Glider Known Proposals for 2016

Agenda 10.4: Advanced

Agenda 10.5: Unlimited

Introduction

Deadline for submission of glider Known sequence proposals was 01 July 2015. The proposals were de-identified and published together with the proposals package for sub-committees on 24 July.

The Glider Aerobatics Sub-Committee reviewed the proposals in its meeting on 03 August at Zbraslavice, Czech Republic. Sub-committee members were tasked to analyse, grade and rank the proposals. The analysis report is attached to this Agenda item.

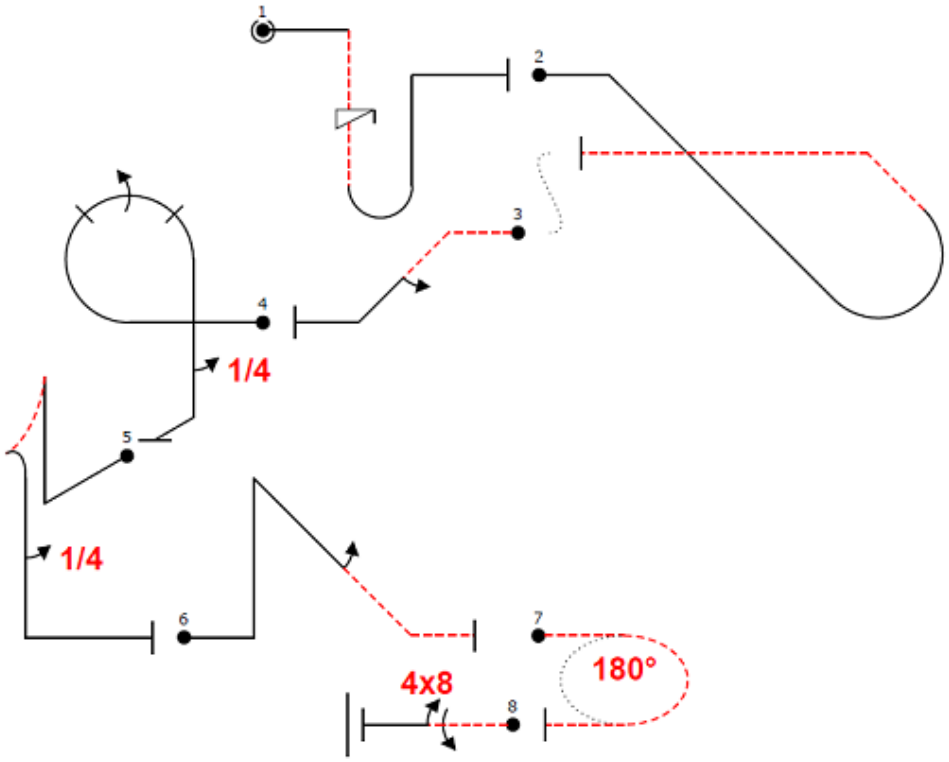
Should the Known Free proposal be adopted by CIVA, three sets each of five figures for Glider Advanced and Unlimited category are listed for Delegates to choose from.

Manfred Echter

Chairman, CIVA Glider Aerobatics Sub-Committee

KNOWN PROPOSALS FOR 2016 -- GLIDERS

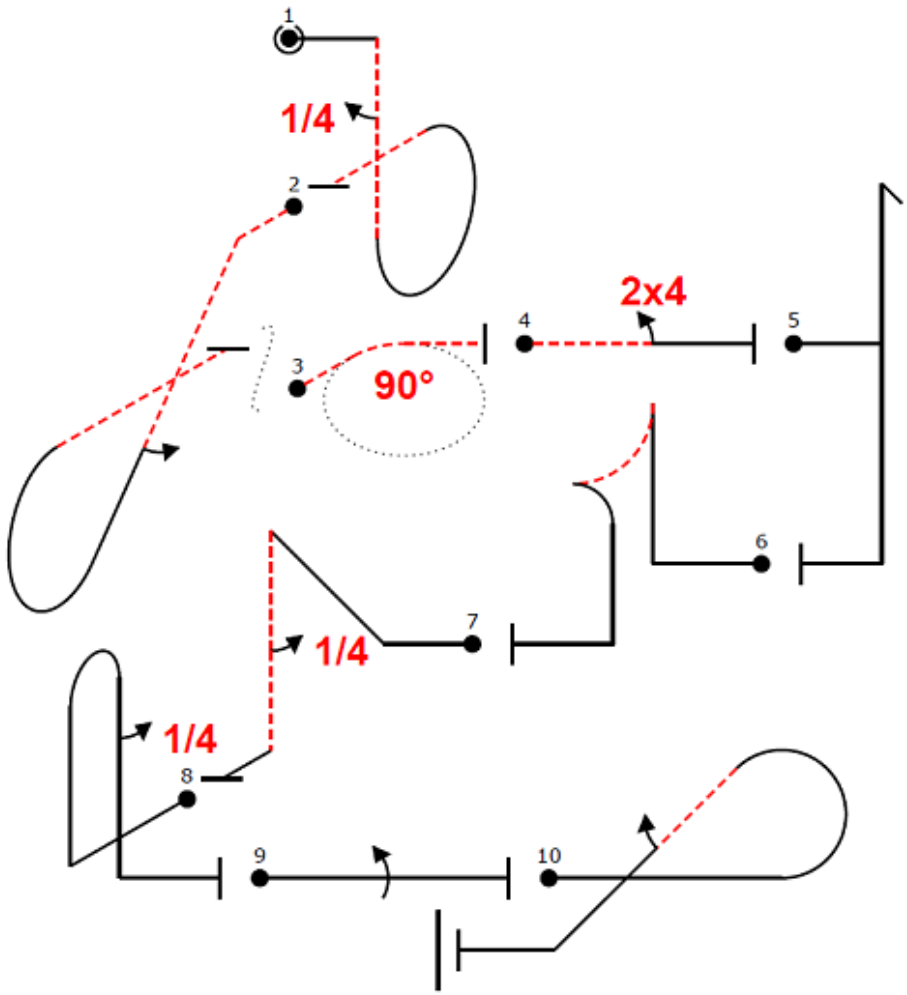
FAI AEROBATICS COMMISSION	ADV PROPOSAL "A"	Form B
	Pilot ID	CIVA Glider Advanced Known	Flight #



Glider			
Fig 1	8.4.3.3 9.11.1.4	15 5	20
Fig 2	8.4.17.3	11	11
Fig 3	1.1.3.4 9.1.4.2	7 6	13
Fig 4	8.6.5.1 9.1.3.4 9.1.5.1	11 12 3	26
Fig 5	6.2.2.1 9.1.5.1	17 3	20
Fig 6	1.2.8.1 9.1.4.2	16 6	22
Fig 7	2.2.1.2	5	5
Fig 8	1.1.1.4 9.1.3.4 9.8.3.2	2 12 11	25
Total K = 142 (max K = 145)			

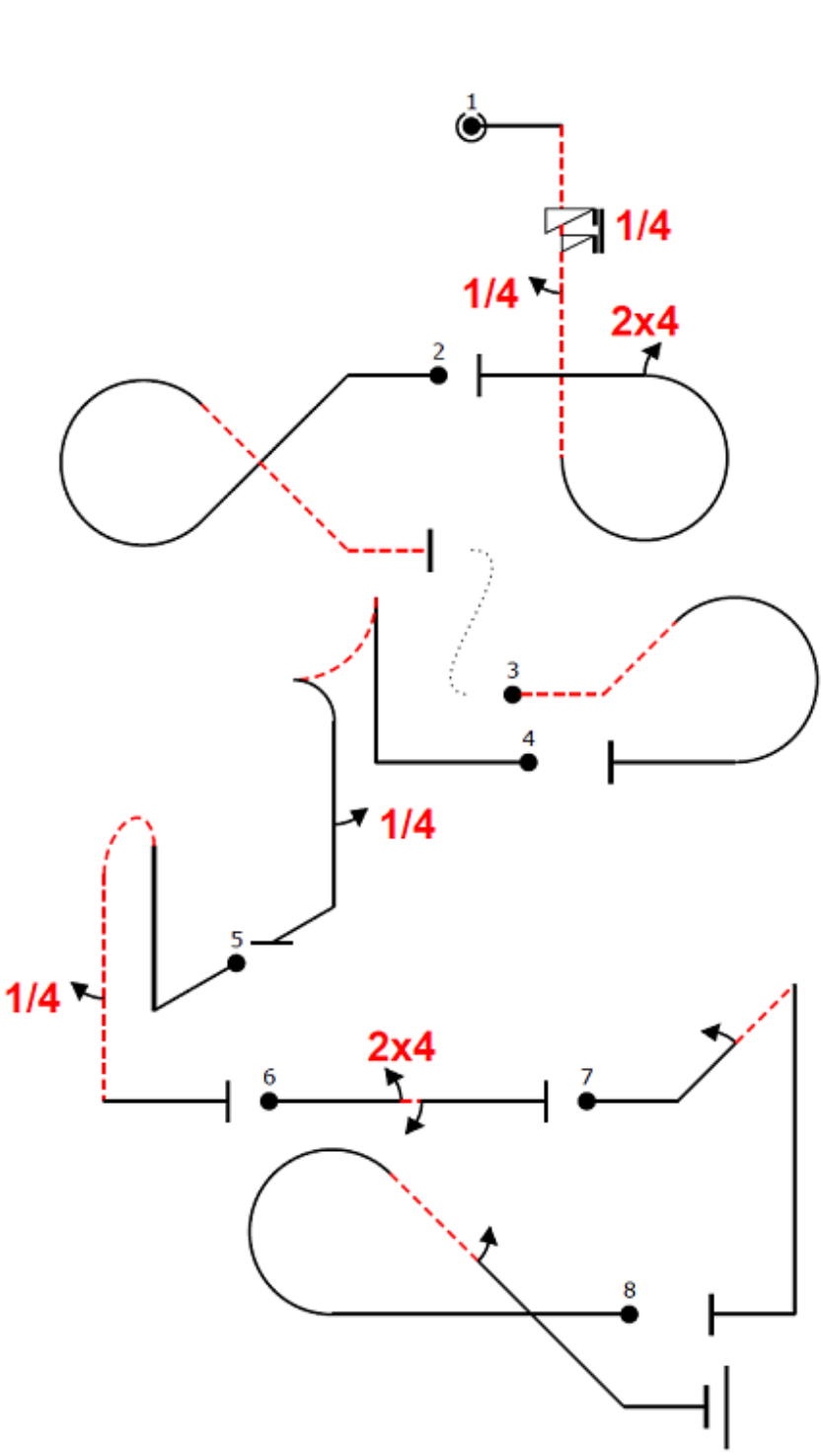
FAI AEROBATICS COMMISSION CIVA	ADV PROPOSAL "B"	Form B
	Pilot ID: CIVA Glider Advanced Known	Flight #

wind/vent



Glider			
Fig 1	8.6.3.3 9.1.5.1	13 3	16
Fig 2	8.5.2.4 9.1.4.2	11 6	17
Fig 3	2.1.1.2	4	4
Fig 4	1.1.1.4 9.4.3.2	2 8	10
Fig 5	5.2.1.1	17	17
Fig 6	6.2.2.1	17	17
Fig 7	1.2.1.1 9.1.5.1	13 3	16
Fig 8	8.4.1.1 9.1.5.1	13 3	16
Fig 9	1.1.1.1 9.1.3.4	2 12	14
Fig 10	8.5.6.1 9.1.4.2	10 6	16
Total K = 143 (max K = 145)			

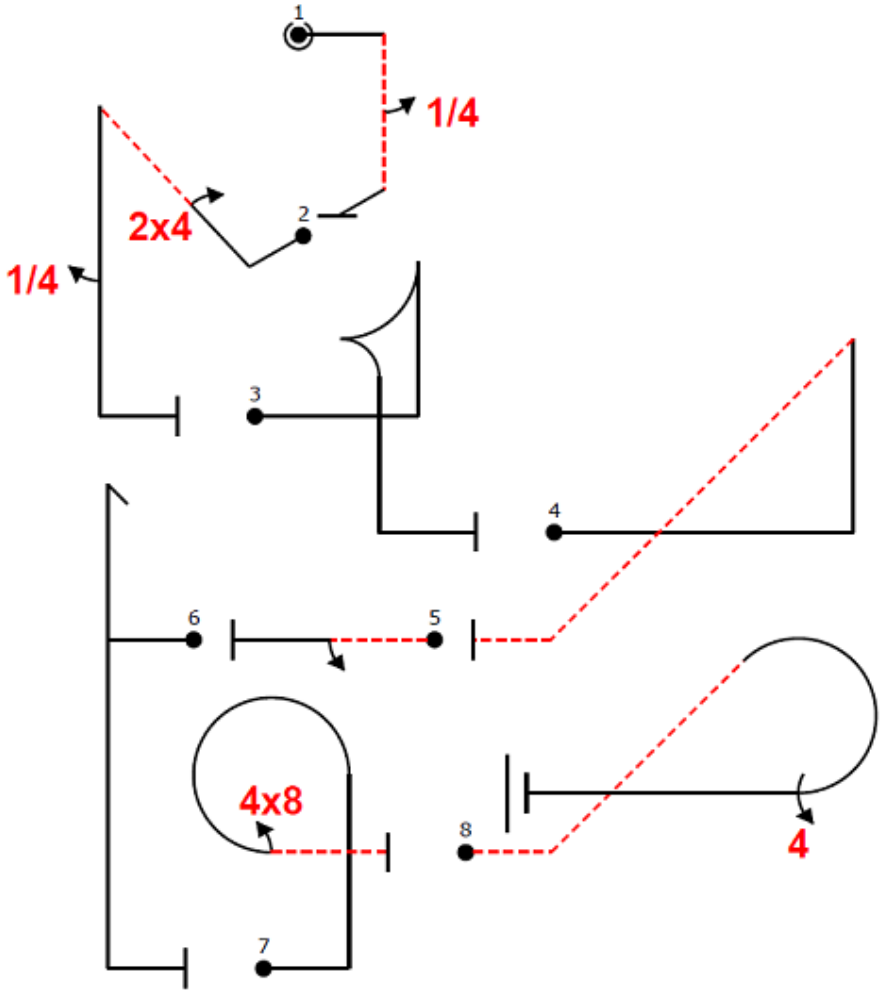
FAI CIVA AEROBATICS COMMISSION	**ADV PROPOSAL "C"**	Form B
	Pilot ID: CIVA Glider Advanced Known	Flight #



Glider			
Fig 1	8.6.4.3 9.11.1.5 9.1.5.1 9.4.3.2	13 6 3 8	30
Fig 2	7.3.1.3	14	14
Fig 3	8.5.1.2	10	10
Fig 4	6.2.2.1 9.1.5.1	17 3	20
Fig 5	8.4.3.1 9.1.5.1	15 3	18
Fig 6	1.1.1.1 9.4.3.2 9.1.3.2	2 8 6	16
Fig 7	1.2.3.1 9.1.2.2	12 9	21
Fig 8	8.5.6.1 9.1.4.2	10 6	16
Total K = 145 (max K = 145)			

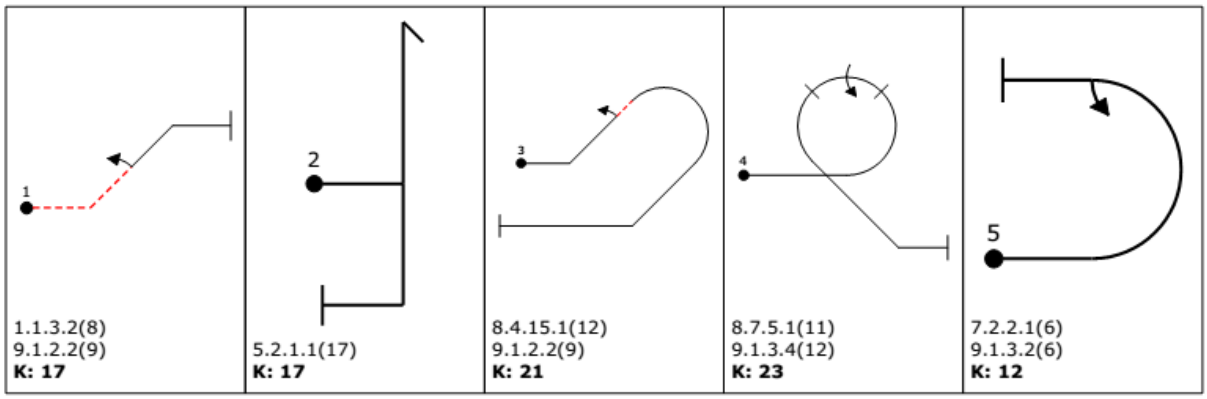
FAI AEROBATICS COMMISSION CIVA	**ADV PROPOSAL "D"**	Form B
Pilot ID	CIVA Glider Advanced Known	Flight #

wind/vent



Glider			
Fig 1	1.1.6.3 9.1.5.1	10 3	13
Fig 2	1.2.3.1 9.4.2.2 9.1.5.1	12 11 3	26
Fig 3	6.2.1.1	17	17
Fig 4	1.2.5.1	14	14
Fig 5	1.1.1.4 9.1.3.2	2 6	8
Fig 6	5.2.1.1	17	17
Fig 7	8.6.2.1 9.8.3.2	12 11	23
Fig 8	8.5.1.2 9.4.3.4	10 17	27
Total K = 145 (max K = 145)			

Glider Advanced Known Free Proposal A



1.1.3.2(8)
9.1.2.2(9)
K: 17

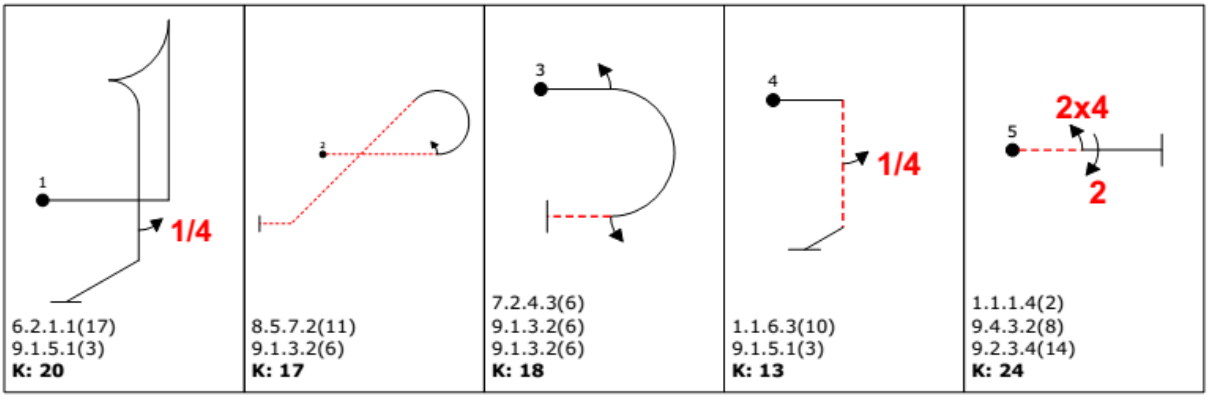
5.2.1.1(17)
K: 17

8.4.15.1(12)
9.1.2.2(9)
K: 21

8.7.5.1(11)
9.1.3.4(12)
K: 23

7.2.2.1(6)
9.1.3.2(6)
K: 12

Glider Advanced Known Free Proposal B



6.2.1.1(17)
9.1.5.1(3)
K: 20

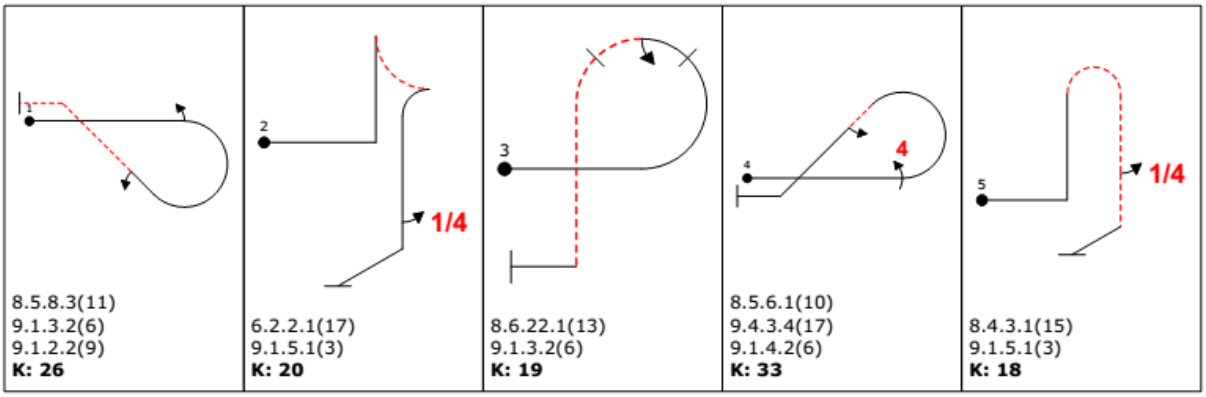
8.5.7.2(11)
9.1.3.2(6)
K: 17

7.2.4.3(6)
9.1.3.2(6)
9.1.3.2(6)
K: 18

1.1.6.3(10)
9.1.5.1(3)
K: 13

1.1.1.4(2)
9.4.3.2(8)
9.2.3.4(14)
K: 24

Glider Advanced Known Free Proposal C



8.5.8.3(11)
9.1.3.2(6)
9.1.2.2(9)
K: 26

6.2.2.1(17)
9.1.5.1(3)
K: 20

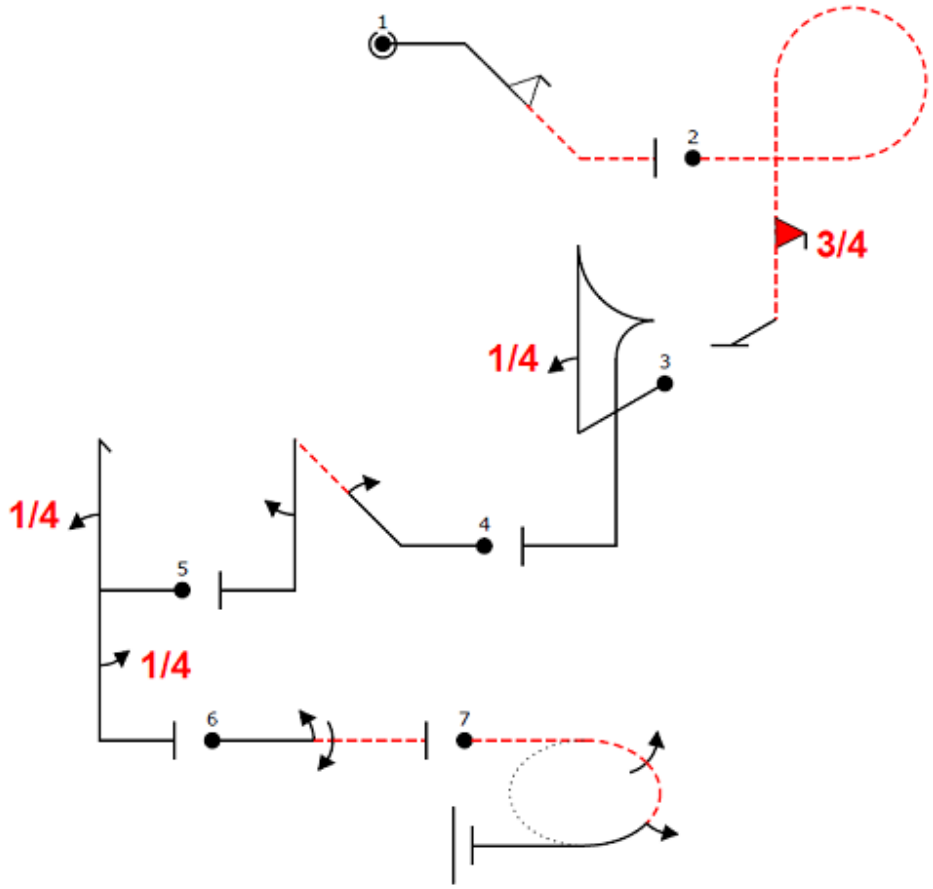
8.6.22.1(13)
9.1.3.2(6)
K: 19

8.5.6.1(10)
9.4.3.4(17)
9.1.4.2(6)
K: 33

8.4.3.1(15)
9.1.5.1(3)
K: 18

FAI AEROBATICS COMMISSION CIVA	**UNL PROPOSAL "A"**	Form B
Pilot ID	CIVA Glider Unlimited Known	Flight #

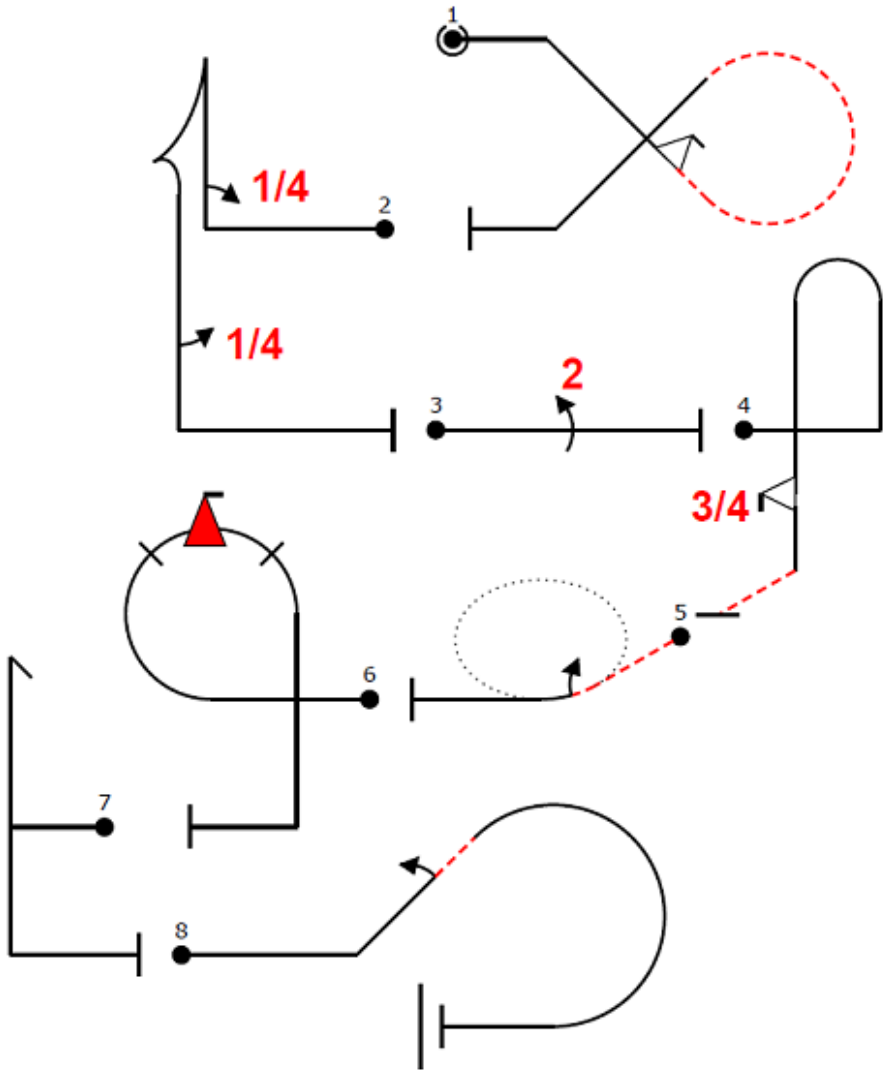
wind/vent



Glider			
Fig 1	1.1.3.3 9.9.4.2	8 12	20
Fig 2	8.6.6.2 9.10.5.3	15 17	32
Fig 3	6.2.1.1 9.1.1.1	17 9	26
Fig 4	1.2.3.1 9.1.2.2 9.1.5.2	12 9 6	27
Fig 5	5.2.1.1 9.1.1.1 9.1.5.1	17 9 3	29
Fig 6	1.1.1.3 9.1.3.2 9.1.3.4	2 6 12	20
Fig 7	2.2.3.4	35	35
Total K = 189 (max K = 190)			

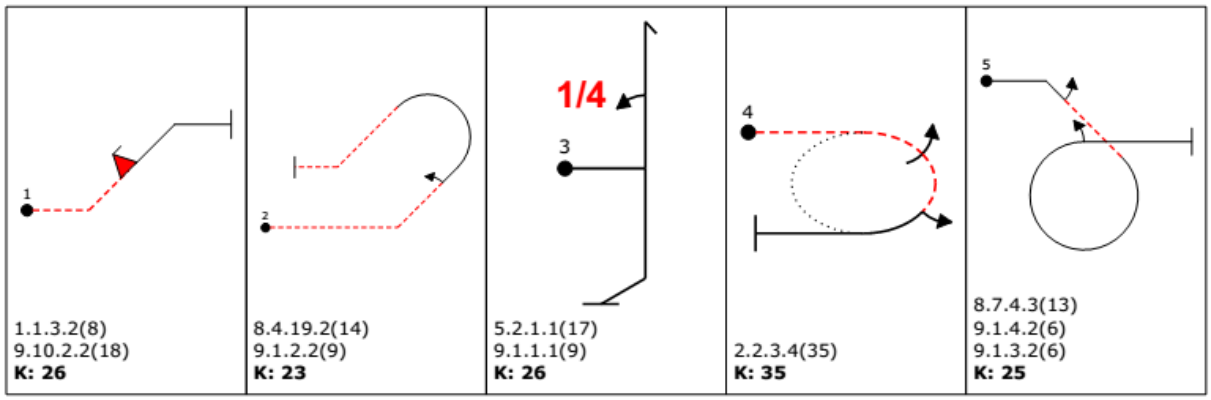
FAI AEROBATICS COMMISSION CIVA	**UNL PROPOSAL "B"**	Form B
Pilot ID	CIVA Glider Unlimited Known	Flight #

wind/vent



Glider			
Fig 1	7.3.2.3 9.9.4.2	17 12	29
Fig 2	6.2.1.1 9.1.1.1 9.1.5.1	17 9 3	29
Fig 3	1.1.1.1 9.2.3.4	2 14	16
Fig 4	8.4.2.1 9.9.5.3	14 14	28
Fig 5	2.1.2.2	19	19
Fig 6	8.6.5.1 9.10.8.4	11 22	33
Fig 7	5.2.1.1	17	17
Fig 8	8.5.2.1 9.1.2.2	10 9	19
Total K = 190 (max K = 190)			

Glider Unlimited Known Free Proposal A



1.1.3.2(8)
9.10.2.2(18)
K: 26

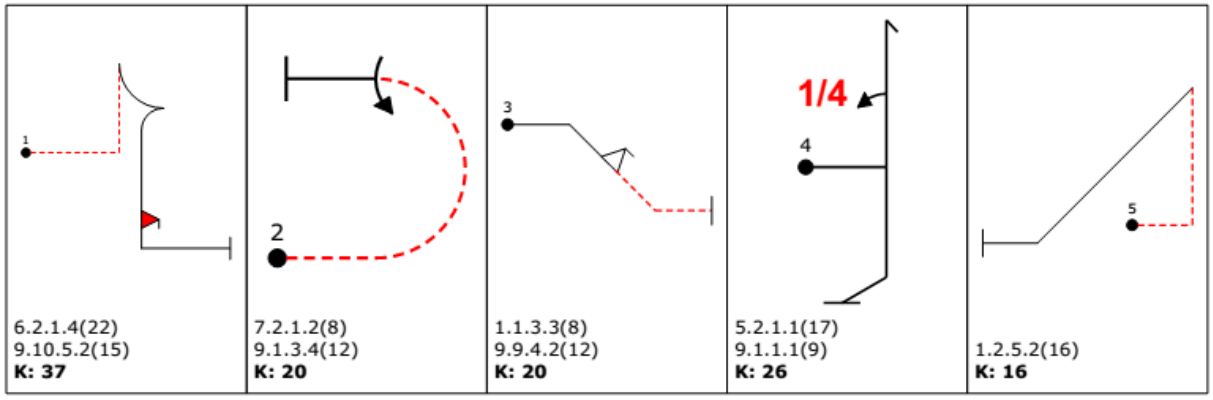
8.4.19.2(14)
9.1.2.2(9)
K: 23

5.2.1.1(17)
9.1.1.1(9)
K: 26

2.2.3.4(35)
K: 35

8.7.4.3(13)
9.1.4.2(6)
9.1.3.2(6)
K: 25

Glider Unlimited Known Free Proposal B



6.2.1.4(22)
9.10.5.2(15)
K: 37

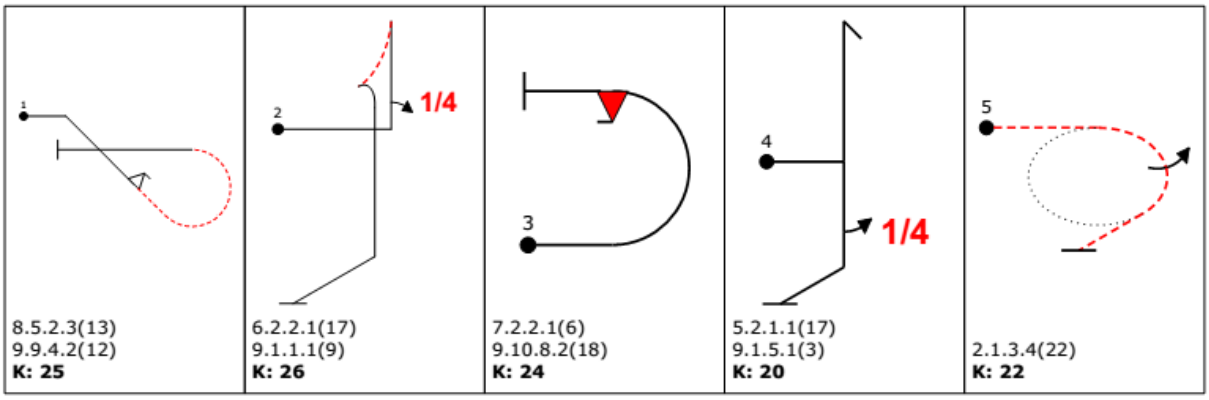
7.2.1.2(8)
9.1.3.4(12)
K: 20

1.1.3.3(8)
9.9.4.2(12)
K: 20

5.2.1.1(17)
9.1.1.1(9)
K: 26

1.2.5.2(16)
K: 16

Glider Unlimited Known Free Proposal C



8.5.2.3(13)
9.9.4.2(12)
K: 25

6.2.2.1(17)
9.1.1.1(9)
K: 26

7.2.2.1(6)
9.10.8.2(18)
K: 24

5.2.1.1(17)
9.1.5.1(3)
K: 20

2.1.3.4(22)
K: 22

Glider Known Sequence Analysis 2016

The analyses are presented in table form and the sequences are ranked and graded on a scale of 0 to 10.

For easy reference a table is added at the end of this document listing the ranks awarded by the evaluators.

Pekka Havbrandt's Analysis

ADVANCED Proposal A

Safety: Risk of over-g in #1 Low inverted turn #7	**Grade:** **6 out of 10**
Framing / Energy: Compact sequence.	**Rank:** **3**
Interest: Selective sequence.	

ADVANCED Proposal B

Safety: Safe sequence. All negative difficulties are at high altitude.	**Grade:** **7 out of 10**
Framing / Energy: May cause altitude problems if not carefully energy managed.	**Rank:** **2**
Interest: Selective with two side wind corrections!	

ADVANCED Proposal C

Safety: Safe sequence.	**Grade:** **8 out of 10**
Framing / Energy: Compact sequence. #6 roll combination is correctly against the wind	**Rank:** **1**
Interest: The first manoeuvre is new and interesting. Selective and interesting sequence.	

ADVANCED Proposal D

Safety: Safe sequence. The inverted push at #8 is upwards.	**Grade:** **5 out of 10**
Framing / Energy: No energy management problems. The side wind corrections are at the very beginning. #4 and #5 combination is difficult in strong tailwind	**Rank:** **4**
Interest: Very normal sequence Not very selective.	

UNLIMITED Proposal A

Safety: Safe sequence. The inverted snap at #2 is at altitude. Altitude for the rolling circle as last manoeuvre should not be a problem with only 7 figures	**Grade:** **6 out of 10**
Framing / Energy: Compact sequence. No energy management problems.	**Rank:** **2**
Interest: Not very selective, only two challenging figures #2 and #7.	

UNLIMITED Proposal B

Safety: Safe sequence.	**Grade:** **8 out of 10**
Framing / Energy: Compact sequence. No energy management problems.	**Rank:** **1**
Interest: With 3 snap rolls and a nice tail slide this is an interesting and selective sequence.	

Jyrki Viitasaari's Analysis

ADVANCED Proposal A

Safety: Height consumption in first two figures Risk for over speed in # 4 Low inverted turn	**Grade: 7 out of 10**
Framing / Energy: No problems	**Rank: 3**
Interest: Difficult sequence.	

ADVANCED Proposal B

Safety: Flyable with most of gliders	**Grade: 8 out of 10**
Framing / Energy: Energy control between # 4 & 5	**Rank: 1**
Interest: Positioning friendly	

ADVANCED Proposal C

Safety: No problems	**Grade: 7 out of 10**
Framing / Energy: Unfavourable for slow roll-rate gliders Cross-box-figures early in sequence No height problems	**Rank: 4**
Interest:	

ADVANCED Proposal D

Safety: Height consumption #1, #2 and #7	**Grade: 7 out of 10**
Framing / Energy: Unfavourable for slow roll-rate gliders Cross-box-figures o.k.	**Rank: 2**
Interest:	

Manfred Echter's Analysis

Advanced Proposal A

Safety: Risk of over-g in pullup of #1 Risk of overspeed on downline of #4 Low inverted turn (#7)	**Grade:** **6 out of 10**
Framing / Energy: #8 difficult with stronger tailwind Crosswind passage good	**Rank:** **1**
Interest: Challenging sequence; adequately selective for WAGAC level; risks acceptable in a Known	

Advanced Proposal B

Safety: No risks	**Grade:** **5 out of 10**
Framing / Energy: #2 flown towards or away from judges; impossible to judge properly #4 must be flown descending to gain speed for #5	**Rank:** **4**
Interest: Simple sequence; judging problematic	

Advanced Proposal C

Safety: #1 risk of overspeed with slow-rolling gliders	**Grade:** **5 out of 10**
Framing / Energy: No problems	**Rank:** **3**
Interest: All challenges concentrated in #1;remainder simple	

Advanced Proposal D

Safety: No risks	**Grade:** **6 out of 10**
Framing / Energy: #2 difficult for slow-rolling gliders Cross-box element early Line between #7 & #8 challenging in strong headwind	**Rank:** **2**
Interest: Challenging sequence; difficult for slow-rolling gliders	

Unlimited Proposal A

Safety: No risks Height consumption o.k.	**Grade:** **7 out of 10**
Framing / Energy: Energy management good No framing problems	**Rank:** **1**
Interest: Adequately challenging for WGAC level	

Unlimited Proposal B

Safety: No risks	**Grade:** **6 out of 10**
Framing / Energy: No framing or energy problems	**Rank:** **2**
Interest: Only really interesting fig. is #6 Less challenging than Prop. A	

Advanced Sequence Rankings

Sequence	A	B	C	D
Havbrandt	**3**	**2**	**1**	**4**
Viitasaari	**3**	**1**	**4**	**2**
Echter	**1**	**4**	**3**	**2**

Unlimited Sequence Rankings

Sequence	A	B
Havbrandt	**2**	**1**
Echter	**1**	**2**