stage distance ie the sum of products obtained by multiplying the number of passengers carried on each flight by stage distance. The resultant figure is equal to the number of kilometres travelled by all passengers.
Seat KM available	The sum of seat available * stage distance ie the sum of products obtained by multiplying the number of seats available on each stage flight by the stage distance.
PAX Load Factor	PAX KM performed/seat KM available *100

## B Local airline: revenue tonnes-km performed

(refer Table 2 under Results)

<b>Reporting variable</b>	<b>Calculation methodology</b>
PAX tonne KM performed	$PAX\ KM * 105^3 / 1016^4$
Freight tonne KM performed	Total freight * the sum of stage distance / $1016^4$
Mail tonne KM performed	Total mail * the sum of stage distance / $1016^4$
Total tonne km performed	Sum of PAX tonne KM performed, Freight tonne KM performed, and Mail tonne KM performed
Tonne-KM available	Multiply payload capacity available on each stage flight by the stage distance / $1016^4$
Load factor	Total tonne km performed / tonne-km available *100

Load factor may not be a good indicator of the operational efficiency of airlines given that space is more important in these calculations

## 3.0 RESULTS

The following two tables contain the results of the aircraft statistics compilation:

<sup>3</sup> After studies done, 105 KG is taken as the average weight per PAX: 85 KG is taken as the average weight of the passenger and 20 KG is taken as the average weight of the luggage.

<sup>4</sup> To convert into Tonnes

**TABLE 1** **REGULAR OPERATION OF LOCAL AIRLINES**

Period	International Flights				Domestic Flights				
	Passenger	Passenger km Performed	Seat km Available	Passenger Load Factor %	Passenger	Passenger km Performed	Seat km Available	Passenger Load Factor %	
<b>Yearly</b>									
1994	272,550	955,790	1,698,014	56	219,296	29,682	70,696	42	
1995	310,746	1,183,454	2,370,306	50	265,981	36,206	84,715	43	
1996	302,398	1,196,597	2,866,421	42	284,955	36,466	78,672	46	
1997	329,790	1,343,716	2,713,392	50	301,197	37,758	80,818	47	
1998	383,699	1,508,469	2,404,854	63	293,248	39,153	91,573	43	
1999	438,346	1,838,264	3,418,331	54	286,561	47,023	110,643	42	
2000	342,476	1,428,057	2,487,086	57	205,431	39,523	87,702	45	
2001	365,136	1,533,743	2,457,689	62	194,979	38,809	79,708	49	
2002	465,606	1,959,536	3,057,443	64	187,495	30,077	61,943	49	
2003	537,766	2,232,942	8,780,520	25	209,214	34,360	68,258	50	
2004	594,736	2,350,322	5,696,468	41	226,117	36,445	73,280	50	
2005	597,217	2,287,613	5,389,449	43	219,269	36,939	73,166	51	
2006	628,578	2,384,805	5,216,334	46	213,717	39,366	78,863	50	
2007	618,932	2,345,197	5,012,165	47	177,969	25,977	45,606	58	
<b>Quarterly</b>									
2006	Mar	140,643	530,511	1,208,628	44	49,568	8,872	18,239	49
	Jun	140,891	530,776	1,208,946	44	49,320	8,600	17,910	48
	Sep	185,193	716,486	1,412,888	51	60,772	10,966	21,009	52
	Dec	161,851	607,032	1,385,872	44	54,057	10,928	21,705	50
2007	Mar	152,290	592,744	1,275,598	46	42,806	7,002	13,260	53
	Jun	140,012	536,579	1,243,454	43	42,810	6,031	9,969	61
	Sep	169,860	648,751	1,289,669	50	46,902	6,238	11,117	56
	Dec	156,770	567,123	1,203,444	47	45,451	6,706	11,260	60

**TABLE 2 LOCAL AIRLINES: REVENUE TONNE - KM PERFORMED**

Period	International Flights						Domestic Flights						
	Tonne-KM Performed [000]				Tonne-km Available	Load Factor %	Tonne-KM Performed [000]				Tonne-km Available	Load Factor %	
	Passenger	Freight	Mail	Total			Passenger	Freight	Mail	Total			
<b>Yearly</b>													
1994	86,021	49,741	420	136,182	473,434	29	2,671	144	8	2,823	13,649	21	
1995	106,511	66,176	522	173,209	636,995	27	3,258	131	8	3,397	13,236	26	
1996	107,693	66,866	481	175,040	677,951	26	3,282	158	9	3,449	14,975	23	
1997	120,934	67,078	563	188,575	728,748	26	3,397	169	14	3,580	16,139	22	
1998	135,767	68,437	510	204,714	766,058	27	3,524	174	1	3,699	19,707	19	
1999	165,444	100,124	685	266,253	983,095	27	4,142	178	-	4,321	22,585	19	
2000	128,525	78,913	637	208,075	492,428	42	3,558	137	-	3,695	16,892	22	
2001	138,037	65,532	825	201,394	479,157	43	3,493	178	-	3,671	13,496	27	
2002	176,359	67,356	898	244,614	548,995	45	2,707	189	-	2,896	11,241	26	
2003	200,965	62,795	3,072	266,832	665,193	40	3,092	230	2	3,324	12,457	27	
2004	211,529	75,258	805	287,592	750,316	38	3,281	137	-	3,417	13,719	25	
2005	205,885	93,409	927	300,221	700,217	43	3,324	142	-	3,465	13,501	26	
2006	214,633	89,945	826	284,402	666,882	43	3,543	150	62	3,692	11,805	31	
2007	211,068	69,573	801	281,442	632,191	45	2,238	124	13	2,467	8,068	31	
<b>Quarterly</b>													
2006	Mar	47,746	16,912	224	64,881	151,807	43	798	37	31	834	2,845	29
	Jun	47,770	16,912	224	64,905	151,849	43	774	35	31	809	2,800	29
	Sep	64,484	18,893	168	83,545	187,660	45	987	37	-	1,024	3,072	33
	Dec	54,633	16,228	210	71,071	175,566	40	984	41	-	1,025	3,088	33
2007	Mar	53,347	15,128	196	68,672	155,887	44	630	35	-	665	2,394	28
	Jun	48,292	17,826	198	66,316	153,615	43	543	26	10	570	1,813	31
	Sep	58,388	21,920	197	80,504	170,010	47	561	29	-	591	1,919	31
	Dec	51,041	14,699	210	65,950	152,679	43	604	34	3	641	1,942	33

#### **4.0 DATA DISSEMINATION**

Aircraft statistics are released on a quarterly basis. An Advance Release Calendar posted on the FIBOS Website gives information on the date the aircraft statistics are going to be released. Data are disseminated via:

- *Quarterly press release*: contains tables and commentary.
- *Website*: The same data that is released to the media is posted to the FIBOS Website [www.statsfiji.gov.fj](http://www.statsfiji.gov.fj) on the first working day of every quarter.
- *Key Statistics*: this is a quarterly publication of the FIBOS and includes the same table that is posted on the FIBOS website.
- *Email*: Data is sent in Portable Document Format (PDF) format on request by users.

## APPENDIX I – SAMPLE RETURN

COUNTRY	AIRCRAFT	SECTOR	STAGE LENGTH	BLOCK TIMES	SERVICES	PAYLOAD CAPACITY	SEAT CAPACITY	PAX	CARGO	MAIL
Los Angeles	B747	NAN/LAX								
		LAX/NAN								
Australia	B767	NAN/SYD								
		SYD/NAN								
		NAN/MEL								
		MEL/NAN								
		NAN/BNE								
		BNE/NAN								

Note: Ferry and base check and training flights are not included since they are non-revenue operations

## APPENDIX II – CLASSIFICATION

The highlighted industry, classified according to the FSIC 2004, has been included in the aircraft statistics compilation.

### TABULATION CATEGORY I: TRANSPORT, STORAGE AND COMMUNICATIONS

This Tabulation Category includes all units mainly engaged in providing passenger or freight transport whether scheduled or not, by road, water or air. Also included are auxiliary activities such as terminal facilities, car parking, stevedoring, harbour services, navigation services, airport operation or space port operation, booking, travel, freight forwarding, crating or customs agency services. Storage facilities, postal, courier and telecommunication services too are included.

DIVISION	GROUP	CLASS	SUB-CLASS	DESCRIPTION
<b>60</b>				<b>LAND TRANSPORT</b>
	<b>602</b>	<b>6021</b>	<b>60211</b>	<b>Bus transport</b> This sub-class includes regular urban, suburban or interurban transport of passengers on scheduled bus and coach routes following a published timetable and picking up and setting down passengers at stops indicated in these timetables. Included are also transport activities as the operation of school buses, town-to-airport lines and sightseeing buses.
		<b>6022</b>	<b>60221</b>	<b>Taxi</b> This sub-class includes taxi operation.
			<b>60222</b>	<b>Mini vans</b> This sub-class includes mini van operation.
			<b>60223</b>	<b>Rental and hire cars which are either self-driven or chauffeur driven; chartered land transport tour operators and chartered buses</b> This sub-class includes rental of private cars either self driven or with operators, charters, excursions and other occasional coach services etc <b>Exclusions:</b> Ambulance transport is classified in sub-class 85199.
		<b>6023</b>	<b>60231</b>	<b>Freight Transport by road</b> This sub-class includes all freight transport operation by road e.g. trucking of a great variety of goods like logging haulage, stock haulage, refrigerated haulage, furniture removal etc. <b>Exclusions:</b> Courier service is classified in sub-class 64121.
<b>61</b>				<b>WATER TRANSPORT</b>
	<b>611</b>	<b>6110</b>	<b>61101</b>	<b>Sea and coastal water transport</b> This sub-class includes transport of passengers or freight overseas and coastwise.
	<b>612</b>	<b>6120</b>	<b>61201</b>	<b>Inland water transport</b> This sub-class includes transport of passengers or freight via rivers, canals and other inland waterways.
<b>62</b>				<b>AIR TRANSPORT</b>
	<b>621</b>	<b>6210</b>	<b>62101</b>	<b>Scheduled and non-scheduled air transport</b> This sub-class includes transport of passengers or freight by air over regular routes and on regular schedules as well as non-scheduled transport of passengers or freight by air.

<b>63</b>	<b>630</b>			<b>SUPPORTING AND AUXILIARY TRANSPORT ACTIVITIES; ACTIVITIES OF TRAVEL AGENCIES</b>
		<b>6301</b>	<b>63011</b>	<b>Cargo handling and stevedoring</b> This sub-class includes the loading and unloading of goods or passengers' luggage irrespective of the mode of transport used for transportation. Stevedoring is included.
		<b>6302</b>	<b>63021</b>	<b>Storage and warehousing</b> This sub-class includes the operation of storage facilities for all kinds of goods in grain elevators, general merchandise warehouses, refrigerated warehouses, etc. Warehousing of furniture, automobiles, lumber gas and oil, chemicals, textiles, food and agricultural products, etc. Also included is storage of goods in foreign trade zones. <b>Exclusions:</b> Operation of parking facilities for motor vehicles is classified in sub-class 63031.
		<b>6303</b>	<b>63031</b>	<b>Other supporting transport activities</b> This sub-class includes a variety of activities related to transport of passengers or freight via different modes of transport. They include the operation of terminal facilities such as bus stations etc, parking lots or garages, traffic control activities, navigation, pilotage and berthing activities, lighterage, salvage activities, ground service activities on airfields etc.
		<b>6304</b>	<b>63041</b>	<b>Activities of travel agencies and tour operators; tourist assistance activities nec</b> This sub-class includes furnishing travel information, advice and planning, arranging tours, accommodation and transportation for travellers and tourists, furnishing tickets etc. Also included are tourist assistance activities not elsewhere classified, such as carried on by tourist guides.
		<b>6309</b>	<b>63099</b>	<b>Activities of other transport agencies</b> This sub-class includes forwarding of freight, organisation or arrangement of transport on behalf of the shipper or consignee, receiving and acceptance of freight, transport document preparation, consolidation and break-bulk of freight, freight brokerage, custom house brokerage, bill auditing and freight rate information, brokerage for ship and aircraft space, packing and crating and unpacking and inspection, weighing and sampling of freight etc. <b>Exclusions:</b> Courier activities utilising public transport is included in sub-class 64121
<b>64</b>				<b>POST AND TELECOMMUNICATIONS</b>
	<b>641</b>			<b>Post and Courier activities</b>
		<b>6411</b>	<b>64111</b>	<b>National post activities</b> This sub-class includes the pick-up, transport and delivery (domestic or international) of mail and parcels. The activity involves sale of postage stamps, collection of mail and parcels from public letterboxes or from post offices and distribution and delivery. Included are such activities as mail sorting, mailbox rental etc
		<b>6412</b>	<b>64112</b>	<b>Courier activities other than national post activities</b> This sub-class includes the pick-up, transport and delivery of letters and mail-type, usually small parcels and packages. One or more modes of transport may be involved and the activity may be carried out with either self-owned transport media or via public transport.
	<b>642</b>	<b>6420</b>	<b>64201</b>	<b>Telecommunications</b> This sub-class includes the transmission of sound, images, data or other information to the public via wire, cables or radio. Included are cable service (communication); communication channel service including multi-purpose as well as network communication channel service; radio telephone and radio relay station operation; satellite communication service; telecommunication, telegram and telegraph service; telephone exchange operation and telephone services; teleprinter services; television relay station operation and telex services. Also included is the maintenance of the network. <b>Exclusions:</b> Production of radio and television programmes, whether or not combined with broadcasting is included with sub-class 92131

---

**Website:** [www.statsfiji.gov.fj](http://www.statsfiji.gov.fj)

---

## FIJI ISLANDS BUREAU OF STATISTICS - INFORMATION CENTRES:

### Suva [Head Office]

#### Postal Address

P O Box 2221  
Government Buildings  
Suva, Fiji Islands

Phone: [679] 3315822 Extension 126 [Library]  
Fax: [679] 3303656

#### Location

5<sup>th</sup> floor Ratu Sukuna House  
MacArthur Street  
Suva

Email: [info@statsfiji.gov.fj](mailto:info@statsfiji.gov.fj)

### Nadi Office

P O Box 360  
Nadi, Fiji Islands

Phone/Fax: [679] 6705959

1<sup>st</sup> floor G T Plaza  
Vunavou Street  
Nadi

Email: [fibosnadi@connect.com.fj](mailto:fibosnadi@connect.com.fj)

### Ba Office

P O Box 3950  
Ba, Fiji Islands

Phone: [679] 6673722  
Fax: [679] 6675566

2<sup>nd</sup> floor Koronubu House  
Koronubu Street  
Ba

Email: [fibosba@connect.com.fj](mailto:fibosba@connect.com.fj)

### Labasa Office

P O Box 1900  
Labasa, Fiji Islands

Phone/Fax: [679] 8813188

1<sup>st</sup> floor, Local Timber Building  
Damanu Street  
Labasa

Email: [fiboslabasa@connect.com.fj](mailto:fiboslabasa@connect.com.fj)