

**Fédération Aéronautique Internationale (FAI)  
International Parachuting Commission (IPC)**

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**2006**

**IPC SAFETY SURVEY REPORT**



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**IPC Technical & Safety Committee**

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The material in this report is for IPC use. The publication, in part or in whole, of this report, in any form, is subject to prior approval from the Chair of the IPC Technical & Safety Committee. Where information is published it must be carried in general or aggregate terms, without reference to specific countries.

## 1 INTRODUCTION

39 countries responded to the IPC Safety Survey 2006 (Appendix 2, Table 14, page 22). Responding countries for other years can be seen in that appendix.

1. One country which responded for 2005 (Turkey) did not respond for 2006. Five countries which did not respond for 2005 did so for 2006 (Argentina, Cyprus, India, Latvia and Slovenia) and thanks are extended to the people in those countries who sent data.
2. Military jumping only takes place in Thailand and figures are not available.
3. The questionnaire, which elicited 39 responses, was sent to 74 countries. The response rate (39 in 74) was therefore 53%. This response rate is disappointing but it has proven very difficult to meaningfully raise this response level, despite many efforts by the Technical & Safety Committee and by others who have tried to help. The issue of contact with countries can be a problem, as e-mail messages can produce 'failure' notices, indicating changes in contact details – which changes have not been passed on to the IPC.
4. Some countries do not seem to have in place systems for compiling what are important statistics. This is a matter which those countries should address, especially for their own needs.

### 1.1 Aims

The aims of the survey were:

1. To collect information on the number of fatalities in skydiving worldwide in 2006.
2. To establish reliable and valid figures for skydiving risks during 2006.
3. To establish reliable and valid key figures for worldwide skydiving activity in 2006.
4. To establish reliable and valid risk figures based on statistics from four countries over a period of 44 years.

## 2 METHODS

### 2.1 Information collection, preparation and distribution of the report

The method used to collect the data is the same as in previous years. This work was organised by the Technical & Safety Committee.

The survey form was generally the same as in previous years and this is designed to allow countries, and respondents, to become familiar with the survey and with reporting. The questions on the form were the same as in previous years, with an addition of one extra question which sought information on the use of RSL (Reserve Static Line) by the three categories of jumper in the survey. This permanent survey form facilitates the long term evaluation of skydiving safety worldwide.

The methods used to analyse figures for this report are as used in previous years.

**This report is produced for the Technical & Safety Committee of the International Parachuting Commission of the Fédération Aéronautique Internationale.**

***This 2006 Safety Report, with a Power Point presentation summary, was sent by e-mail to all FAI countries in which there is a parachuting organisation and for which the Technical & Safety Committee has a contact. The report, in CD format, will be distributed at the meeting of the International Parachuting Commission in Paris, France, 22 - 28 January 2008. Further copies, by e-mail, on CD or in hard copy format, as required, are available from the Technical & Safety Committee of IPC (e-mail: [lmcnulty@skydiveireland.ie](mailto:lmcnulty@skydiveireland.ie))***

## 2.2 Data processing methods

The original figures submitted by the various countries are to be found in Appendix 1, Tables 12/13, Page 21 and are summarised in Table 1, Page 4. No changes have been made to data submitted; the figures being exactly as they have been returned by responding countries.

## 2.3 Survey Problems

The same problems were encountered with the 2006 safety Survey as in previous years.

These problems are:

- 1 The relatively low response rate – 53%
- 2 Most countries give estimates only, rather than exact figures.
- 3 Five of the 2006 respondents were new, for 2006, and one of the 2005 respondents failed to respond for 2006.  
Due to this mix in the actual respondents, and the moderate rate of response, it is not possible to give accurate overall figures for world skydiving activity in 2006. Also, direct comparison of results with previous years is not valid, due to the variation/mix in the responding countries.

**However, it should be noted that most countries with large numbers of skydivers and skydives did respond to the 2006 Safety Survey, as those countries do most years. This gives a great deal of credibility to the results.**

Notwithstanding the problems encountered with a survey of this kind, the survey results are of value, when used with caution, bearing the limitations in mind.

Thanks are extended to the people who collected and sent the data. A more comprehensive survey, with greater response, must continue to be pursued. All countries are again asked to please help in this gathering of information, the aim of which is to provide accurate and full data which will be of value in the areas of safety and training in the skydiving community, nationally and internationally.

## 3 RESULTS

The results are based on three sources of information:-

- 1 **Total of respondents with data – 39 countries.**
- 2 **Exact data – the data of 17 countries which supplied exact figures about the number of skydivers, skydives and fatalities in 2006.**
- 3 **Key figure information – the numbers of skydivers, skydives and fatalities over a period of 44 years in the four countries – Finland, France, Norway and Sweden.**

***Note – Only those countries which clearly indicated that their returns were 'exact' are included in the 'exact' data. All others are in the 'estimated' data.***

***Where any discrepancies arise it is because data is taken from the report sheets exactly as it is returned. No attempt is made to change or 'correct' figures.***

**In 2006 there were three fatalities which, though reported, are discounted for this report. They were two suicides and one homicide. The T&S Committee, meeting at Florence, Italy, in January 2007, decided not to include suicides and homicides in the Safety Survey Report, as these types of fatalities were not sport parachuting accidents, and in these cases skydiving was merely the means through which the acts were carried out..**

### 3.1 TOTAL

#### 3.1.1 Skydiving Safety Figures 2006

**Table 1, 2006**

COUNTRY	Numbers		Number of fatalities				Leading causes of fatalities								Validity	
	jumpers	jumps	total	stud.	intern.	exp.	cutaway no res.	low cut	no/low main act.	f/fall collision	fast canopies	other landing	tandem fatalities	other cause		jumps/ jumpers
Argentina	500	2000	1			1		1							4	ESTI
Australia	2242	259323	1		1									1	116	ESTI
Austria	1100	38600	1			1			1						35	ESTI
Belgium	1106	74681	0												68	EXAC
Bulgaria	180	1500	0												8	ESTI
Canada	18200	176050	0												10	ESTI
China (Peoples' R.)	380	4100	0												11	EXAC
Cyprus	100	2700	0												27	ESTI
Czech Rep.	1416	96353	1	1										1	68	EXAC
Denmark	2300	26393	0												11	ESTI
Estonia	450	4500	0												10	ESTI
Finland	2257	41782	0												19	EXAC
France	15165	591750	5	1	1	3			1		2			2	39	EXAC
Germany	10830	247400	7	2	1	4			1		2	1		3	23	EXAC
Greece	230	1800	0												8	ESTI
Hong Kong, China	108	317	0												3	EXAC
Hungary	683	31563	0												46	EXAC
India	304	21926	0												72	EXAC
Italy	4200	185000	1			1						1			44	ESTI
Kazakhstan	1240	20200	0												16	ESTI
Kenya	26	3580	0												138	EX/ES
Latvia	220	5419	0												25	EXAC
Luxembourg	84	1210	0												14	EXAC
Netherlands	3321	73205	0												22	EXAC
New Zealand	946	64545	0												68	EXAC
Norway	1647	60500	0												37	EXAC
Poland	2300	22400	2		1	1			1			1			10	ESTI
Portugal	1010	21580	0												21	EX/ES
Russia	18080	332000	6	1	3	2	1	1	1		2	1			18	ESTI
Saudi Arabia	840	10300	0												12	ESTI
Serbia	498	15085	0												30	ESTI
Slovak Rep.	934	10073	0												11	EXAC
Slovenia	410	15000	0												37	ESTI
South Africa	2547	56230	1	1								1			22	ESTI
Spain	1630	243350	2		1	1			1					1	149	ESTI
Sweden	1820	89800	0												49	EXAC
Switzerland	1700	70800	1			1			1						42	ES/EX
United Kingdom	13500	190500	1	1				1							14	ES/EX
USA	72000	2200000	21	4	1	16		1	3		10		2	5	31	ESTI
<b>TOTAL</b>	<b>39</b>	<b>186004</b>	<b>5311515</b>	<b>51</b>	<b>11</b>	<b>9</b>	<b>31</b>	<b>1</b>	<b>4</b>	<b>9</b>	<b>1</b>	<b>16</b>	<b>5</b>	<b>2</b>	<b>13</b>	
<b>Tandems</b>	<b>646679</b>	<b>646679</b>														
<i>See Table 18</i>																
<b>GRAND TOTALS</b>	<b>832683</b>	<b>5958194</b>														

- 1 Of the ten biggest skydiving nations, in terms of skydives made in 2006, three supplied exact figures – Czech Republic, France and Germany. Seven supplied estimated figures - Australia, Canada, Italy, Russia, Spain, United Kingdom and United States of America.
- 2 The survey response indicates that in 2006, **5.96 million jumps were made by 832,683 jumpers** in the 39 countries which supplied data for the survey. **Note – These total figures INCLUDE TANDEM.** Data on Tandem jumps made in each country is in Table 18, Page 17. Readers may extract other figures/data from this Table 1, as suits their needs
- 3 In terms of jumps per jumper in 2006, these range from 3 in Hong Kong, China to 149 in Spain. Obviously this figure is influenced greatly by the type and nature of the skydiving operations in each country. **The figures in this point 3 do NOT take Tandem data into consideration.**

3.1.2 Primary Skydiving Figures 1989 – 2006

**Table 2, 2006**

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
<b>JUMPERS</b>																		
In 34 countries	340715																	
In 32 countries		316994																
In 35 countries			245162															
In 35 countries				300586														
In 38 countries					370679													
In 40 countries						285253												
In 38 countries							322322											
In 40 countries								323300										
In 37 countries									404198									
In 33 countries										332603								
In 26 countries											335867							
In 27 countries												355405						
In 31 countries													417202					
In 33 countries														357155				
In 39 countries															402513			
In 39 countries																493250		
In 36 countries																	806515	
In 39 countries																		832683
<b>JUMPS</b>																		
in 34 countries	5564137																	
in 32 countries		5189991																
in 35 countries			4848025															
In 35 countries				4591980														
In 38 countries					5267754													
In 40 countries						5064125												
In 39 countries							5562691											
In 40 countries								6013691										
In 37 countries									6843299									
In 33 countries										5596753								
In 26 countries											5594191							
In 27 countries												5750464						
In 31 countries													6872438					
In 33 countries														5769010				
In 39 countries															6335624			
In 39 countries																5332756		
In 36 countries																	6147351	
In 39 countries																		5958194
<b>FATALITIES</b>																		
In 34 countries	97																	
In 32 countries		70																
In 35 countries			74															
In 35 countries				59														
In 38 countries					101													
In 40 countries						70												
In 39 countries							64											
In 40 countries								76										
In 37 countries									78									
In 33 countries										72								
In 26 countries											60							
In 27 countries												63						
In 31 countries													92					
In 33 countries														73				
In 39 countries															82			
In 39 countries																53		
In 36 countries																	64	
In 39 countries																		51
Jumps/jumper	16	16	20	15	14	18	17	19	17	17	17	16	16	16	16	11	8	7
Jumps/fatality	57362	74143	65514	77830	52156	72345	86917	79128	87735	77733	93236	91277	74700	79028	77263	100618	96052	116827
Jumpers/fatality	3513	4528	3313	5094	3670	4075	5036	4254	5182	4619	5598	5641	4534	4893	4909	9307	12602	16327

Table 2, 2006 - shows the following –

**Risk Factor 1 - Jumps per one fatality for 39 countries providing data for 2006 – 116,827**  
**Risk Factor 2 - Jumpers per one fatality for 39 countries providing data for 2006 - 16,327**  
***These Risk Factors are inclusive of Tandems as they are overall figures for jumping.***

It is not valid to make direct comparisons year-to-year, because of the differences in the numbers of respondents and in the mix of responding countries. Nevertheless the overall picture from year to year is of interest once this reservation is kept in mind.

3.1.3 Fatalities in Subgroups

There are no reliable figures showing how many jumps and jumpers there were in the world in 2006, in the three categories used in this survey. The figures, Jumpers and Jumps, immediately below, have been calculated from the numbers in Table 12 (Appendix 1, Page 21). The figures below are from 32 countries which had breakdowns of jumpers and jumps in the various categories. Belgian, Czech Republic, Danish, French, New Zealand, Spanish, and USA figures cannot be used when making these calculations, as there is no breakdown in various figures from these countries. The remaining data from 32 countries - (91,411 Jumpers; 2,014,443 Jumps; 22 Fatalities) indicates that in 2006:-

<b>Jumpers</b>	<b>Jumps</b>
58% were Students	15% were made by Students
15% were intermediates	21% were made by Intermediates
27% were Experts	65% were made by Experts

It is calculated that in 2006 jumps per jumper in the three categories in the 32 countries were:-

<b>Student</b>	<b>6 jumps per jumper</b>
<b>Intermediate</b>	<b>31 jumps per jumper</b>
<b>Expert</b>	<b>52 jumps per jumper</b>

**Both these sets of figures EXCLUDE TANDEMS in the 32 countries in question**

*Please note that these figures only relate to the 32 countries where sufficient breakdown/data could be extracted to arrive at these calculations. The figures are NOT to be taken as true for all 39 countries.*

**Distribution of fatalities in 2006, in numbers and percentages in each category, showing figures also for the years 1990 to 2006 inclusive.**

**Table 3, 2006**

FATALITIES	1990	%	1991	%	1992	%	1993	%	1994	%	1995	%	1996	%	1997	%	1998	%	1999	%	2000	%	
Student	24	34	27	38	23	39	29	29	19	27	12	19	13	17	22	28	16	22	16	27	19	30	
Intermediate	23	33	20	28	21	36	30	30	27	39	24	37	20	26	20	26	4	6	15	25	15	24	
Expert	23	33	25	35	15	25	42	41	24	34	28	44	43	57	36	46	52	72	29	48	29	46	
<b>TOTAL</b>	<b>70</b>	<b>100</b>	<b>72</b>	<b>101</b>	<b>59</b>	<b>100</b>	<b>101</b>	<b>100</b>	<b>70</b>	<b>100</b>	<b>64</b>	<b>100</b>	<b>76</b>	<b>100</b>	<b>78</b>	<b>100</b>	<b>72</b>	<b>100</b>	<b>60</b>	<b>100</b>	<b>63</b>	<b>100</b>	
FATALITIES	2001	%	2002	%	2003	%	2004	%	2005	%	2006	%											
Student	27	29	15	21	14	17	8	15	15	23	11	22											
Intermediate	23	25	14	19	28	34	11	21	19	30	9	18											
Expert	42	46	44	60	40	49	34	64	30	47	31	60											
<b>TOTAL</b>	<b>92</b>	<b>100</b>	<b>73</b>	<b>100</b>	<b>82</b>	<b>100</b>	<b>53</b>	<b>100</b>	<b>64</b>	<b>100</b>	<b>51</b>	<b>100</b>											
CAUSES	1990	%	1991	%	1992	%	1993	%	1994	%	1995	%	1996	%	1997	%	1998	%	1999	%	2000	%	
Cut-away, no res.	11	14	12	16	12	20	9	9	15	21	11	17	4	5	6	1	1	2	3	3	5	5	
Cut-away, low res.	20	30	15	20	3	5	12	12	1	1	15	23	12	16	14	18	2	3	7	12	5	8	
No/low main pull	12	17	18	24	11	19	20	20	13	19	16	25	13	17	18	23	14	19	9	15	7	11	
Other	27	39	29	39	33	56	60	59	41	59	22	34	47	62	41	53	55	76	42	70	48	76	
<b>TOTAL</b>	<b>70</b>	<b>100</b>	<b>74</b>	<b>99</b>	<b>59</b>	<b>100</b>	<b>101</b>	<b>100</b>	<b>70</b>	<b>100</b>	<b>64</b>	<b>99</b>	<b>76</b>	<b>100</b>	<b>78</b>	<b>100</b>	<b>72</b>	<b>99</b>	<b>60</b>	<b>100</b>	<b>63</b>	<b>100</b>	
CAUSES	2001	%	2002	%	2003	%	2004	%	2005	%	2006	%											
Cut-away, no res.	3	3	2	3	5	6	0	0	4	6	1	2											
Cut-away, low res.	13	14	4	5	11	13	3	6	10	16	4	8											
No/low main pull	12	13	12	16	11	13	3	6	6	9	9	18											
Other	64	70	55	75	55	67	47	87	44	69	37	72											
<b>TOTAL</b>	<b>92</b>	<b>100</b>	<b>73</b>	<b>99</b>	<b>82</b>	<b>99</b>	<b>53</b>	<b>99</b>	<b>64</b>	<b>100</b>	<b>51</b>	<b>100</b>											

**Distribution of ‘Other’ Fatalities**

**Table 4, 2006**

<i>Other fatalities, 39 countries</i>	<b>Number</b>	<b>%</b>
Fast Canopies	16	43%
Landing Errors	5	14%
Equipment problems	5	14%
Collission under open canopies	2	5%
Tandem	2	5%
Freefall Collision	1	3%
Cutaway and bag lock on reserve	1	3%
Malfunction of student deployment device, no reserve activation	1	3%
Landing under two canopies	1	3%
Rotation under canopy until impact	1	3%
Collission on opening (CF jump)	1	3%
Medical problem and impact with building	1	3%
<b>TOTAL</b>	<b>37</b>	<b>100%</b>

**Fatalities breakdown by percentages, against jumps made by each category, in 2006, *in 32 countries only*. There were 22 fatalities in these 32 countries. Please take special note of this – see note below.**

<b>Category</b>	<b>% of jumpers</b>	<b>% of jumps</b>	<b>% of Fatalities</b>
Students	58%	15%	23% (5)
Intermediate Jumpers	15%	21%	27% (6)
Experts	27%	65%	50% (11)

**Note – These figures exclude Belgium, Czech Republic, Denmark, France, New Zealand, Spain and USA, as the percentage of jumps per category cannot be ascertained for these countries.**

**These figures have little/limited relevance to worldwide figures and they are of value only insofar as they show Jumpers/Jumps/Fatalities ratios for countries where data is available.**

**THESE FIGURES EXCLUDE TANDEMS**

**Three largest groupings into which 2006 Fatalities fall (all 39 countries – 51 fatalities)**

- 1 The largest category - 16 (31%), was ‘Fast Canopies’.
- 2 The second largest grouping - 9 (18%) was ‘No or Low Activation of Main Canopy’
- 3 The third largest grouping - 5 each (10% each) was ‘Other landing Errors’ and ‘Equipment problems’.

**Fatalities with jumper still having serviceable equipment (all 39 countries)**

**By careful estimation it appears that 71%, 36 of 51 fatalities happened with the jumper having at least one good parachute on his or her back.**

**It also appears that 45% of the fatalities in 2006 (23 of 51) occurred after the successful deployment of the main parachute.**

***These figures are arrived at through scrutiny of the reported data and the discounting of some categories – e.g. medical problems, freefall collision. The figures are from subjective analysis of reports.***

### 3.2 Exact Figures

#### 3.2.1 Primary Skydiving figures of 17 Countries in 2006

The number of countries that defined information for 2006 as 'exact' was 17. Some countries failed to indicate whether their figures were 'exact' or 'estimated'. In these cases the figures could not be taken as 'exact'. Where, within the same reports, some figures were 'exact' and others 'estimated', in some instances it was possible to use the figures as 'exact', while with other calculations this was not possible.

**Table 5, 2006**

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
<b>Number of Jumpers</b>																	
In 22 countries	143553																
In 26 countries		72198															
In 18 countries			119608														
In 13 countries				82618													
In 14 countries					86075												
In 12 countries						74641											
In 16 countries							78119										
In 15 countries								89198									
In 8 countries									76538								
In 12 countries										95216							
In 11 countries											97808						
In 10 countries												98015					
In 13 countries													106479				
In 12 countries														110097			
In 17 countries															115906		
In 17 countries																111622	
In 17 countries																	216605
<b>Number of Jumps</b>																	
In 22 countries	2292146																
In 26 countries		1952213															
In 13 countries			1197311														
In 13 countries				1025791													
In 14 countries					1388851												
In 12 countries						1103272											
In 16 countries							976597										
In 15 countries								1138684									
In 8 countries									938229								
In 12 countries										1444175							
In 11 countries											1328789						
In 10 countries												1418673					
In 13 countries													1528415				
In 12 countries														1720115			
In 17 countries															1698758		
In 17 countries																1633921	
In 17 countries																	1609715
<b>Number of Fatalities</b>																	
In 22 countries	39																
In 26 countries		28															
In 18 countries			19														
In 13 countries				25													
In 14 countries					24												
In 12 countries						14											
In 16 countries							11										
In 15 countries								15									
In 8 countries									11								
In 12 countries										25							
In 11 countries											20						
In 10 countries												21					
In 13 countries													26				
In 12 countries														30			
In 17 countries															20		
In 17 countries																16	
In 17 countries																	15
Jumps per jumper	16	27	10	12	16	15	12	13	12	15	14	14	14	16	15	15	7
Jumps per fatality	58773	69722	63016	41032	57869	78805	88782	75912	78186	57767	66439	67554	58785	57337	84938	102120	107314
Jumpers per fatality	3681	2579	6295	3305	3586	5332	7101	5947	6378	3809	4890	4667	4095	3670	5795	6976	14440

#### Risk factors for skydiving in 17 countries in 2006

**Risk Factor 1 - (Fatality per Jumps): 1:107,314**  
**Risk Factor 2 - (Fatality per Jumpers): 1: 14,440**

3.2.2 Fatalities in subgroups in 17 Countries, whose figures for 2006 were 'Exact'

**Table 6, 2006**

Year	1990		1991		1992		1993		1994		1995		1996		1997		1998		1999		2000	
No. Countries	22		26		18		13		14		12		14		15		8		12		11	
	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%
<b>FATALITIES</b>																						
Student	16	41	11	40	8	42	8	32	8	33	4	28	4	36	4	27	5	42	6	24	8	40
Intermediate	12	31	8	30	7	37	7	28	11	46	4	28	3	27	2	13	0	0	10	40	3	15
Expert	11	28	8	30	4	21	10	40	5	21	6	43	4	36	9	60	7	58	9	36	9	45
<b>TOTAL</b>	<b>39</b>	<b>100</b>	<b>*27</b>	<b>100</b>	<b>19</b>	<b>100</b>	<b>25</b>	<b>100</b>	<b>24</b>	<b>100</b>	<b>14</b>	<b>99</b>	<b>11</b>	<b>99</b>	<b>15</b>	<b>100</b>	<b>12</b>	<b>100</b>	<b>25</b>	<b>100</b>	<b>20</b>	<b>100</b>
<b>CAUSES</b>																						
cutaway, no res.	8	21	4	14	2	10	1	4	7	29	0	0	2	18	2	13	0	0	1	4	1	5
cutaway, low res.	8	21	8	29	1	5	4	16	1	4	3	21	2	18	3	20	0	0	5	20	3	15
no/low pull, main	8	21	6	21	2	10	3	12	1	4	6	43	3	27	3	20	1	8	3	12	3	15
other	15	36	10	36	14	74	17	68	15	63	5	36	4	36	7	47	11	92	16	64	13	65
<b>TOTAL</b>	<b>39</b>	<b>100</b>	<b>*28</b>	<b>100</b>	<b>19</b>	<b>100</b>	<b>25</b>	<b>100</b>	<b>24</b>	<b>100</b>	<b>14</b>	<b>100</b>	<b>11</b>	<b>99</b>	<b>15</b>	<b>100</b>	<b>12</b>	<b>100</b>	<b>25</b>	<b>100</b>	<b>20</b>	<b>100</b>
*There is a difference in the upper TOTAL and lower TOTAL columns for 1991.																						

Year	2001		2002		2003		2004		2005		2006	
No. Countries	10		13		12		17		17		17	
	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%
<b>FATALITIES</b>												
Student	5	24	7	27	4	13	3	15	1	6	4	27
Intermediate	7	33	6	23	11	37	4	20	4	25	3	20
Expert	9	43	13	50	15	50	13	65	11	69	8	53
<b>TOTAL</b>	<b>21</b>	<b>100</b>	<b>26</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>20</b>	<b>100</b>	<b>16</b>	<b>100</b>	<b>15</b>	<b>100</b>
<b>CAUSES</b>												
cutaway, no res.	0	0	2	7	3	10	0	0	1	6	0	0
cutaway, low res.	1	5	0	0	2	7	2	10	0	0	0	0
no/low pull, main	6	29	3	11.5	3	10	1	5	1	6	3	20
other	14	66	21	81	22	73	17	85	14	88	12	80
<b>TOTAL</b>	<b>21</b>	<b>100</b>	<b>26</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>20</b>	<b>100</b>	<b>16</b>	<b>100</b>	<b>15</b>	<b>100</b>

### 3.3 A 44-Year Study from Four Countries.

This is a study of skydiving safety over a period of 44 years, in Finland, France, Norway and Sweden.

**Special importance is attached to this section of the report.  
The compilation of accurate data results in validity of trends and comparisons,  
due to the consistency of the reporting and the accuracy of the figures.**

#### 3.3.1 The Utility

The figures from these four countries have been used over a long period of years because they are accurate and reliable figures in numbers of jumps, of jumpers and of fatalities. This gives the opportunity to:-

- 1 Establish authoritative figures for fatality risks in skydiving.
- 2 Give skydiving countries reliable and valid figures as reference for safety work.
- 3 Encourage countries to establish methods of collecting exact data for monitoring the safe development of skydiving.
- 4 Help eliminate 'opinion' and replace with facts and figures as a basis for debate on safety.

It is important to be able to make valid comparisons and discern trends, if and when such exist, in safety advances or disimprovements. This is best done by long-term collection of figures from the same, reliable, sources. As might be expected, the fatality rates, as a ratio to jumps made, are high in the early years of this study.

The advances over time in knowledge, instruction and equipment show in the marked improvement in this rate in the more recent years of the study. The earlier years' figures still affect the long-term statistics.

There are factors which effect, over a few years, movements and trends in the whole area of safety and incidents in parachuting, e.g., changes in type of equipment in use. When any in-depth study or comparison of any periods is made, such changes and developments must be taken into account.

In addition to the 44 year figures, the last five years, 2002 to 2006 inclusive, have been taken as a separate exercise. This gives an indication of trends in more recent times in the four countries – Finland, France, Norway and Sweden.

**3.3.2 Finland 1963 – 2006**

**Table 7, 2006**

Year	Jumps	Fatalities	Jumpers	Account Fatalities	Account Jumps	Account Jumpers	Fatality / Jumps	Fatality / Jumpers
1963	338	0	10	0	338	10	na	na
1964	1111	0	30	0	1449	40	na	na
1965	1515	0	50	0	2964	90	na	na
1966	2057	1	70	1	5021	160	5021	160
1967	3298	0	100	1	8319	260	8319	260
1968	3798	2	100	3	12117	360	4039	120
1969	5532	0	150	3	17649	510	5883	170
1970	9633	0	220	3	27282	730	9094	243
1971	13005	2	250	5	40287	980	8057	196
1972	9600	0	250	5	49887	1230	9977	246
1973	11000	2	280	7	60887	1510	8698	216
1974	10586	0	300	7	71473	1810	10210	259
1975	12235	0	460	7	83708	2270	11958	324
1976	13586	1	534	8	97294	2804	12162	351
1977	11127	0	544	8	108421	3348	13553	419
1978	14289	0	635	8	122710	3983	15339	498
1979	17896	0	741	8	140606	4724	17576	591
1980	23597	1	855	9	164203	5579	18245	620
1981	24151	0	999	9	188354	6578	20928	731
1982	25362	0	999	9	213716	7577	23746	842
1983	30126	0	1191	9	243842	8768	27094	974
1984	32438	3	1111	12	276280	9879	23023	823
1985	30100	0	1055	12	306380	10934	25532	911
1986	30734	0	1284	12	337114	12218	28093	1018
1987	33820	0	1309	12	370934	13527	30911	1127
1988	42599	0	1546	12	413533	15073	34461	1256
1989	49071	1	1784	13	462604	16857	35585	1297
1990	52586	0	2118	13	515190	18975	39630	1460
1991	53453	0	2025	13	568643	21000	43742	1615
1992	54732	0	2032	13	623375	23032	47952	1772
1993	64167	3	2000	16	687542	25032	42971	1565
1994	47998	1	2169	17	735540	27201	43267	1600
1995	49546	1	2431	18	785086	29632	43616	1646
1996	52980	0	3280	18	838066	32912	46559	1829
1997	56287	1	3100	19	894353	36012	47071	1895
1998	55030	0	2565	19	949383	38577	49968	2030
1999	57536	0	2708	19	1006919	41285	52996	2173
2000	49828	1	3100	20	1056747	44385	52837	2219
2001	49963	1	3056	21	1106710	47441	52700	2259
2002	56181	1	3043	22	1162891	50484	52859	2295
2003	45317	1	2771	23	1208208	53255	52531	2315
2004	45132	1	2521	24	1253340	55776	52223	2324
2005	44723	0	3127	24	1298063	58903	54086	2454
2006	42779	0	3254	24	1340842	62157	55868	2590
<b>TOTAL</b>	<b>1340842</b>	<b>24</b>	<b>62157</b>				<b>55868</b>	<b>2590</b>
<b>5 YEARS - 2002 TO 2006</b>								
Year	Jumps	Fatalities	Jumpers	Account Fatalities	Account Jumps	Account Jumpers	Fatality/ Jumps	Fatality/ Jumpers
2002	56181	1	3043	1	56181	3043	56181	3043
2003	45317	1	2771	2	101498	5814	50749	2907
2004	45132	1	2521	3	146630	8335	48877	2778
2005	44723	0	3127	3	191353	11462	63784	3821
2006	42779	0	3254	3	234132	14716	78044	4905
<b>TOTAL</b>	<b>234132</b>	<b>3</b>	<b>14716</b>				<b>78044</b>	<b>4905</b>

*In Finland the transition from round to ram-air canopies began to occur on a larger scale in 1975.  
 All experienced jumpers were using ram-air main canopies in 1980.  
 The transition to ram-air student canopies took place from 1986 to 1988.*

<b>Risk Factors</b>	<b>1963 – 2006</b>	<b>2002 – 2006</b>
<b>Risk Factor 1 (fatality - jumps)</b>	<b>1: 55,868</b>	<b>1: 78,044</b>
<b>Risk Factor 2 (fatality - jumpers)</b>	<b>1: 2,590</b>	<b>1: 4,905</b>

**3.3.3. France 1963 – 2006**

**Table 8, 2006**

Year	Jumps	Fatalities	Jumpers	Account Fatalities	Account Jumps	Account Jumpers	Fatality /Jumps	Fatality /Jumpers
1963	79041	2	2140	2	79041	2140	39521	1070
1964	103005	2	2732	4	182046	4872	45512	1218
1965	109452	2	3694	6	291498	8566	48583	1428
1966	122465	1	5790	7	413963	14356	59138	2051
1967	156248	4	6964	11	570211	21320	51837	1938
1968	179861	2	7468	13	750072	28788	57698	2214
1969	204716	2	7447	15	954788	36235	63653	2416
1970	185124	2	6648	17	1139912	42883	67054	2523
1971	195073	3	7291	20	1334985	50174	66749	2509
1972	132415	5	6982	25	1467400	57156	58696	2286
1973	228660	4	7982	29	1696060	65138	58485	2246
1974	225426	2	7915	31	1921486	73053	61983	2357
1975	286467	6	8622	37	2207953	81675	59674	2207
1976	286453	3	8770	40	2494406	90445	62360	2261
1977	262893	8	9501	48	2757299	99946	57444	2082
1978	267861	8	9689	56	3025160	109635	54021	1958
1979	264280	13	10193	69	3289440	119828	47673	1737
1980	243246	7	9531	76	3532686	129359	46483	1702
1981	284848	6	10191	82	3817534	139550	46555	1702
1982	320453	5	10598	87	4137987	150148	47563	1726
1983	348268	10	18143	97	4486255	168291	46250	1735
1984	379784	13	21772	110	4866039	190063	44237	1728
1985	394213	10	20501	120	5260252	210564	43835	1755
1986	394837	7	20946	127	5655089	231510	44528	1823
1987	397250	6	21006	133	6052339	252516	45506	1899
1988	419229	8	25640	141	6471568	278156	45898	1973
1989	475601	13	30201	154	6947169	308357	45111	2002
1990	496287	4	28132	158	7443456	336489	47110	2130
1991	473460	9	25284	167	7916916	361773	47407	2166
1992	486617	7	25360	174	8403533	387133	48296	2225
1993	472777	5	30143	179	8876310	417276	49588	2331
1994	482352	8	21000	187	9358662	438276	50046	2344
1995	519571	6	21258	193	9878233	459534	51183	2381
1996	490065	7	25768	200	10368298	485302	51841	2427
1997	536872	8	28552	208	10905170	513854	52429	2470
1998	520661	7	31095	215	11425831	544949	53143	2535
1999	547853	9	32325	224	11973684	577274	53320	2577
2000	481812	6	33281	230	12455496	610555	54154	2655
2001	558257	2	35964	232	13013753	646519	56094	2787
2002	595675	8	39246	240	13609428	685765	56706	2857
2003	649793	10	42362	250	14259221	728127	57037	2913
2004	602976	6	49497	256	14862197	777624	58055	3038
2005	627291	4	46804	260	15489488	824428	59575	3171
2006	620914	5	44329	265	16110402	868757	60794	3278
<b>TOTAL</b>	<b>16110402</b>	<b>265</b>	<b>868757</b>				<b>60794</b>	<b>3278</b>

  

5 YEARS - 2002 TO 2006								
Year	Jumps	Fatalities	Jumpers	Account Fatalities	Account Jumps	Account Jumpers	Fatality/ Jumps	Fatality/ Jumpers
2002	595675	8	39246	8	595675	39246	74459	4906
2003	649793	10	42362	18	1245468	81608	69193	4534
2004	602976	6	49497	24	1848444	131105	77019	5463
2005	627291	4	46804	28	2475735	177909	88419	6354
2006	620914	5	44329	33	3096649	222238	93838	6734
<b>TOTAL</b>	<b>3096649</b>	<b>33</b>	<b>222238</b>				<b>93838</b>	<b>6734</b>

<b>Risk Factors</b>	<b>1963 – 2006</b>	<b>2002 - 2006</b>
<b>Risk Factor 1 (fatality - jumps)</b>	<b>1: 60,794</b>	<b>1: 93,838</b>
<b>Risk Factor 2 (fatality - jumpers)</b>	<b>1: 3,278</b>	<b>1: 6,734</b>

**3.3.4 Norway 1963 – 2006**

**Table 9, 2006**

Year	Jumps	Fatalities	Jumpers	Account Fatalities	Account Jumps	Account Jumpers	Fatality /Jumps	Fatality /Jumpers
1963	0	0	0	0	0	0	na	na
1964	198	0	149	0	198	149	na	na
1965	813	0	200	0	1011	349	na	na
1966	1235	0	256	0	2246	605	na	na
1967	895	0	277	0	3141	882	na	na
1968	998	0	245	0	4139	1127	na	na
1969	2032	1	383	1	6171	1510	6171	1510
1970	3823	0	386	1	9994	1896	9994	1896
1971	6850	0	462	1	16844	2358	16844	2358
1972	7606	0	523	1	24450	2881	24450	2881
1973	6074	1	657	2	30524	3538	15262	1769
1974	8895	0	781	2	39419	4319	19710	2160
1975	14941	1	946	3	54360	5265	18120	1755
1976	17162	2	1088	5	71522	6353	14304	1271
1977	19898	1	1211	6	91420	7564	15237	1261
1978	18468	1	1403	7	109888	8967	15698	1281
1979	19674	0	1452	7	129562	10419	18509	1488
1980	22960	3	1645	10	152522	12064	15252	1206
1981	22090	2	1564	12	174612	13628	14551	1136
1982	23602	0	1645	12	198214	15273	16518	1273
1983	25478	0	1749	12	223692	17022	18641	1419
1984	29514	1	1965	13	253206	18987	19477	1461
1985	25159	1	2160	14	278365	21147	19883	1511
1986	38293	0	2455	14	316658	23602	22618	1686
1987	44635	2	2633	16	361293	26235	22581	1640
1988	45649	1	2754	17	406942	28989	23938	1705
1989	43939	0	2992	17	450881	31981	26522	1881
1990	44228	1	3371	18	495109	35352	27506	1964
1991	40308	0	2108	18	535417	37460	29745	2081
1992	42486	3	3522	21	577903	40982	27519	1952
1993	48876	0	3482	21	626779	44464	29989	2117
1994	40816	1	3343	22	667595	47807	30345	2173
1995	44170	0	3512	22	711765	51319	32353	2333
1996	46311	1	3849	23	758076	55168	32960	2399
1997	49545	1	1533	24	807621	56701	33651	2363
1998	46836	0	1102	24	854457	57803	35602	2408
1999	47943	1	2449	25	902400	60252	36096	2410
2000	50557	2	2120	27	952957	62372	35295	2310
2001	58203	0	1946	27	1011160	64318	37450	2382
2002	62636	2	2394	29	1073796	66712	37027	2300
2003	70436	1	2270	30	1144232	68982	38141	2299
2004	63019	1	1666	31	1207251	70648	38944	2279
2005	64552	0	3606	31	1271803	74254	41026	2395
2006	62630	0	3777	31	1334433	78031	43046	2517
<b>TOTAL</b>	<b>1334433</b>	<b>31</b>	<b>78031</b>				<b>43046</b>	<b>2517</b>
<b>5 YEARS - 2002 TO 2006</b>								
Year	Jumps	Fatalities	Jumpers	Account Fatalities	Account Jumps	Account Jumpers	Fatality/ Jumps	Fatality/ Jumpers
2002	62636	2	2394	2	62636	2394	31318	1197
2003	70436	1	2270	3	133072	4664	44357	1555
2004	63019	1	1666	4	196091	6330	49023	1583
2005	64552	0	3606	4	260643	9936	65161	2484
2006	62630	0	3777	4	323273	13713	80818	3428
<b>TOTAL</b>	<b>323273</b>	<b>4</b>	<b>13713</b>				<b>80818</b>	<b>3428</b>

<b>Risk Factors</b>	<b>1963 – 2006</b>	<b>2002 - 2006</b>
<b>Risk Factor 1 (fatality – jumps)</b>	<b>1: 43,046</b>	<b>1: 80,818</b>
<b>Risk Factor 2 (fatality – jumpers)</b>	<b>1: 2,517</b>	<b>1: 3,428</b>

**3.3.5 Sweden 1963 - 2006**

**Table 10, 2006**

Year	Jumps	Fatalities	Jumpers	Account Fatalities	Account Jumps	Account Jumpers	Fatality / Jumps	Fatality / Jumpers
1963	879	0	220	0	879	220	na	na
1964	1526	0	277	0	2405	497	na	na
1965	1269	1	377	1	3674	874	3674	874
1966	2151	0	371	1	5825	1245	5825	1245
1967	2920	1	487	2	8745	1732	4373	866
1968	4629	0	639	2	13374	2371	6687	1186
1969	6587	0	849	2	19961	3230	9981	1615
1970	7268	0	907	2	27229	4127	13615	2064
1971	8307	3	1049	5	35536	5176	7101	1035
1972	10810	0	1061	5	46346	6237	9269	1248
1973	12748	2	1023	7	59094	7260	8442	1037
1974	13064	1	1010	8	72158	8270	9020	1034
1975	17675	1	1144	9	89833	9414	9981	1046
1976	20749	0	1586	9	110582	11000	12287	1222
1977	25326	3	2009	12	135908	13019	11326	1085
1978	26561	1	2150	13	162469	15149	12498	1165
1979	30954	1	2400	14	193423	17559	13816	1254
1980	31509	2	2441	16	224932	20000	14058	1250
1981	29775	2	2564	18	254707	22564	14150	1254
1982	30726	1	2137	19	285433	24701	15023	1300
1983	35698	2	2581	21	321131	27282	15292	1299
1984	43692	2	2681	23	364823	29963	15862	1303
1985	46208	0	2278	23	411031	32241	17871	1402
1986	52490	0	2849	23	463521	35090	20153	1526
1987	51327	1	2448	24	514848	37538	21452	1564
1988	57715	1	2436	25	572563	39974	22903	1599
1989	70475	1	2969	26	643038	42943	24732	1651
1990	77257	1	3258	27	720295	46201	26678	1711
1991	95415	0	3175	27	815710	49376	30211	1829
1992	103706	0	3635	27	919416	53011	34052	1963
1993	105497	4	3662	31	1024913	56673	33062	1828
1994	99724	2	3346	33	1124637	60019	34080	1819
1995	112512	1	3563	34	1237149	63582	36387	1870
1996	109950	1	3733	35	1347099	67315	38489	1923
1997	118437	0	3214	35	1465536	70529	41872	2015
1998	96758	1	3088	36	1562294	73617	43397	2045
1999	111454	0	2793	36	1673748	76410	46493	2123
2000	108128	0	3158	36	1781876	79568	49497	2210
2001	125465	3	3022	39	1907341	82590	48906	2118
2002	134429	1	2750	40	2041770	85340	51044	2134
2003	109004	0	2651	40	2150774	87991	53769	2200
2004	96013	0	2521	40	2246787	90512	56170	2263
2005	96206	1	6478	41	2342993	96990	57146	2366
2006	94900	0	6920	41	2437893	103910	59461	2534
<b>TOTAL</b>	<b>2437893</b>	<b>41</b>	<b>103910</b>				<b>59461</b>	<b>2534</b>
<b>5 YEARS - 2002 TO 2006</b>								
Year	Jumps	Fatalities	Jumpers	Account Fatalities	Account Jumps	Account Jumpers	Fatality/ Jumps	Fatality/ Jumpers
2002	134429	1	2750	1	134429	2750	134429	2750
2003	109004	0	2651	1	243433	5401	243433	5401
2004	96013	0	2521	1	339446	7922	339446	7922
2005	96206	1	6478	2	435652	14400	217826	7200
2006	94900	0	6920	2	530552	21320	265276	10660
<b>TOTAL</b>	<b>530552</b>	<b>2</b>	<b>21320</b>				<b>265276</b>	<b>10660</b>

<b>Risk Factors</b>	<b>1963 – 2006</b>	<b>2002 - 2006</b>
<b>Risk Factor 1 (fatality – jumps)</b>	<b>1: 59,461</b>	<b>1: 265,276</b>
<b>Risk Factor 2 (fatality – jumpers)</b>	<b>1: 2,534</b>	<b>1: 10,660</b>

### 3.3.6 Four Countries - Finland, France, Norway, Sweden – 1963 to 2006

Key safety figures for the four countries, for the two periods, 1963 – 2006 and 2002 - 2006, are presented in Table 11 and Table 11A.

**Table 11, 2006**

44 Year Period 1963 - 2006						
Country	Jumps	Fatalities	Jumpers		Risk 1	Risk 2
					Fatality - Jumps	Fatality - Jumpers
Finland	1340842	24	62157		55868	2590
France	16110402	265	868757		60794	3278
Norway	1334433	31	78031		43046	2517
Sweden	2437893	41	103910		59461	2534
<b>TOTAL</b>	<b>21223570</b>	<b>361</b>	<b>1112855</b>		<b>58791</b>	<b>3083</b>

**Table 11A, 2006**

5 Year Period 2002 - 2006						
Country	Jumps	Fatalities	Jumpers		Risk 1	Risk 2
					Fatality - Jumps	Fatality - Jumpers
Finland	234132	3	14716		78044	4905
France	3096649	33	222238		93838	6734
Norway	323273	4	13713		80818	3428
Sweden	530552	2	21320		265276	10660
<b>TOTAL</b>	<b>4184606</b>	<b>42</b>	<b>271987</b>		<b>99633</b>	<b>6476</b>

### 3.4 Special Questions

The special questions, aimed at ascertaining trends, if such exist, and gathering specific information, were asked again for the 2006 survey.

There was one additional question, **No. 8, What percentage of jumpers use RSL on Reserves?** – see 3.4.8 for responses to this new question.

#### 3.4.1 Question1 – How many first jumps were made in your country in 2006?

By Static Line, IAD, JAD (total number)

By Accelerated Freefall (total number)

By Tandem Freefall (total number)

See Appendix 1, Table 13, Page 21, for responses to this question

#### 3.4.2 How widely are Square Mains and Square Reserves used on first jumps?

37 Countries (of 39 total responses) answered this question, and the following are the results.

- 1 In 32 countries (86% of 37) 50% or more of first jumps were made with both Ram-air mains and Ram-air reserves.
- 2 In 33 countries (89% of 37) 50% or more of first jumps were on Ram-air mains.
- 3 In 25 countries (68% of 37) all first time jumps were on Ram-air mains.
- 4 In 3 countries (8% of 37) 50% or more of first jumps were on Round mains.
- 5 In 1 country (3% of 37) all First Jumps made on Round main parachutes.

The majority of countries now use Ram-air mains. In a few countries while Round mains are still in use the degree of their use is very low, compared to the overall parachuting scenario in those countries.

3.4.3 What percentage of all skydivers use AAD regularly?

37 countries answered this question and the responses indicate that the trend towards use of AAD by all skydivers continues to grow.

**Students**

- 1 **ALL Students in 35 countries (95% of 37) used AAD.**
- 2 **In 36 countries (97% of 37) more than 75% of Students used AAD.**

**Intermediate**

- 3 **ALL intermediate jumpers in 20 countries (54% of 37) used AAD.**
- 4 **In 35 countries (95% of 37) 50% or more of Intermediate jumpers used AAD. In the majority of cases the percentage use by Intermediate jumpers was in the +70% range, rather than near the 50% level.**
- 5 **In 37 countries (100% of 37) 30% or more of Intermediate jumpers used AAD. One country had a figure of 30%, one had 45% and the other 35 were + 70%.**

**Expert**

- 6 **ALL Expert skydivers in 10 countries (27% of 37) used an AAD.**
- 7 **In 36 countries (97% of 37) 50% or more of Expert jumpers used AAD.**
- 8 **In 37 countries (87% of 37) 30% or more of Expert jumpers used AAD.**

3.4.4 How many times in 2006 did the use of AAD save jumpers' lives?

35 countries answered this question, in one way or another. One country could not supply any figures for this question. **From the responses it would appear that at least 61 lives were saved by the use of AAD in 2006** (if it can be assumed that an AAD firing is a life saved). Table 13, (Appendix 1, Page 21) gives the responses from the various countries.

***It should also be noted that firings/saves may not be reported, due to field servicing of AADs.***

***The separate 2006 AAD report should be consulted for further information on AAD saves in 2006 and previous years, along with various comments on AAD use.***

**Please note** – Any difference in numbers of saves in this Safety Report and in the AAD Report is due to the fact that the reports are extracted from separate forms. Not all of the countries which responded to the Safety Report (containing Question 4 – How many times did AAD save a jumper's life in your country?) replied to the AAD questionnaire.

3.4.5 Fatalities breakdown between male and female

Of the 39 responding countries 14 reported fatalities, totalling 51. See various tables, Table 1 in particular, for details.

**Of the 51 fatalities 40 (78%) were male and 11 (22%) were female.**

Previous years -

Year	Total	Male	Female	Year	Total	Male	Female
2006	51	40 (78%)	11 (22%)	2000	63	57 (90%)	6 (10%)
2005	64	54 (84%)	10 (16%)	1999	60	55 (92%)	5 (8%)
2004	53	44 (83%)	9 (17%)	1998	72	53 (74%)	13 (18%)
2003	82	67 (82%)	15 (18%)	1997	78	64 (82%)	13 (17%)
2002	73	?	?	1996	76	65 (86%)	11 (14%)
2001	90	75 (83%)	15 (17%)	1995	64	55 (86%)	9 (14%)

***Where there is a discrepancy in figures it arises from countries not reporting the breakdown between male/female fatalities.***

3.4.6 How many Tandem Descents were made in your country in 2006?

**Table 18, 2006**

COUNTRY	NUMBER OF	TANDEM	SOLO	SOLO	TANDEMS AS % OF SOLOS	
	TANDEMS	FATALITIES	JUMPS	FATALITIES	2006	2005
Argentina	2,000	0	2,000	1	100%	n/a
Australia	71,000	0	259,323	1	27%	27%
Austria	3,900	0	38,600	1	10%	6%
Belgium	6,868	0	74,681	1	9%	8%
Bulgaria	50	0	1,500	0	3%	5%
Canada	15,000	0	176,050	0	9%	9%
China (Peoples' R.)	0	0	4,100	0	0%	0%
Cyprus	30	0	2,700	0	1%	2%
Czech Rep.	10,600	0	96,353	1	11%	10%
Denmark	1,019	0	26,393	0	4%	3%
Estonia	70	0	4,500	0	2%	1%
Finland	997	0	41,782	0	2%	2%
France	29,164	0	591,750	5	5%	5%
Germany	25,600	0	247,400	7	10%	9%
Greece	60	0	1,800	0	3%	2%
Hong Kong, China	0	0	317	0	0%	0%
Hungary	3,169	0	31,563	0	10%	5%
India	40	0	21,926	0	0%	n/a
Italy	8,800	0	185,000	1	5%	2%
Kazakhstan	0	0	20,200	0	0%	1%
Kenya	67	0	3,580	0	2%	2%
Latvia	254	0	5,419	0	5%	n/a
Luxembourg	86	0	1,210	0	7%	10%
Netherlands	9,752	0	73,205	0	13%	12%
New Zealand	75,425	0	64,545	0	117%	124%
Norway	2,130	0	60,500	0	4%	3%
Poland	3,000	0	22,400	2	13%	8%
Portugal	1,350	0	21,580	0	6%	5%
Russia	5,150	0	332,000	6	2%	1%
Saudi Arabia	0	0	10,300	0	0%	67%
Serbia	163	0	15,085	0	1%	0%
Slovak Rep.	906	0	10,073	0	9%	6%
Slovenia	1,300	0	15,000	0	9%	n/a
South Africa	6,450	0	56,230	1	11%	11%
Spain	19,779	0	243,350	2	8%	7%
Sweden	5,100	0	89,800	0	6%	5%
Switzerland	8,000	0	70,800	1	11%	9%
Turkey	n/a	n/a	n/a	n/a	n/a	1%
United Kingdom	31,400	0	190,500	1	16%	11%
USA	300,000	2	2,200,000	19	14%	11%
<b>TOTAL 39 countries</b>	<b>646,679</b>	<b>2</b>	<b>5,311,515</b>	<b>49</b>	<b>12.2%</b>	<b>10.4%</b>

Note - n/a indicates that the country did not report in the year under which n/a appears

Tandem jumps amounted to 10.8% of all jumps made in 2006 (9.5% in 2005)  
 Tandem jumps compared to all solo jumps in 2006 were 12.2% (10.4% in 2005)

First Jumps                    103,289 were made by Static Line. IAD/JAD and AFF  
    586,233 were made by Tandem

Tandem 1<sup>st</sup> jumps were in the ratio of 10 to 1 against Static Line and IAD/JAD first jumps  
 Tandem 1<sup>st</sup> jumps were in the ratio of 13 to 1 against AFF first jumps.  
 Tandem 1<sup>st</sup> jumps were in the ratio of 6 to 1 against Static Line, IAD/JAD and AFF combined.  
 (see Table 13 for these figures)

There were two Tandem fatalities in 2006 (4% of 51). While it therefore may appear that Tandem jumping is safer than Solo jumping, there are very many factors to be taken into account.

**The continuing increase of Tandem jumping and the impact of this on sport parachuting is a matter for consideration in all countries.**

**It is recognised that there are two aspects to Tandem parachuting – a) its use in a programme of student progression, and b) its use as a recreational outdoor activity.**

3.4.7 How many of the 2006 fatalities were First Jump Students?  
 5 (9.8%) of the 51 fatalities in 2006 were First Jump Students.

Previous years -

Year	Total Fatalities	First jump fatalities
2005	64	3 (4.7%)
2004	53	3 (5.7%)
2003	82	2 (2.4%)
2002	73	8 (7%)
2001	92	12 (13%)
2000	63	6 (9.5%)

3.4.8 What percentages of Jumpers use RSL on Reserves – Student, Intermediate, Expert ?  
 26 countries supplied information on this matter.

**Students**

In 22 countries (85% of 26) 100% of Students use RSL on Reserves  
 In 25 countries (96% of 26) over 50% of Students use RSL on Reserves

**Intermediate Jumpers**

In 7 countries (27% of 26) 100% of Intermediate Jumpers use RSL on Reserves  
 In 15 countries (58% of 26) over 50% of Intermediate Jumpers use RSL on Reserves

**Expert Jumpers**

In 2 countries (8% of 26) 100% of Expert Jumpers use RSL on Reserves  
 In 10 countries (38% of 26) over 50% of Expert Jumpers use RSL on Reserves

3.4.9 Comments

9 of the 39 responding countries added comments. This additional information mainly helped to confirm the categories into which particular fatalities should be put.

**The Czech Republic reported that First Jump Students in that country must first make a Static Line or Tandem jump, before being allowed onto an AFF course.**

**4 SOME CONCLUSIONS**

**4.1 Equipment**

By carefully and conservatively estimating the replies the conclusion may be reached that 37 (73%) of the 51 fatalities occurred with the skydiver having at least one good parachute. For this figure of 37 the following are excluded:- Equipment problems (5), Collision under open canopies (2), Freefall Collision (1), Tandem fatalities (Tandem master collapsed under canopy and Tandem pair landed in ocean) (2), Landing under two canopies (1), Cutaway and bag lock on reserve (1), Collision on opening (1), Medical problem (1) – total exclusions 14. These fatalities are excluded as in some cases not enough detail is known about the fatality and in other cases having a good parachute undeployed does not appear to have been a factor in the fatality.

Previous years –

Year	Percentage	Year	Percentage	Year	Percentage	Year	Percentage
2005	53%	2001	84%	1997	85%	1993	75%
2004	66%	2000	73%	1996	71%	1992	59%
2003	79%	1999	85%	1995	95%	1991	75%
2002	94%	1998	64%	1994	81%		

By cautious estimation it could be concluded that 10 of the fatalities (16% of 51) - No or low pull on the main (9); Malfunction of student deployment device and no reserve deployment (1) - might have been avoided by the use of an AAD.

The category of Cutaway and low pull on reserve is not included as an AAD may not fire at a low altitude, depending on how low the cutaway is made and the vertical rate of descent.

This conclusion is based on the supposition that if no main deployment, no reserve deployment after failure of main to deploy, or cutaway/no reserve deployment resulted in a fatality, then the jumper was not/may not have been using an AAD.

The downward trend in this figure, compared to the years 1993 to 2001 can be explained by the increased use of AAD.

Previous years –

Year	Percentage	Year	Percentage	Year	Percentage	Year	Percentage
2005	16%	2001	35%	1997	38%	1993	56%
2004	11%	2000	27%	1996	26%		
2003	20%	1999	38%	1995	73%		
2002	23%	1998	26%	1994	57%		

#### 4.2 Instruction and reinforcement of Training

It appears that 41 of the 51 fatalities may have been caused by human error on the part of skydivers.

The 10 fatalities excluded to arrive at 41 are - Equipment problems (5), Tandem fatalities (2), Cutaway and bag lock on reserve (1), Landing under two canopies (1), Medical problem and collision with building (1). In some of these cases the full details are not known, while in other cases, e.g. medical problem, there is not normally an element of 'human error'.

There is some subjectivity/estimation in arriving at this figure of 41.

**41 is 80% of 51 and this is a very high percentage. This percentage is consistently high over many years and it points to the constant need to reinforce training and safety procedures at all levels in skydiving.**

Previous years -

Year	Percentage	Year	Percentage	Year	Percentage	Year	Percentage
2005	84%	2001	94%	1997	88%	1993	90%
2004	79%	2000	80%	1996	92%		
2003	77%	1999	84%	1995	94%		
2002	90%	1998	68%	1994	94%		

**It appears that at least 21 of the 51 fatalities (41%) occurred after the successful deployment of the main parachute. These 21 fatalities are in the 'Fast Canopies' and 'Other landing Errors' categories. Comparable figures for 2005 and 2004 are 38% and 49% respectively.**

**WITH HUMAN ERROR BEING SUCH A MAJOR FACTOR IN SKYDIVING FATALITIES,  
THE ATTENTION OF ALL PERSONNEL INVOLVED IN COACHING AND TRAINING,  
AT INTERNATIONAL, NATIONAL, REGIONAL AND LOCAL LEVELS MUST BE CONTINUOUSLY  
FOCUSED ON SAFETY TRAINING AND TRAINING REINFORCEMENT.**

**IT IS EVIDENT THAT CONTINUOUS ADDRESSING OF SAFETY ISSUES AT DROPZONE LEVEL  
MUST BE A PRIORITY FOR ALL NATIONAL PARACHUTING ORGANISATIONS.  
CANOPY HANDLING SKILLS MUST FEATURE PROMINENTLY.**

### 4.3 Final Figures

The number of fatal skydiving accidents in 2006, in the 39 countries which responded to the IPC Safety Survey, was 51.

(See Table 2, page 5, for figures for the eighteen years 1989 – 2006, but please note that these figures are not valid for comparison with one another, due to the varied nature of the reporting over the years.)

**The number of jumps (including Tandems) in the 39 responding countries was - 5,958,194**

**The number of jumpers (including Tandems) in the 39 responding countries was - 832,683**

**(see table 1, Page 4, for figures with and without Tandem jumps/jumpers)**

## 5 SUMMARY

The aims of the 2006 survey were -

- 1 To collect information on the number of fatalities in skydiving in 2006. The aim was not achieved as the response was insufficient.

**There were 51 fatalities in 39 countries.**

- 2 To establish reliable and valid figures for worldwide skydiving activity in 2006. This aim was not achieved due to the limited response. From the 39 responding countries the following risk factors were determined -

<b>Risk Factor 1</b>	<b>1: 116,827</b>	<b>(Fatality per number of jumps)</b>
<b>Risk Factor 2</b>	<b>1: 16,327</b>	<b>(Fatality per number of jumpers)</b>

- 3 To establish reliable and valid figures for worldwide skydiving activity in 2006. This aim was not achieved as only 39 countries responded to the survey. Of the 39 responding countries, 17 supplied exact figures. 22 countries supplied either estimated figures or a mixture of exact and estimated figures.

- 4 To establish reliable and valid risk figures based on statistics from 4 countries over a 44-year period. This aim was achieved.

<b>Risk Factor 1</b>	<b>1: 58,791</b>	<b>(Fatality per number of jumps)</b>
<b>Risk Factor 2</b>	<b>1: 3,083</b>	<b>(Fatality per number of jumpers)</b>

## 6 LIST OF APPENDICES

- 1 Information supplied by 39 countries, Tables 12/13, Pages 21
- 2 List of responding countries, 1988 to 2006, Table 14, Page 22
- 3 Data from USA, the world's largest skydiving country, for 24 years, 1983 – 2006, Table 15, Page 23
- 4 Collection sheet of exact information, Tables 16/17, Page 24

7 APPENDICES

Appendix 1, Table 12, 2006

COUNTRY	Number of jumpers in 2006				Number of jumps made in 2006				No. of fatalities in 2006				Leading causes of fatalities								
	total	students	interm.	experts	total	students	interm.	experts	total	student	interm.	expert	cutaway, no res.	low cut	no act/ low main	F/F collis	Fast canopies	other landing	tandem fatalities	other causes	
Argentina	500	200	100	200	2000	500	500	1000	1			1									
Australia	2242	785	560	897	259323	4149	21783	233391	1		1									1	
Austria	1100	240	370	490	38600	2450	9150	27000	1			1			1						
Belgium	1106	no breakdown			74681	no breakdown			0												
Bulgaria	180	100	50	30	1500	300	500	700	0												
Canada	18200	16500	600	1100	176050	18450	19600	138000	0												
China, People's Rep	380	130	100	150	4100	500	600	3000	0												
Cyprus	100	40	25	35	2700	100	800	1800	0												
Czech Republic	1416	no breakdown			96353	no breakdown			1	1										1	
Denmark	2300	no breakdown			26393	21674			0												
Estonia	450	200	150	100	4500	800	1200	2500	0												
Finland	2257	1500	400	357	41782	3783	17650	17650	0												
France	15165	4550	10615	Inter/Exp	591750	37497	523717	Inter/Exp	5	1	1	3			1		2			2	
Germany	10830	1925	2380	6525	247400	21165	45900	180335	7	2	1	4		1		2	1		3		
Greece	230	125	65	40	1800	700	500	600	0												
Hong Kong, China	108	82	20	6	317	139	100	78	0												
Hungary	683	252	197	234	31563	3011	7852	20700	0												
India	304	82	114	108	21926	1776	9761	10389	0												
Italy	4200	1260	840	2100	185000	55500	18500	111000	1			1						1			
Kazakhstan	1240	900	250	90	20200	1900	7500	10800	0												
Kenya	26	6	7	13	3580	80	404	3096	0												
Latvia	220	35	95	90	5419	733	2386	2300	0												
Luxembourg	84	28	46	12	1210	150	675	385	0												
Netherlands	3321	1300	500	1521	73205	12479	23472	37524	0												
New Zealand	946	297	811	Inter/Exp	64545	3206	61545	Inter/Exp	0												
Norway	1647	416	750	451	60500	6531	22500	31469	0												
Poland	2300	900	500	900	22400	5000	7000	10400	2			1	1		1					1	
Portugal	1010	520	230	260	21580	2280	11000	8300	0												
Russia	18080	15400	1410	1270	332000	108000	97000	127000	6	1	3	2	1	1	1	2	1				
Saudi Arabia	840	100	200	540	10300	5000	1300	4000	0												
Serbia	498	230	118	150	15085	3455	4130	7500	0												
Slovak Republic	934	607	122	205	10073	1246	1323	7504	0												
Slovenia	410	100	200	110	15000	1000	5000	9000	0												
South Africa	2547	1812	256	479	56230	5000	16230	35000	1	1								1			
Spain	1630	no breakdown			243350	no breakdown			2		1	1			1					1	
Sweden	1820	500	480	840	89800	5996	23214	54175	0												
Switzerland	1700	150	300	1250	70800	14600	14050	42150	1			1			1						
United Kingdom	13500	7000	2000	4500	190500	19890	6750	163860	1	1				1							
U.S.A.	72000	41000	31000	Inter/Exp	2200000	no breakdown			21	4	1	16		1	3		10		2	5	
<b>TOTAL</b>	<b>39</b>	<b>186004</b>	<b>99070</b>	<b>13335</b>	<b>24853</b>	<b>5311515</b>	<b>351585</b>	<b>419504</b>	<b>1301606</b>	<b>51</b>	<b>11</b>	<b>9</b>	<b>31</b>	<b>1</b>	<b>4</b>	<b>9</b>	<b>1</b>	<b>16</b>	<b>4</b>	<b>2</b>	<b>14</b>

Figures are exactly as supplied

Where a composite figure is given no attempt is made to break down this figure.

Note – This table shows the Tandem Fatalities, but it does NOT show Tandem Jumps and Tandem Jumpers figures.

Appendix 1, Table 13, 2006

COUNTRY	Safety Survey 2006																			
	Question 1				Question 2				Question 3				Qs. 4	Quest. 5		Ques. 6	Ques. 7	Ques. 8		
	First Jumps made by				% of 1st Jumps on				AAD use by %				AAD	Fatalities		Tandem	1st Jump	RSL on Reserve		
stat. line	AFF	tandem	or IAD	Round main	Sq. main	Round res	Sq. res	Student	Interm.	Expert	saves	Fatalities	Male	Fem.	Descents	Fatalities	%	Inter	Exp	
Argentina	20	0	80	100	100	100	100	100	100	30	100	0	1	1	2000		100	50	50	
Australia	135	483	70884	100	100	100	100	100	100	80	2	1	1	71000						
Austria	14	32	0	100	100	100	100	99	0	1	1			3900						
Belgium			6868	100	100	100	100	100	100	1	0			6868			100	80	40	
Bulgaria	120	15	100	10	90	10	90	100	100	95	3	0		50			100	100	70	
Canada	5000	1000	9800	100	30	70	100	85	75	4	0			15000			100	50	20	
China, Peoples' Rep.				80	20	80	20	100	90	50	0	0								
Cyprus	40	15	20	100	100	100	100	100	100	0	0			30						
Czech Rep	1979		140	3	97	70	30	100	95	80	5	1	1	10600			100	20	5	
Denmark	1600			100	100	100	100	100	100	1	0			1019			100			
Estonia	180	0	60	15	85	80	20	100	70	85	0	0		70			100	60	30	
Finland	815	54	900	100	4.6	95.4	100	84.4	84.4	1	0			997			95	30	30	
France	4000	3500	29164	100	100	100	100	100	100	2	5	5		29164			100	100	60	
Germany	805	915	345	1	99	3	97	100	99	97	2	7	5	2	25600			99	20	1 to 2
Greece	40	10	60	100	100	100	100	100	90	0	0			60			100	85	35	
Hong Kong, China	14	0	0	100	100	100	100	100	100	0	0			NA			100	100	100	
Hungary	122	32	0	5	95	5	95	100	100	50	3	0		3169			100	50	30	
India	1138	0		100	100	100	100	95	1	0				40						
Italy	150	850	2100	100	100	100	100	95	95	4	1	1		8800			100	100	100	
Kazakhstan																				
Kenya	0	12	67	100	100	100	100	100	100	0	0			67			100	100	80	
Latvia	447	4686	254	100	100	100	100	100	100	70	4	0		254			100	30	10	
Luxembourg	26		86	100	100	100	100	100	100	0	0			86						
Netherlands	916	293	9752	7.3	92.7			100	95	75	0	0		9752			100			
New Zealand	54	162	75425	100	100	100	100	100	100	2	0			75425			100	15	2	
Norway	197	164	2130	100	100	100	100	93	93	1	0			2130			100	80	80	
Poland	3000	600	400	30	70	30	70	70	70	50	2	2		3000			10	10	10	
Portugal	2150	130	1300	100	100	100	100	90	0	0				1350			100	100	90	
Russia	12970	670	4700	95	5	95	5	100	100	95	17	6	4	2	5150	1				
Saudi Arabia	100										4	0					30			
Serbia	180	0	163	100	100	100	100	70	50	0	0			163			100	20	0	
Slovak Republic	509	18	906	5	99	25	75	100	100	50	0	0		906						
Slovenia	80	0	0	100	15	85	100	60	30	0	0			1300			50	30	5	
South Africa	1632	180	6450	100	100	100	100	45	53	0	1		1	6450						
Spain	105	747	19779	100	100	100	100	100	100	3	2		2	19779						
Sweden	400	100	5100	100	5	95	100	100	90	0	0			5100			100	100	50	
Switzerland	91	582	8000	100	100	100	95	90	1	1	1			8000			100	20	10	
United Kingdom	7030	980	31200	0.5	99.5	5	95	99.5	99.5	85	0	1	1	31400						
USA	13000	28000	300000	0	100	10	90	100	75	75	n/a	21	17	4	273000	3	100	60	50	
<b>TOTALS</b>	<b>58959</b>	<b>44330</b>	<b>586233</b>								<b>61</b>	<b>51</b>	<b>40</b>	<b>11</b>	<b>621679</b>	<b>5</b>				

**Appendix 2, Table 14, 2006 Responses to Safety Surveys 1988 – 2006**

COUNTRY	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Algeria									1										
Argentina		1	1	1			1		1	1						*			1
Australia	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Austria	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Belarus									1	1	1	1							
Belgium		1	1	1	1	1	1	1	1	1				1	1	1	1	1	1
Brasil									1										
Bulgaria	1	1	1	1											1	1	1	1	1
Canada	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Chile	1																		
China	1	1				1	1	1		1	1	1	1			1	1	1	1
Croatia							1				1					1			
Cuba					1														
Cyprus					1	1								1	1	1	1		1
Czechoslovakia	1	1	1	1															
Czech Republic						1	1	1	1	1	1	1	1	1	1	1	1	1	1
Denmark	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Estonia															1	1	1	1	1
Finland	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
France	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
GDR	1	1																	
Germany	1	1	1			1	1	1	1	1	1	1	1	1	1	1	1	1	1
Greece	1		1	1			1	1	1	1	1				1	1	1	1	1
Honduras				1															
Hong Kong, China				1	1		1	1									1	1	1
Hungary	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1
Iceland		1	1	1	1	1	1	1	1	1									
India				1			1	1	1						1	1	1		1
Indonesia	1			1	1	1	1	1	1	1	1								
Ireland	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
Israel	1	1			1	1	1	1	1	1									
Italy	1	1			1		1	1	1	1	1						1	1	1
Japan	1	1	1		1	1	1	1	1				1	1	1				
Kazakhstan									1							1	1	1	1
Kenya						1	1	1	1	1	1	1	1	1	1	1	1	1	1
Korea	1		1	1															
Latvia																			1
Lithuania							1	1	1				1	1			1		
Luxembourg	1	1	1	1	1	1	1		1								1	1	1
Macedonia							1	1	1	1	1								
Malaysia				1		1													
Mocambique		1				1		1			1	1							
Namibia					1											1			
Netherlands	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
New Zealand	1		1	1		1								1	1	1		1	1
Norway	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Paraguay		1																	
Poland	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Peru	1				1														
Portugal							1	1	1	1	1	1	1	1	1	1	1	1	1
Romania			1			1		1									1		
Russia - USSR	1	1	1	1		1				1				1		1		1	1
Saudi Arabia																1	1	1	1
Serbia																		1	1
Serbia & Montenegro															1	1	1		
Slovak Republic					1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Slovenia					1	1	1								1	1	1	1	1
South Africa		1	1	1	1	1				1			1			1	1	1	1
Spain		1	1	1	1	1	1	1	1	1			1	1	1	1	1	1	1
Sweden	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Switzerland	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Thailand	1	1					1	1	1							*	*	*	*
Turkey	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
United Arab Emirates					1	1	1	1			1								
United Kingdom	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Uruguay						1		1	1	1	1								
United States	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Venezuela		1	1	1	1	1	1	1	1	1	1		1	1	1				
Yugoslavia					1				1	1			1	1					
Zimbabwe	1			1												1	1		
<b>Totals</b>	<b>34</b>	<b>34</b>	<b>32</b>	<b>35</b>	<b>35</b>	<b>39</b>	<b>41</b>	<b>40</b>	<b>42</b>	<b>37</b>	<b>33</b>	<b>26</b>	<b>27</b>	<b>31</b>	<b>33</b>	<b>39</b>	<b>39</b>	<b>35</b>	<b>39</b>

\* Military jumping only in Thailand, no figures available.

Appendix 3, Table 15, 2006

YEAR	JUMPERS	JUMPS	FATALITIES		
			Yearly Number	Per 100,000 Jumps	Per 100,000 Jumpers
1983	101500	unknown	29		28.6
1984	100300	2373000	33	1.2	32.9
1985	102100	2329000	26	1.1	25.5
1986	105600	2246000	30	1.3	28.4
1987	108200	2289000	28	1.2	25.9
1988	110700	2297000	23	1.0	20.8
1989	111880	2352000	36	1.5	32.2
1990	115500	2400000	23	0.9	19.9
1991	121900	2440000	30	1.2	24.6
1992	136528	2600000	27	1.0	19.7
1993	140100	2756870	41	1.5	29.3
1994	140000	2750000	30	1.1	21.4
1995	140000	3000000	28	0.9	20.0
1996	145000	3250000	39	1.2	26.9
1997	145000	3250000	32	1.0	22.1
1998	145000	3250000	47	1.4	32.4
1999	145000	3250000	27	0.8	18.6
2000	145000	3300000	30	0.9	20.7
2001	145000	3000000	35	1.2	24.1
2002	145000	3000000	33	1.1	22.8
2003	145000	3000000	25	0.8	17.2
2004	335000	2520000	21	0.8	7.3
2005	346000	2773000	27	1.1	7.8
2006	372000	2500000	21	0.8	5.7

**The USA had more jumps and jumpers in 2006 than any other country.  
 This table, giving risk factors for the twenty-four years 1983 – 2006 is therefore of particular interest and value, even though the numbers of jumps and jumpers for 2006 were estimated, rather than exact.  
 The number of fatalities for 2006 was exact.**

**Appendix 4, Table 16, 2006**

Country	Number of skydivers in country				Number of jumps made in 2006				Fatalities				Leading causes of fatalities								
	total	students	interm.	experts	total	student	interm	experts	total	stud.	inter.	exp.	cutaway no res.	low cutaway	no act/ low main	freefall collision	fast canopies	other landing	tandem fatalities	other causes	
Belgium	1106	No breakdown			74681	No Breakdown			0												
China	380	130	100	150	4100	500	600	3000	0												
Czech Rep.	1416	No breakdown			96353	No Breakdown			1	1										1	
Finland	2257	1500	400	340	41782	3783	17650	17650	0												
France	15165	4550	10615	Inter/Exp	591750	37497	557330	Inter/Exp	5	1	1	3			1		2			2	
Germany	10830	1925	2380	6525	247400	21165	45900	180335	7	2	1	4			1		2	1		3	
Hong Kong, China	108	82	20	6	317	139	100	78	0												
Hungary	683	252	197	234	31563	3011	7852	20700	0												
India	304	82	114	108	21926	1776	9761	10389	0												
Latvia	220	35	95	90	5419	733	2386	2300	0												
Luxembourg	84	26	46	12	1210	150	675	385	0												
Netherlands	3321	1300	500	1521	73205	12479	23472	37524	0												
New Zealand	946	297	811	Inter/Exp	64645	3206	61545	Inter/Exp	0												
Norway	1647	416	750	451	60500	6531	22500	31469	0												
Poland	2300	900	500	900	22400	5000	7000	10400	2		1	1			1			1			
Slovak Republic	934	607	122	205	10073	1246	1323	7504	0												
Sweden	1820	500	480	840	89800	5996	23214	54175	0												
		Plus 11426 int.& exp. & 2522 - no breakdown				Plus 618878 int.& exp. & 171034 - no breakdown															
<b>TOTAL</b>	<b>17</b>	<b>43521</b>	<b>12602</b>	<b>5704</b>	<b>11382</b>	<b>1437124</b>	<b>103212</b>	<b>162433</b>	<b>375909</b>	<b>15</b>	<b>4</b>	<b>3</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>4</b>	<b>2</b>	<b>0</b>	<b>6</b>

Belgium – No breakdown of jumpers and jumps.

Czech Republic – No breakdown of jumpers and jumps.

France – No breakdowns Intermediate and Expert jumpers and jumps.

New Zealand – No breakdown intermediate/expert jumpers and jumps

**Appendix 4, Table 17, 2006**

COUNTRY	First jumps done by			AAD saves	What % of First Jumps on -				% of jumpers used AAD		
	static line or IAD	AFF	tandem		Round main	Square main	Round reserve	Square reserve	Students	Interm.	Experts
Belgium	375	2102	5329	5		100		100	100	100	100
Bulgaria	30	0	25	2	85	15	85	15	100	90	50
China	300	0	0	0	80	20	100		0		20
Czech Rep.	1879	38	7823	5	20	80	65	35	100	90	90
Finland	901	21	707	1		100	14.1	85.9	100	80	80
France	19783	21345	28833	3		100		100	100	100	100
Germany	750	710	370	3	1	99	4	96	100	99	97
Hong Kong, China	30	10		0		100		100	100	100	100
Hungary	95	22	0	2	1	99	1	99	100	60	25
Luxembourg	15		69	0		100		100	100	100	100
Netherlands	920	236	9330	1	8.5	91.5	?	?	100	95	75
New Zealand	87	259	68086	1		100		100	100	75	75
Norway	288	265	1891	0		100		100	100	93	93
Slovak Republic	309	32	548	0	10	90	30	70	100	100	50
Sweden	400	83	4566	6		100	5	95	100	100	90
Turkey	572	0	81	0		100		100	100	100	100
UK	7260	1270	23400	0	1	99	12	88	99	96	85
<b>TOTAL</b>	<b>17</b>	<b>33994</b>	<b>26393</b>	<b>151058</b>	<b>29</b>						

UK - Round/Square use and AAD use figures are accurate estimates

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