

Global Licensing Requirements Analysis

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At the meeting held on the 28th October 2020 regarding Part 106 I presented my general reasoning with regards to my concerns to specific changes to various paragliding licensing requirements. Part 106 proposes increases for the requirements for several license grades compared to the requirements currently in place in the CATS and CARS. Upon which it was requested that I do an international comparison. I again want to place on record my agreement with the majority of Part 106 with the exception of the increased requirements to various license grades which is analysed below.

Method: Online research by means of visiting various international associations' and schools' websites in search of the relevant information as well as a request to international pilots to help fill in their country's information.

Data collected: The data and tables used in this analysis is available on google sheets at the following link:

https://docs.google.com/spreadsheets/d/1IUAORGzHhXF1kRsXyN-V5ON0_dTWu6J7rcLE7NUG-Hc/edit?usp=sharing

Analysis:

1. Countries and Associations Analysed:

- a. South African standards (current and proposed are compared to the following countries, associations and standards:
 - i. IPPI - International Pilot Proficiency Information levels as promoted by the FAI in it's "Recommended Safety Proficiency Standards For Paragliding" document effective from May 2020
(https://www.fai.org/sites/default/files/civil/documents/safepro_para_2020.pdf)
 - ii. APPI - : Association of Paragliding Pilots and Instructors - whose system is used by schools and instructors 134 countries
(<https://appify.org/?What-is-APPI&lang=en>)
 - iii. Various countries including: USA, New Zealand, Switzerland, British, Germany, Australia and Canada. For some countries only limited information was available
- b. It should be noted that the criteria of flight numbers, hours etc. are not the only criteria. Often there are exams, and other forms of evaluation included in the requirements.

2. Pre-Basic License level (IPPI 1 - 3)

Question / License l	South Africa Current	Sout Africa Part 106	IPPI	APPI	New Zealand	Swiss
- Min flights			Only ground skimming	1	6	
- Min hours						
- Time/license prerequisites			2 days	3 days		
IPPI 2	NA	NA	IPPI2	APPI 2		NA
- Min flights			10	10 high	12	
- Min hours						
- Time/license prerequisites			4 days	10 days		
IPPI 3	NA	NA	IPPI3	APPI 3		NA
- Min flights			Min 3 with Big Ears, Pitch control, minor collapses	30 high		
- Min hours						
- Time/license prerequisites						

Question / License l	British	Germany	USHPA	Australia	Canada (HPAC)
- Min flights					5
- Min hours					
- Time/license prerequisites					
IPPI 2	EP		P-2		P2
- Min flights	None		35		25
- Min hours	None				
- Time/license prerequisites	-		8 hours of ground school theory		Meet Practical Skill Requirements
IPPI 3	Club Pilot		P-3 + TUR* / P-4	PG 3	P3
- Min flights	-		90	60	90 (min 30 flying days)
- Min hours	-		20	15	60
- Time/license prerequisites	EP		30 flying days		HAGAR Exam

Comment: South Africa's first license called the Basic license starts at IPPI level 4. This is the same as Switzerland and Germany. However, it is different to IPPI, APPI, US, Britain, Australia, New Zealand and Canada who use lower license levels in the qualification system

4. Basic license level: (IPPI 4)

Question / License Level	South Africa Current	Sout Africa Part 106	IPPI	APPI	New Zealand	Swiss
IPPI 4	Basic License	Basic license	IPPI 4	IPPI 4	PG2	Swiss Pilot
- Min flights	35	35	25	50	40	50 (with min. height difference of 600m) + theory exam + practical exam (both by independent examiners)
- Min hours	4	4	15	30	5	No requirement
- Time/license prerequisites	Min 7 days	None				No requirement

Question / License Level	British	Germany	USHPA	Australia	Canada (HPAC)
IPPI 4	Pilot	A Schein	P-3 + TUR* + RS* / P4 + RS*	PG 4	
- Min flights	-	Basic course on training hill, then 40 high flights- Tow license training also possible	250		250 (min 80 flying days)
- Min hours	-	20	75	30	120 (min 60 in thermals)
- Time/license prerequisites	-	approx 2 weeks	80 days	25 flying days	HAGAR, SIV, thermal soaring

Comment: Unsure why the minimum of 7 days training for the Basic license has been removed in Part 106. Compared to other countries/associations

4. Intermediate license level

Question / License Level	South Africa Current	Sout Africa Part 106	IPPI
Intermediate License (Proposed for Part 106 and positioned between Bas			
- Min flights			100 Unsure where this license will sit in the
- Min hours	Does not exist		25 IPPI system
- Time/license prerequisites		Basic license	

Comment: This license grade is between the Basic (IPPI 4) and Sport (IPPI 5) levels. I'm unsure how to compare this however will leave it here as it shows the change from the current to the proposed part 106.

5. Sport license level

Question / License Level	South Africa Current	Sout Africa Part 106	IPPI	APPI	New Zealand	Swiss
IPPI 5	Sport License	Sport License		APPI 5	PG3	
- Min flights	125	200	100	200	250	Swiss licence + min 5 cross country flights
- Min hours	20	50	50	100	100	
- Time/license prerequisites	Basic License min 6 months	Basic License min 12 months		APPI/IPPI 3 for min 1 year	PG2 min 12 months	Swiss licence for 1 year

Question / License Level	British	Germany	USHPA	Australia	Canada (HPAC)
IPPI 5	Advanced Pilot	B Schein	P4 + XC	PG 5	
- Min flights		At least 20 confirmed flights, including 10 thermal flights with a flight duration of more than 30 minutes	250	200	
- Min hours			75	80	
- Time/license prerequisites	Pilot	A schein		PG 4 for min 12 months	

Comments: The increase of the current minimum flights and hours from 125 and 20 to 200 and 50, respectively, will bring in SA in line with several of the international bodies with the exception of Switzerland and Germany who have far lower requirements.

7. Standard Tandem Pilot

Question / License Level	South Africa Current	South Africa Part 106	IPPI	APPI	New Zealand	Swiss
Non-Commercial Tandem Pi	Standard Tandem	Standard Tandem		Non-commercial tandem	PG Tandem	Tandem 1 or Tandem 2 (Tandem 3 pilot with insufficient flights to renew licence)
- Min flights	300 high flights	300 flights	100	200	250	200
- Min hours	150	150		100	100	No requirement
- Time/license prerequisites	Basic License min 2 years		IPPI 5	Flying more than 1 year	PG3 for min 6 months; First Aid	Swiss licence for 2 yeears + SIV (with specific maneuvers) + 50km cross country flight + advanced solo test + 20 tandem flights under instruction + tandem practical exam (by independednt examiner)
	Sport License min 1 year	Sport License min 1 year				Tandem 2 pilot has already qualified as Tandem 3, but has not renewed the higher licence

Question / License Level	British	Germany	USHPA	Australia	Canada (HPAC)
Non-Commercial Tandem Pi			Non-commercial tandem		
- Min flights					
- Min hours					
- Time/license prerequisites	Training course and test no minimum requirements		minimum 200 hours of logged air time OR 100 hours with 500 flights of at least 500 ft. vertical descent OR 100 hours with 500 flights of 2 minutes duration or longer.		

Comments: The new Part 106 will remove the need for high flights which is of concern. It is uncertain whether this change is on purpose. South Africa's minimum flights and hours requirement are far greater than that required by IPPI, APPI, New Zealand, Switzerland and Britain. The requirements for Germany, Australia and Canada are unknown. The US has a system of crediting hours only or a combination of flights and hours. South Africa's current and Part 106 requirement of having a Sport license for a minimum of 1 year is higher than most other countries/ associations. New Zealand has the requirement for set at 6 months whereas others such as APPI and Switzerland require that the pilot be flying for a minimum time span not related to their IPPI 5 related license level.

8. Assistant Instructor

Question / License Level	South Africa Current	Sout Africa Part 106	IPPI	APPI	New Zealand	Swiss
Assistant Instructor to teach	Assistant Instr	Assistant Instr		Assistant Instr	PG Assistant Instr	Fluglehrer Aspirant
- Min flights	None	None		100 tandem	40	No requirement
- Min hours	None	None			5	No requirement
- Time/license prerequisites	Sport license	Sport license min 1 year		Tandem license for min 1 year	PG2 and First Aid	Swiss licence for 1 year + first aid course level 1 IVR + basic peadagogic course + theory exam (by independedn examiner)
				Assist at min 2 schools, 30 days		

Question / License Level	British	Germany	USHPA	Australia	Canada (HPAC)
Assistant Instructor to teach			Assistant Instr		
- Min flights					
- Min hours					
- Time/license prerequisites			Intermediate rating (H3/P3) or above for your wing, complete 40 hours of apprenticeship with a USHPA-certified instructor, attend and pass a clinic put on by an instructor administrator, complete the Fundamentals of Instructing (FOI) test, hold a current CPR/First Aid certification		

Comments: Part 106 proposes INCREASING the requirement from having a sport license to having a sport license for a minimum of one year. No other country/association has this limitation

9. Instructor Grade B

Question / License Level	South Africa Current	Sout Africa Part 106	IPPI	APPI	New Zealand	Swiss
Instructor to teach/license s	Grade B	Grade B		Instructor	PG Instructor	Fluglehrer
- Min flights	300 high flights	500 solo flights		200 solo, 100 tandem	250	300
- Min hours	150	100		100	100	No requirement
- Time/license prerequisites	Basic License min 2 years				PG3 + Min 12 days as assistant instructor	Fluglehrer-Aspirant for 1 year + practical placement with 2 schools + paedogogic course parts 1 & 2 + 50 km cross country flight + theory course + theory exam + advance solo exam (all exams by independent examiner) + final texching exam
	Sport License min 1 year	Sport license min 2 years				
	Assistant Instr min 6 months	Assitant Inst min 12 months				
	Assist at min 3 schools, 20 days	Assist at min 1 school, 20 days		18 months as Assistant Instructor		

Question / License Level	British	Germany	USHPA	Australia	Canada (HPAC)
Instructor to teach/license s			Instructor		
- Min flights					
- Min hours					
- Time/license prerequisites	Unknown	Unknown	Hold an advanced rating (H4/P4) or above for your wing, hold a Basic Instructor certification for at least 1 year, show a log of at least 6 students taught and rated to the novice (H2/P2) level, and hold a current CPR/First Aid certification.	Unknown	Unknown

Comments: Part 106 proposes INCREASING the current requirement from 300 high flights to 500 solo flights. The addition of the word “solo” will exclude tandem flights done by the pilot which will penalise those pilots who have attained a standard tandem license. Again the word “high” has been removed thereby promoting “small” flights. The requirement for the time span of both sport license and assistant

instructor rating have both been INCREASED. Compared to international standards this 500 solo requirement is far higher than APPI, New Zealand, Switzerland, and the US. The implementation of the proposal in Part 106 will *slow down the growth of new Grade B instructors* which in turn slows down the growth of the sport.

9. Instructor Grade C (Tandem Flight Instructor)

Question / License Level	South Africa Current	Sout Africa Part 106	IPPI	APPI	New Zealand	Swiss
Tandem Flight Instructor	Grade C (TFI)			Pro Tandem	PG Tandem Commercial	Tandem 3
- Min flights	500 (100 tandem)	500 (200 tandem)		100 tandem	500 (30 tandem)	Tandem licence part 1 + 30 tandem flights under instruction + passenger management course + practical exam (by independent examiner)
- Min hours	50 tandem	50 tandem		-	100	50 flights/ 3 years, with min 10 flights /year
- Time/license prerequisites	Tandem license min 1 year	Tandem license min 1 year		Tandem license min 1 year	50hrs since P3	See above

Question / License Level	British	Germany	USHPA	Australia	Canada (HPAC)
Tandem Flight Instructor			Tandem Commercial		
- Min flights	Unknown	Unknown	minimum 200 hours of logged air time OR 100 hours with 500 flights of at least 500 ft. vertical descent OR 100 hours with 500 flights of 2 minutes duration or longer.	Unknown	Unknown
- Min hours					
- Time/license prerequisites					

Comments: Part 106 INCREASES the number of tandem flights from the current minimum of 100 tandem flights to 200.

This increase is far higher than that required by APPI (100 tandem), New Zealand (30 tandems), Switzerland and the US

11. Instructor Grade A

Question / License Level	South Africa Current	Sout Africa Part 106	IPPI	APPI	New Zealand	Swiss
Instructor Evaluator	Grade A	Grade A		Master Instructor		Expert
- Min flights						
- Min hours						
- Time/license prerequisites	Gr B & C Instr for min 2 years, trained 50 students to Basic License (IPPI4)	Gr B & C Instr for min 2 years, trained 50 students to Basic License (IPPI4)		Instructed 15 students to APPI3, involved with 5 APPI instructor qualifications		Invited to be an "Expert" by the SHV-FSVL. Must be a long standing instructor of national reknown.

Question / License Level	British	Germany	USHPA	Australia	Canada (HPAC)
Instructor Evaluator					
- Min flights					
- Min hours					
- Time/license prerequisites	Unknown	Unknown	P3, 200 hrs, FOI exam, training clinic, evaluation and apprenticeship time.	Unknown	Unknown

Comments: South Africa's current and proposed requirement of training 50 students to a Basic License is higher than the 15 required by APPI. The Swiss use an "invite" system and the US require exams, clinics, evaluation and apprenticeship time.

SAHPA Accident Data

The following are the accident data captured by SAHPA since January 2014 and available for analysis in an electronic data

12. Increasing the sport license from 125 flights to 200 flights

SUM of Count Experience flight	License					Grand Total
	Basic	Foreign	Instr	Sport	Unknown	
[1,125)	11					11
[125,200)	3			2		5
[200,300)	4				1	5
[300,400)			2		3	5
[400,500)			1		3	4
[500,600)	2		1			3
[600,700)					2	2
[800,900)	1					1
[900,1000)				2		2
1000+	1		3	2	3	10
Unknown	5		9		2	22
Grand Total	27		16	4	15	70

Data Period: 01 Jan 2014 to Oct 2020

Section 1 of 6 ▾ PG

Primary incident report 1 of 2 ▾ Primary

Incident vs Accident 1 of 2 ▾ Accident

Type: Tandem, Stude... 1 of 4 ▾ Solo

Comments: 2 of the 19 (4 Instructors and 15 Sport license) were experienced by pilots who had less than 200 flights

13. Increasing the TFI (Grade C) requirement from 100 tandem flights to 200 tandem flights

A	B	C	D	E
<i>SUM of Count</i>	<i>License</i>			
<i>Experience flight</i>	<i>Instr</i>	<i>Std Tandem</i>	<i>Unknown</i>	<i>Grand Total</i>
[200,300)		2		2
[500,600)			1	1
[800,900)		1		1
1000+		15	2	17
Unknown		2	1	3
Grand Total		20	1	3
Data Period: 01 Jan 2014 to Oct 2020				
<div style="display: flex; justify-content: space-between;"> <div> <p>Section 1 of 6 ▾</p> <p>Primary incident report 1 of 2 ▾</p> <p>Incident vs Accident 1 of 2 ▾</p> <p>Type: Tandem, Stude... 1 of 4 ▾</p> </div> <div> <p>PG</p> <p>Primary</p> <p>Accident</p> <p>Tandem</p> </div> </div>				

Comments: There were no tandem accidents with TFI pilots who had less than 200 tandem flights. In fact the majority of accidents take place with pilots who have 1000+ flights. This is concerning when one of the changes proposed in Part 106 is to DECREASE the renewal requirements for instructors

Conclusion:

There is some evidence in the international numbers to increase the sport license requirements, though not supported by our own accident data. The argument that the accident data does not capture pilots who got a scare and left the sport (i.e. no accident) is questionable as to whether this is a safety issue or a retention issue and can this not be better solved with education instead of kicking the can down the road by increasing the flight numbers.

International requirements show that South Africa's current and proposed requirements are often higher and more prohibitive than elsewhere when it comes to Grade A, B, and C instructor ratings.

There is no evidence to support the claims that the sport will be safer with the proposed increased requirements however there is the very real risk that growth will be impeded - growth of pilots, growth of instructors, growth of the sport, and growth of the country.