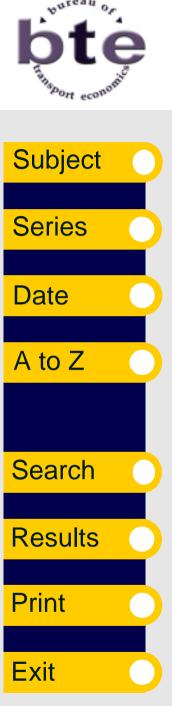
BTE Publication Summary

General Aviation Survey Preliminary Results

Working Paper

During 1994 the BTCE conducted a series of surveys of the General Aviation (GA) industry. These were the BTCE Survey of General Aviation 1994 (Air Operator Certificate Holders), which covered commercial GA operators and the BTCE Survey of General Aviation 1994 (Aircraft Owners), which covered business fliers and recreational fliers who own aircraft. This Paper contains the preliminary results of these surveys.







BUREAU OF TRANSPORT AND COMMUNICATIONS ECONOMICS

GENERAL AVIATION SURVEY

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The cooperation of the GA industry in responding to the BTCE General Aviation Survey 1994 is gratefully acknowledged. The BTCE appreciates the assistance provided by industry associations in the design and conduct of the survey, as well as the time and care taken by respondents in answering the questionnaires.



GENERAL AVIATION SURVEY

PRELIMINARY ESTIMATES

CORRIGENDUM

Due to identification of a data input error, the preliminary estimates of average income and average profit for the aerial agriculture group and 'all commercial groups' have been revised. The revisions are shown in bold text below.

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Income item	Charter	Flying training	Aerial agriculture	Aerial work ^a	Hire ^b	Mixed ^c	Al commercia groups ^c
Averages			Ren de la A				
Charter	400 987	15 338	905	34 393	21 114	113 437	185 844
Flying training	11 227	244 089	0	5 656	13 022	74 966	56 228
Aerial agriculture	832	0	374 014	1 169	1 264	8 816	41 638
Aerial work ^a	1 403	519	0	584 714	42 966	112 614	110 556
Hire ^b	1 688	37 690	747	3 103	160 982	41 448	14 644
Other flying ^e	121	844	2 093	0	224	3 195	1 385
Non-flying GA-related ^f	65 590	2 285	14 251	4 367	22 596	12 841	27 538
Otherg	3 068	4 315	4 690	341 672	25 145	45 019	86 673
Total income	484 916	305 082	396 700	975 073	287 314	412 336	524 506
Median ^h							
Total income	176 793	200 579	211 783	243 268	47 260	208 397	134 870

a. Includes community service flying.

b. Includes hiring out of aircraft to other commercial operators and hiring out of aircraft for private flying.

c. Includes operators with no dominant activity.

d. Includes all specified groups plus operators who provided insufficient information to allow allocation to an activity group.

e. Includes income from provision of pilots/crew, winch launching of gliders and other unspecified flying income.

f. Includes gross profit from GA maintenance/engineering for others, sale of aircraft and parts as a dealer, airshows, membership fees/subscriptions, ground school income, fuel concession income, etc.

g. Includes net profit/loss on sale of non-current assets, interest income, rent, gross profit from bar/accommodation, government grants, donations, sponsorship, etc.

h. Median income indicates that income above which half the population of operators has higher income and below which half has lower income.

Note Individual numbers may not add to totals due to rounding.

Source BTCE estimates.

Profit

Average profit before tax for each of the activity groups in 1992–93 is presented in table 8.

1

In 1992–93, the overall position for all commercial GA groups was an average **loss** before tax of just over **\$16 000**. This position varied widely by activity group, from an average loss before tax of over \$215 000 for the mixed group to an average profit before tax of **around \$150 000** for the **hire group**. It should be noted that these are survey estimates and that the actual population averages therefore may vary.

Activity group	
Charter	7 778
Flying training	-80 584
Aerial agriculture	21 616
Aerial work ^a	45 744
Hire ^b	152 251
Mixed ^c	-216 648
All commercial groups ^d	-16 364

d. Includes all specified groups plus operators who provided insufficient information to allow allocation to an activity group.

Note Median profit is not available. It cannot be derived by deducting median expenses from median income.

Source BTCE estimates.

During 1994 the Bureau of Transport and Communications Economics (BTCE) conducted a series of surveys of the General Aviation (GA) industry:

- BTCE Survey of General Aviation 1994 (Air Operator Certificate Holders), which covered commercial GA operators
- BTCE Survey of General Aviation 1994 (Aircraft Owners), which covered business fliers and recreational fliers who own aircraft.

These surveys requested information that would provide a 'snapshot' of the industry for the financial year 1992-93. Some *preliminary estimates* based on the results from these surveys are provided in this Working Paper. The first section presents results for Air Operator Certificate Holders, while aircraft owners are covered in the second section. It should be noted that these preliminary estimates may be revised once our analysis is completed. The final report of the survey will detail the statistical confidence for the estimates.

AIR OPERATOR CERTIFICATE HOLDERS

Structure

ir Operator Certificate Holders are individuals or organisations licensed to carry out commercial aviation activities. At the beginning of 1994, it is estimated that there were 1009 Air Operator Certificate Holders licensed to carry out commercial GA activities in Australia (not including those operators licensed to carry out both GA and regular public transport airline activities). Table 1 provides details of the numbers of licence holders by type of licence and region of Australia.

Air operator Ni certificate type	SW & ACT	Vic & Tas	Qld	SA	WA	NT	Aust
Aerial work only	16	5	15	6	14	3	59
Charter only	47	22	35	24	25	8	161
Aerial work and charter	91	65	111	23	46	25	361
Aerial work and flying training	8	7	5	5	4	0	29
Aerial work and aerial agriculture	41	15	17	7	13	1	94
Aerial work, charter and flying training	87	55	52	15	19	4	232
Aerial work, charter and aerial agriculture	25	7	16	3	3	2	56
Aerial work, charter, flying training							
and aerial agriculture	5	4	6	0	2	0	17
Total	320	180	257	83	126	43	1009

TABLE 1 AIR OPERATOR CERTIFICATE HOLDERS, BY TYPE AS AT 31 JANUARY 1994

(number of licence holders)

Notes 1. The BTCE survey sampled Air Operator Certificate Holders on the CAA Register for 1994 because a record of operators for 1992–93 was not available.

2. Excludes an estimated 81 Air Operator Certificate Holders who had ceased business but had not yet been removed from the CAA Register. Includes an estimated 41 operators who carried out mainly non-commercial activity.

Source BTCE estimates using CAA Register of Air Operator Certificate Holders, 31 January 1994.

While operators may be licensed to undertake a number of activities, their actual hours flown may be mainly in one activity. For the purposes of the analysis, operators were grouped according to their dominant activity (normally defined as the activity which contributed at least sixty per cent of their income). Table 2 provides details of the average and median number of hours flown by operators in each of these activity groups in 1992–93.

In terms of hours flown, the operators in the flying training group had the highest average hours flown per annum, and those in the charter group had the lowest. For each of the activity groups median hours flown was considerably lower than average hours, suggesting that in each group a relatively small number of operators flew a large number of hours.



TABLE 2 HOURS FLOWN, 1992–93

Activity group	Average hours	Median ^a hours
Charter	724	256
Flying training	2 028	1 409
Aerial agriculture	777	474
Aerial work ^b	1 434	607
Hirec	730	242
Mixed ^d	1 550	993
All commercial groups ^e	1 178	502
All groups ^f	1 156	500

a. Median hours indicates that number of hours above which half the population of operators has higher hours and below which half has lower hours.

b. Includes community service flying.

c Includes hiring out of aircraft to other commercial operators and hiring out of aircraft for private flying.

d. Includes operators with no dominant activity.

e. Includes all groups specified above plus operators who provided insufficient information to allow allocation to an activity group.

f. Includes all commercial groups plus those operators who carried out mainly non-commercial activity (such as flying associated with a business but not hire or reward).

Source BTCE estimates.

The degree to which total hours flown was spread across a range of activities in 1992–93 is indicated in table 3. The average operator in each of the activity groups was involved in at least three other GA activities in addition to their primary activity.

TABLE 3 AVERAGE HOURS FLOWN BY FLYING ACTIVITY, 1992–93

(percentage of total hours)

Activity group	Charter	Flying training	Aerial Igriculture	Aerial work ^a	Hire ^b	Other ^c
Charter	85	9	0	3	2	1
Flying training	4	76	0	1	19	1
Aerial agriculture	1	0	95	1	0	2
Aerial work ^a	5	2	0	92	1	1
Hire ^b	6	13	1	7	70	4
Mixed ^d	15	36	1	24	23	2
All commercial groups ^e	24	30	8	26	11	1
All groups ^f	23	29	8	26	11	3

a. Includes community service flying.

b. Includes hiring out of aircraft to other commercial operators and hiring out of aircraft for private flying.

c. Includes business flying, not for hire or reward, and test and ferry.

d. Includes operators with no dominant activity.

e. Includes all groups specified above plus operators who provided insufficient information to allow allocation to an activity group.

f. Includes all commercial groups plus those operators who carried out mainly non-commercial activity (such as flying associated with a business but not for hire or reward).

Note Percentages may not add to 100 due to rounding.

Source BTCE estimates.

The aircraft fleets used by operators to perform these flying hours consist of both owned and leased or hired aircraft. The average and median number of *owned* aircraft per operator in 1992–93 are presented in table 4.

Operators in the mixed group had the largest average and median fleets of owned aircraft, while those in the charter group had the smallest fleet sizes.

Activity group	Average owned aircraft	Median ^a owned aircraft
Charter	1.8	1.0
Flying training	3.4	2.0
Aerial agriculture	3.0	2.1
Aerial work ^b	2.7	2.0
Hirec	2.4	1.2
Mixed ^d	4.0	2.5
All commercial groups ^e	2.6	2.0
All groups ^f	2.5	2.0

TABLE 4 OWNED FLEET, 1992–93

a. Median owned aircraft indicates that number of owned aircraft above which half the population of operators has more owned aircraft and below which half has less owned aircraft.

b. Includes community service flying.

c. Includes hiring out of aircraft to other commercial operators and hiring out of aircraft for private flying.

d. Includes operators with no dominant activity.

e. Includes all groups specified above plus operators who provided insufficient information to allow allocation to an activity group.

f. Includes all commercial groups plus those operators who carried out mainly non-commercial activity (such as flying associated with a business but not for hire or reward).

Source BTCE estimates.

The average and median number of people employed by GA operators in 1992–93 to undertake duties related to GA also varied across activity groups (see table 5). In total, it is estimated that some 6600 people were employed by commercial operators in the GA industry in 1992–93.

Activity group	Average number employed	Median ^a number employed
Charter	4.9	2.0
Flying training	6.4	5.0
Aerial agriculture	4.7	3.2
Aerial work ^b	10.8	5.0
Hire ^c	4.0	2.6
Mixed ^d	9.2	3.8
All commercial groups ^e	6.7	3.0
All groups ^f	6.6	3.0

TABLE 5 EMPLOYMENT, 1992-93

a. Median number employed indicates that number above which half the population of operators has a higher number employed and below which half has a lower number employed.

b. Includes community service flying.

c. Includes hiring out of aircraft to other commercial operators and hiring out of aircraft for private flying.

d. Includes operators with no dominant activity.

e. Includes all groups specified above plus operators who provided insufficient information to allow allocation to an activity group.

f. Includes all commercial groups plus those operators who carried out mainly non-commercial activity (such as flying associated with a business but not for hire or reward).

Notes 1. Total of full-time, part-time and unpaid/voluntary staff.

 Employees allocated according to their main duty only. Includes self-employed owners who are involved in the day-today running of the organisation. Excludes staff employed specifically for business activities that are not directly related to GA.

Source BTCE estimates.

Commercial operator income in 1992–93 is presented in table 6. The highest average and median total income per annum were earned by the aerial work group, while the hire group yielded the lowest.

			(dollars)				
Income item	Charter	Flying training	Aerial agriculture	Aerial work ^a	Hire ^b	Mixed ^c	All commercial groups ^d
Averages							
Charter	400 987	15 338	1 219	34 393	21 114	113 437	192 710
Flying training	11 227	244 089	0	5 656	13 022	74 966	58 305
Aerial agriculture	832	0	503 489	1 169	1 264	8 816	43 177
Aerial work ^a	1 403	519	0	$584\ 714$	42 966	112 614	$114\ 641$
Hire ^b	1.688	37 690	1 006	3 103	160 982	$41 \ 448$	15 185
Other flying ^e	121	844	2 817	0	224	3 195	1 436
Non-flying GA-related ^f	65 590	2 285	$19\ 184$	4 367	22 596	12 841	28 555
Otherg	3 068	4 315	6 322	341 672	25145	45019	89 887
Total income	484 916	305 082	534 037	975 073	287 314	412 336	543 896
Median ^h							
Total income	176 793	200 579	211 783	243 268	47 260	208 397	134 870

TABLE 6 INCOME BY ACTIVITY GROUP, 1992–93

a. Includes community service flying.

b. Includes hiring out of aircraft to other commercial operators and hiring out of aircraft for private flying.

c. Includes operators with no dominant activity.

d. Includes all specified groups plus operators who provided insufficient information to allow allocation to an activity group.

e. Includes income from provision of pilots/crew, winch launching of gliders and other unspecified flying income.

f. Includes gross profit from GA maintenance/engineering for others, sale of aircraft and parts as a dealer, airshows, membership fees/subscriptions, ground school income, fuel concession income, etc.

g. Includes net profit/loss on sale of non-current assets, interest income, rent, gross profit from bar/accommodation, government grants, donations, sponsorship, etc.

h. Median income indicates that income above which half the population of operators has higher income and below which half has lower income.

Note Individual numbers may not add to totals due to rounding.

Source BTCE estimates.

The main expense categories for commercial operators in each of the activity groups are presented for 1992–93 in table 7.

The largest expense category for most activity groups was labour, representing between 21 and 37 per cent of average total expenses. Total government charges accounted for between 3 and 8 per cent of average total expenses (see chart 1).

TABLE 7 EXPENS	······································						
			(dollars)				
Expense item	Charter	Flying training	Aerial agriculture	Aerial work ^a	Hireb	Al Mixed ^c	l commercial groups ^d
Averages							
Fuel ^e	39 995	51 915	44 036	94598	8814	48 049	53 140
Aircraft insurance	$11\ 745$	13 605	21 079	55 240	5 386	26 880	20 749
Aircraft hire	42 020	52 968	8 550	22 543	12 218	22 359	35 567
Labour	107 599	89 094	111 799	255 676	50 472	$132\ 408$	137 532
Maintenance	79 312	60 291	48 702	225 284	24 693	106 599	100 709
Interest	26068	8 687	13 876	$18\ 065$	6 208	24970	19 309
Depreciation	37 222	17178	31640	112 164	12 607	64 833	49 157
Government charges							
Fuel excise ^f	6 990	17400	12437	8104	2 476	$11\ 154$	9 639
FACs	4383	8 030	944	14 339	1 109	9 689	6 845
CAA ^h	6 367	3 281	852	9 977	492	725	5 035
Local govt ⁱ	5 962	1 763	2 111	2 1 2 0	228	348	3 569
Other govti	470	164	910	357	89	142	393
Total govt charges	24 173	30 638	17254	34 896	4394	22.058	25481
Overheads/other ^k	109 004	61 291	$78\ 148$	110 862	10 271	180 828	99 226
Total expenses	477 138	385 666	$375\ 084$	929 329	135 063	628 984	540 870
Median							
Total expenses	88 699	208 533	182 176	360 662	66 996	178 419	140 989

a. Includes community service flying.

b. Includes hiring out of aircraft to other commercial operators and hiring out of aircraft for private flying.

Includes operators with no dominant activity. С.

Includes all specified groups plus operators who provided insufficient information to allow allocation to an activity group. d.

Excludes fuel excise. e.

Includes excise on avgas, avtur and mogas. f.

Includes FAC General Aviation Infrastructure Tariff, FAC landing charges, FAC parking charges, FAC rental. g.

Includes terminal navigation, rescue and firefighting, enroute and meteorological service charges. h.

Includes fixed annual charges, landing charges and rental, as levied by both local government and private airport authorities. i. It was not possible to separately identify charges levied by type of authority.

Includes radio licence fees.

Includes advertising, payments to other organisations for flying training, rental of hangars/office space other than from k airport authorities, association fees, other overheads and other unspecified expenses.

Median expenses indicates that level of expenses above which half the population of operators has higher expenses and below which half has lower expenses.

Note Individual numbers may not add to totals due to rounding.

Source BTCE estimates.

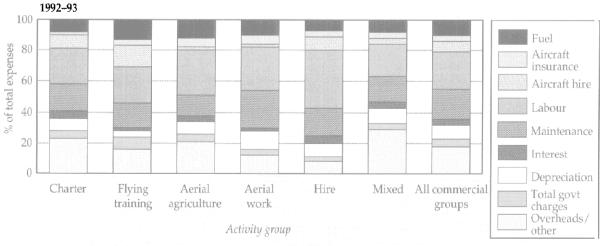


CHART 1 EXPENSE ITEMS AS PERCENTAGES OF AVERAGE TOTAL EXPENSES BY ACTIVITY GROUP,

Note See notes on table 7. Source BTCE estimates.



Average profit before tax for each of the activity groups in 1992–93 is presented in table 8

In 1992–93, the overall position for all commercial GA groups was an average profit before tax of just over \$3 000. This position varied widely by activity group, from an average loss before tax of over \$215 000 for the mixed group to an average profit before tax of almost \$160 000 for the aerial agriculture group. It should be noted that these are survey estimates and that the actual population averages therefore may vary.

TABLE 8 AVERAGE PROFIT BEFORE TAX, 1992–93

(dollars)

Activity group	
Charter	7 778
Flying training	-80 584
Aerial agriculture	158 953
Aerial work ^a	45744
Hire ^b	152 251
Mixed ^c	$-216\ 648$
All commercial groups ^d	3 026

a. Includes community service flying.

b. Includes hiring out of aircraft to other commercial operators and hiring out of aircraft for private flying.

c. Includes operators with no dominant activity.

d. Includes all specified groups plus operators who provided insufficient information to allow allocation to an activity group

Note Median profit is not available. It cannot be derived by deducting median expenses from median income.

Source BTCE estimates.

AIRCRAFT OWNERS

Structure

here were an estimated 5 302 aircraft owners not directly engaged in commercial GA operations (that is, those who did not hold an Air Operator Certificate) at the end of 1993. For the purposes of the BTCE survey, this group of aircraft owners was equated with non-commercial fliers. Table 9 provides details of the number of these aircraft owners by region of Australia.

TABLE 9AIRCRAFT OWNERS, AS AT 31 DECEMBER 1993

State		Number of aircraft owners
NSW and ACT Vic and Tas Qld SA WA NT		1 722 1 202 1 278 371 624 105
Australia		5 302

Source BTCE estimates using CAA Register of Aircraft, 31 December 1993.

Aircraft owners may undertake a number of activities, including hiring their aircraft to non-commercial fliers or commercial GA operators. For the purposes of the analysis, aircraft owners were grouped according to their main activity (that is, the activity which accounted for at least sixty per cent of their hours flown). In terms of hours flown in 1992–93, the aircraft owners in the recreation group had the lowest average and median hours flown per annum, and the hire group the highest (see table 10).



TABLE 10 HOURS FLOWN, 1992–93

Activity group	Average hours	Median ^a hours
Recreation	66	55
Business ^b	142	100
Hiring out aircraft ^c	213	129
All aircraft owners	114	80

a. Median hours indicates that number of hours above which half the population of aircraft owners has higher hours and below which half has lower hours.

b. Defined as flying associated with a business but not for hire or reward.

c. Includes hiring out of aircraft to commercial operators and hiring out of aircraft for private flying.

Source BTCE estimates.

In each activity group, the average aircraft owner used his or her aircraft for both recreational and business purposes, and also hired out his or her aircraft to other parties. Table 11 provides the distribution of total hours across these activities in 1992–93.

TABLE 11 AVERAGE HOURS FLOWN BY FLYING ACTIVITY, 1992–93

(percentage of total hours)

Activity group	Recreation	Business ^a	Hiring out aircraft ^b	Other ^c
Recreation	84	6	4	6
Business ^a	10	86	1	3
Hiring out aircraft ^b	7	5	86	2
All aircraft owners	31	45	21	4
c. Includes community ser	rcraft to commercial op	erators and hiring out of ry, and flying training fo	f aircraft for private flying. r employees.	

For each of the activity groups, the average and median number of *owned* aircraft in 1992–93 are presented in table 12.

TABLE 12OWNED FLEET SIZE, 1992–93

Activity group	Average owned aircraft	Median ^a owned aircraft
Recreation	1.1	1.0
Business ^b	1.2	1.0
Hiring out aircraft ^e	1.2	1.0
All aircraft owners	1.1	1.0

a. Median owned aircraft indicates that number of owned aircraft above which half the population of aircraft owners has more owned aircraft and below which half has less owned aircraft

b. Defined as flying associated with a business but not for hire or reward.

c. Includes hiring out of aircraft to commercial operators and hiring out of aircraft for private flying.

Source BTCE estimates.

Fleet size did not differ significantly between activity groups, the average and median being around one aircraft for each group.

The main expense categories for aircraft owners in each of the activity groups are presented for 1992–93 in table 13.

TABLE 13	EXPENSES	BY ACTIVITY	GROUP, 1992-93

(dollars)					
Expense item	Recreation	Business ^a	Hiring out aircraft ^b	All aircraft owners	
Averages					
Fuel ^c	1 898	3 637	2 597	2 681	
Aircraft insurance	1 816	2 008	3 395	2 062	
Maintenance	3 768	7 015	6 676	5 420	
Aircraft hire	70	349	20	179	
Labour	0	35	0	14	
Interest	75	990	4 575	962	
Depreciation	418	3 502	5 517	2 271	
Government charges					
Fuel excise ^d	569	1209	882	872	
FAC charges ^e	238	255	1 945	441	
CAA chargest	123	125	106	119	
Local govt chargess	325	69	121	192	
Other govt charges ^h	33	37	31	34	
Total govt charges	1 289	1 695	3 085	1 658	
Overheads/other ⁱ	1 078	1 065	1 153	1 074	
Total expenses	10 411	20 295	27 019	16 321	
Median ^j					
Total expenses	6 502	14 372	23 237	10 323	

a. Defined as flying associated with a business but not for hire or reward.

b. Includes hiring out of aircraft to commercial operators and hiring out of aircraft for private flying.

c. Excludes fuel excise.

d. Includes excise on avgas, avtur and mogas.

e. Includes FAC General Aviation Infrastructure Tariff, FAC landing charges, FAC parking charges, FAC rental.

t. Includes terminal navigation, rescue and firefighting, enroute and meteorological service charges.

g. Includes fixed annual charges, landing charges and rental, as levied by both local government and private airport authorities It was not possible to separately identify charges levied by type of authority..

 Includes radio licence fees.
Includes payments to other organisations for flying training, rental of hangars other than from airport authorities and other GA-related overheads.

Median expenses indicates that level of expenses above which half the population of aircraft owners has higher expenses and below which half has lower expenses.

Note Individual numbers may not add to totals due to rounding.

Source BTCE estimates.

Maintenance expenses accounted for the largest share of expenses, between 25 and 36 per cent of average total expenses, depending on activity group. Government charges represented between 8 and 12 per cent of average total expenses (see chart 2).

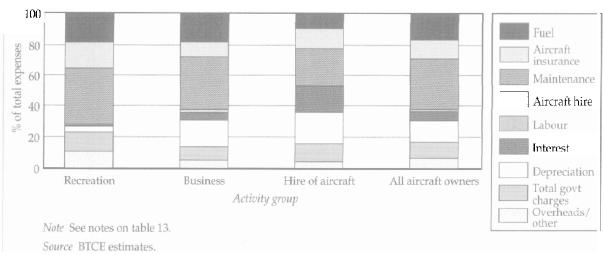


CHART 2 EXPENSE ITEMS AS PERCENTAGES OF AVERAGE TOTAL EXPENSES BY ACTIVITY GROUP, 1992–93

Some non-commercial aircraft owners offset some of their flying expenses by earning income from activities such as hiring out their aircraft. Table 14 provides estimates of this income for 1992–93.

Average income represented between 3 per cent of total expenses for recreational fliers who own aircraft and 64 per cent of total expenses for aircraft owners who mainly hire out their aircraft. However as median incomes suggest, most aircraft owners do not earn income from their aircraft.

TABLE 14INCOME BY ACTIVITY GROUP, 1992-93

dollars	• Ì
ионит	<i>i J</i>

Income item	Recreation	Business ^a	Hiring out aircraft ^b	All aircraft owners
Averages				
Hire of aircraft to private fliers	63	210	4 841	662
Hire of aircraft to commercial operators	356	12	12 325	1 565
Other ^c	-118	1 198	119	447
Total income	301	1 420	17 285	2 674
Median ^d				
Total income	0	0	9 483	0

a. Defined as flying associated with a business but not for hire or reward.

b. Includes hiring out of aircraft to commercial operators and hiring out of aircraft for private flying.

c. Includes cost sharing arrangements, profit/loss on sale of owned aircraft or parts.

d. Median income indicates that income above which half the population of aircraft owners has higher income and below which half has lower income.

Note Individual numbers may not add to totals due to rounding. *Source* BTCE estimates.

The BTCE surveys form part of a comprehensive study of General Aviation that is still in progress. The final report of the project is expected to be published in the first half of 1996. This final report will cover the structure, conduct and performance of the GA industry in more detail and provide final estimates based on the survey results.



For further information on the estimates in this publication, contact the Project Leaders:Paula Barnes(06) 274 6837Andrew Biggs(06) 274 6890

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