

FÉDÉRATION AÉRONAUTIQUE INTERNATIONALE



CATALOGUE OF GLIDER AEROBATIC FIGURES (GAF)

Adopted by the FAI Aerobatics
Commission (CIVA), 1990

Version 2002-1

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FAI CATALOGUE OF GLIDER AEROBATIC FIGURES

Introduction and Acknowledgements

The FAI Catalogue of Glider Aerobic Figures was approved by CIVA at its meeting in London in November 1990. It will be used for all glider aerobic competitions from 1991 on. These pages are printed in a different color so they can be easily differentiated from the white pages that appear in the FAI Aerobic Catalogue. These pages can be inserted into the plastic sleeves in the catalogue or used separately. Please note that the pages are numbered the same as the FAI Catalogue and, therefore, gaps may seem to exist in this document. They do not. The same is true for certain figures that have been omitted from the GAF. The gaps are intentional.

It should be noted that the K factors appearing in the "Description of Catalogue" and "Method of Evaluation" of the FAI Aerobic Catalogue do not always apply to the FAI Catalogue of Glider Aerobic Figures. However, the enumeration system is the same. Adjustments to K factors have been made by CIVA to take into account the difficulty in flying figures in gliders versus powered aircraft.

CIVA pays special tribute to Heinz Clasen of Germany who, in 1977, created the "Bewertungssystem ALFA für Segelkunstflug" which was the basis on which subsequent glider aerobic contests were held. Collaborating on this system with him were Victor de Beauclair, Josef Hoessl, and Helmut Laurson, all from Germany. The ALFA catalogue was replaced by a decision of CIVA in 1991 by the FAI Catalogue of Glider Aerobic Figures.

The adaptation of the FAI Aerobic Catalogue for use in glider aerobatics was undertaken in 1990 by the following: Karl Berger, Chairman, Austria; Madelyne Delcroix-Katona, France; Manfred Echter, Germany; Bob O'Dell, USA; Gerd Ottensmann, Germany; and Ray Rose, USA. Our thanks to these people for their hard work.

Michael R. Heuer
President
FAI Aerobic Commission (CIVA)

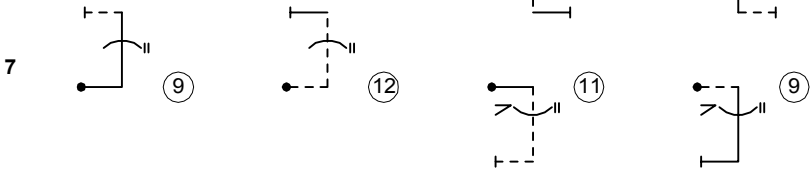
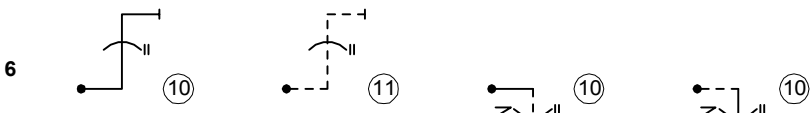
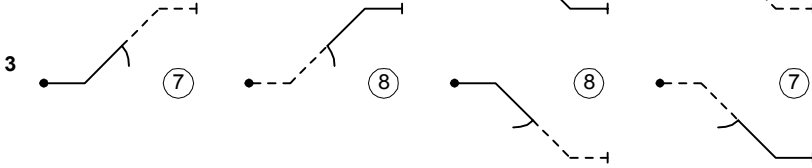
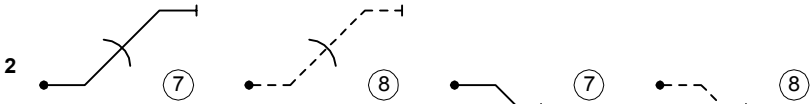
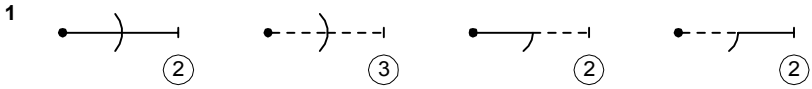
Cordova, Tennessee, USA
January 1991

FAI CATALOGUE OF GLIDER AEROBATIC FIGURES

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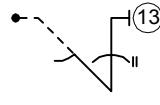
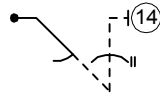
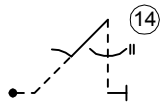
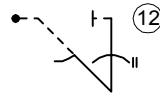
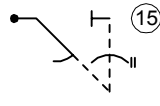
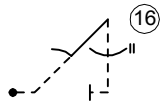
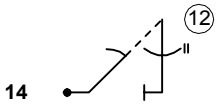
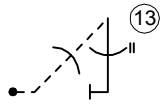
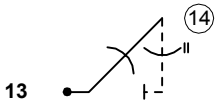
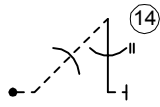
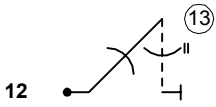
1. LINES AND ANGLES



1
2
3
4

FAI CATALOGUE OF GLIDER AEROBATIC FIGURES

1.



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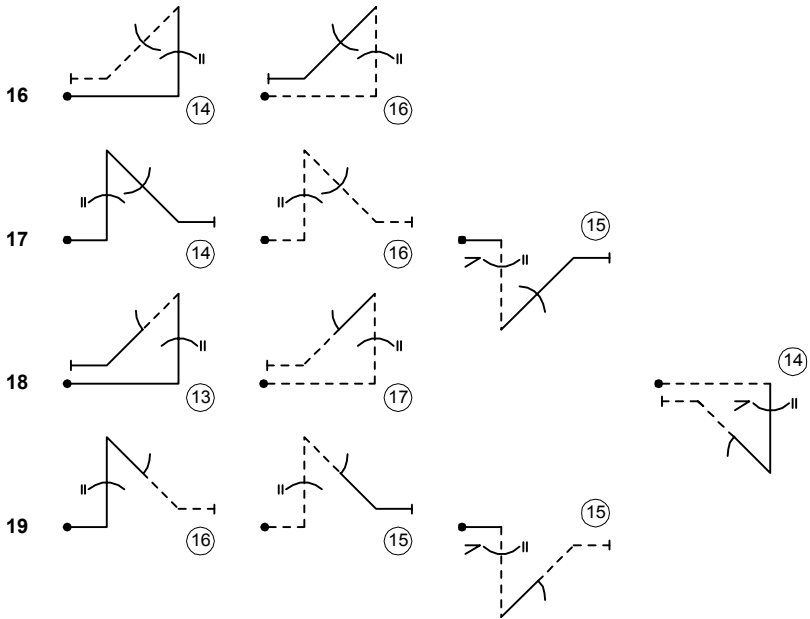
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FAI CATALOGUE OF GLIDER AEROBATIC FIGURES

1.



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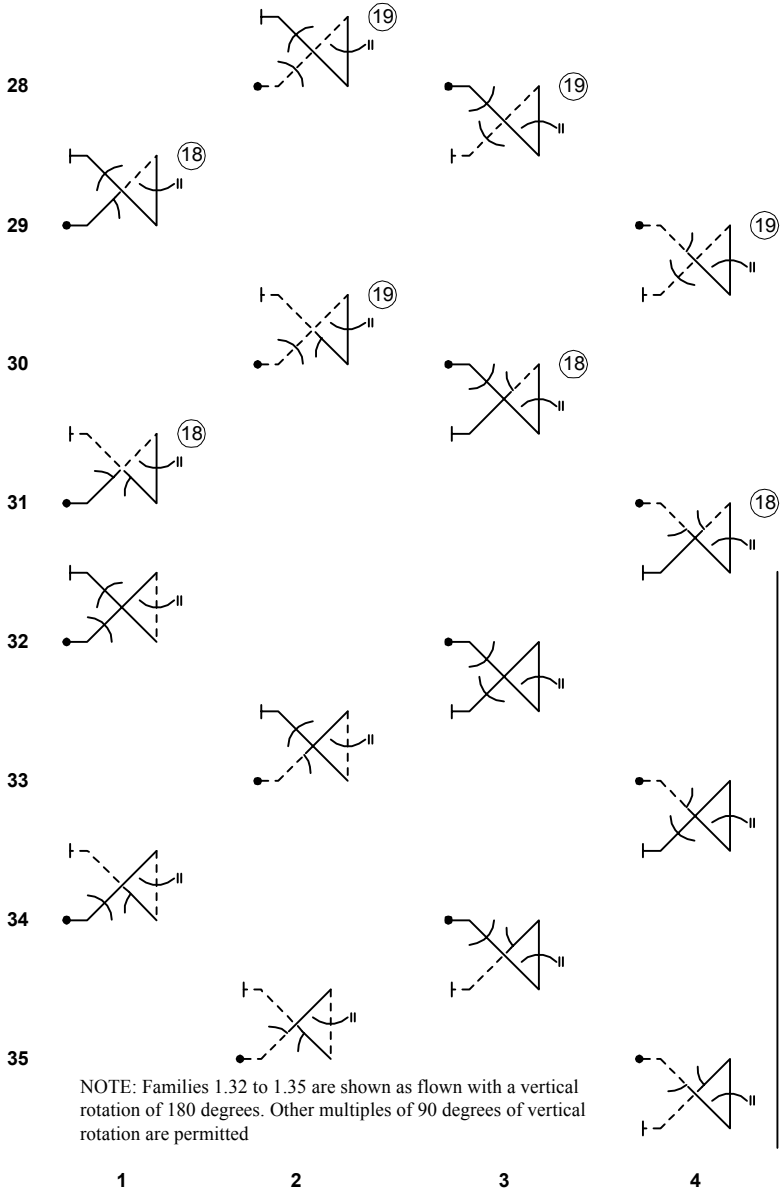
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3

4

FAI CATALOGUE OF GLIDER AEROBATIC FIGURES

1.



NOTE: Families 1.32 to 1.35 are shown as flown with a vertical rotation of 180 degrees. Other multiples of 90 degrees of vertical rotation are permitted

1

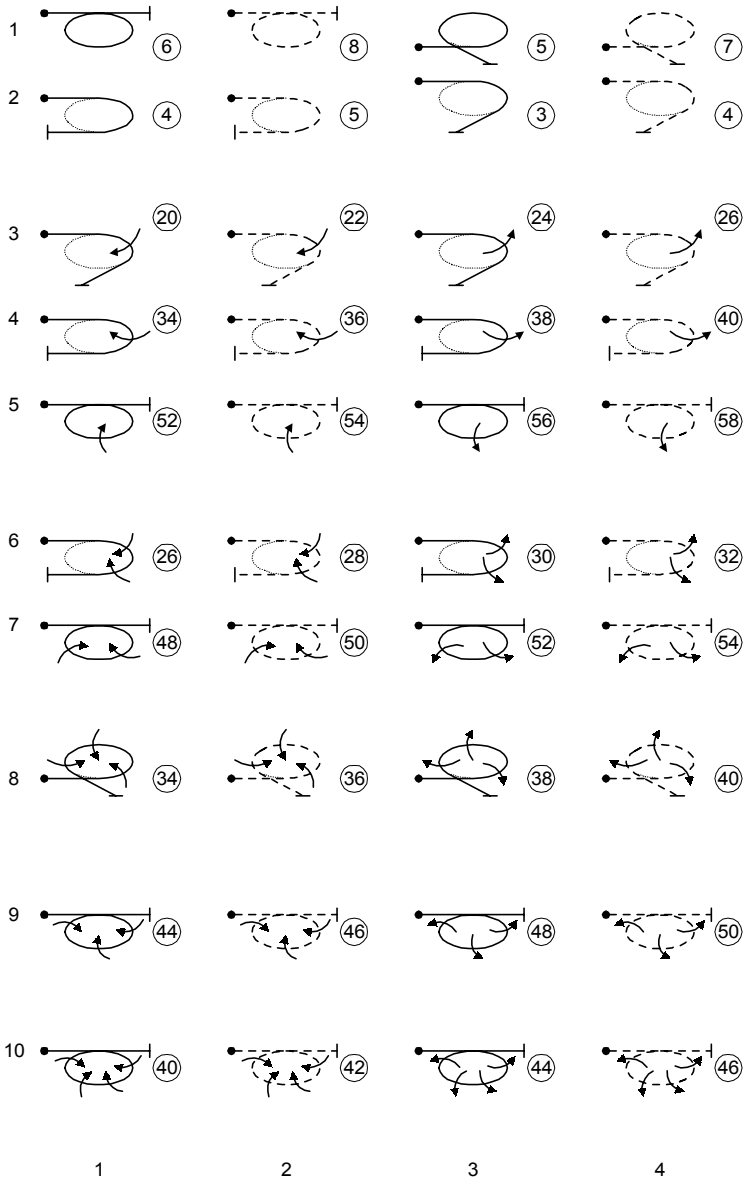
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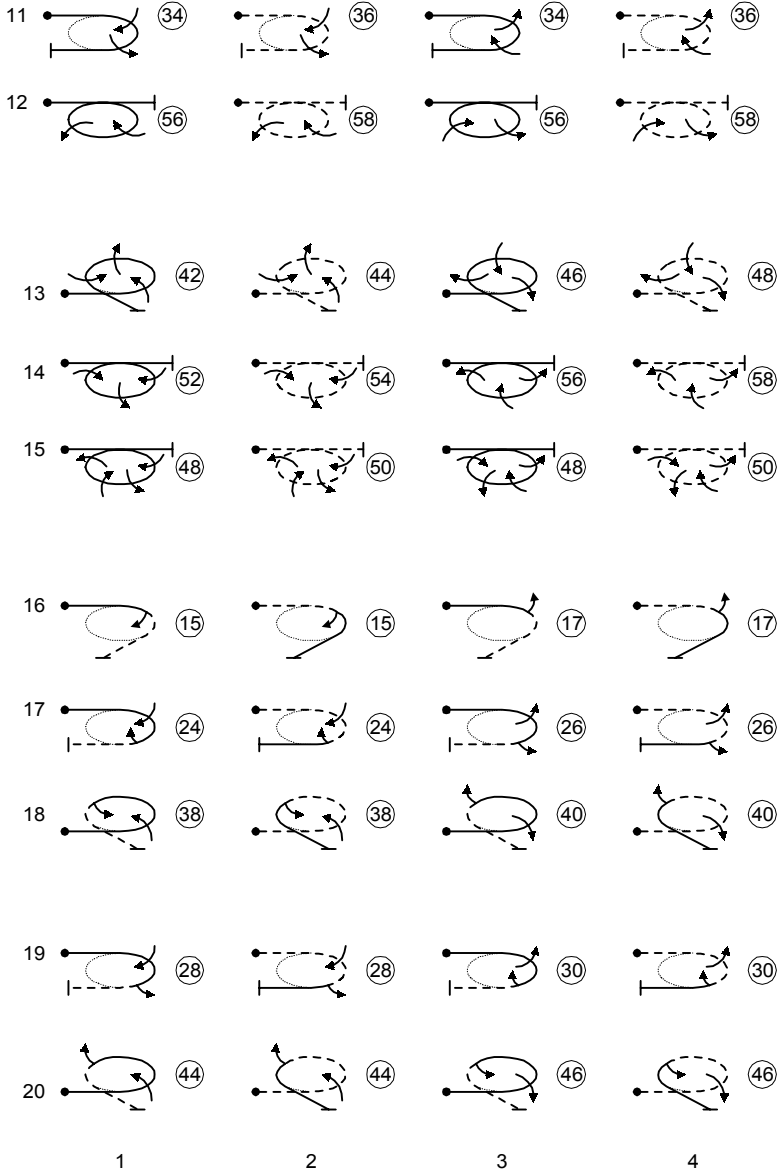
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2. TURNS AND ROLLING TURNS



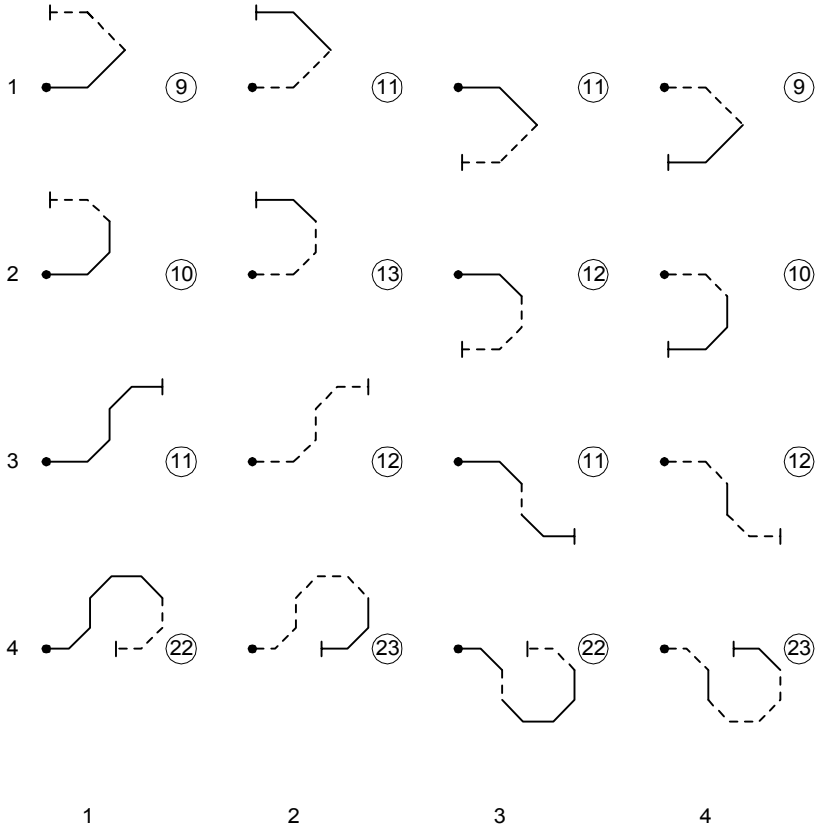
FAI CATALOGUE OF GLIDER AEROBATIC FIGURES

2.



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3. COMBINATIONS OF LINES

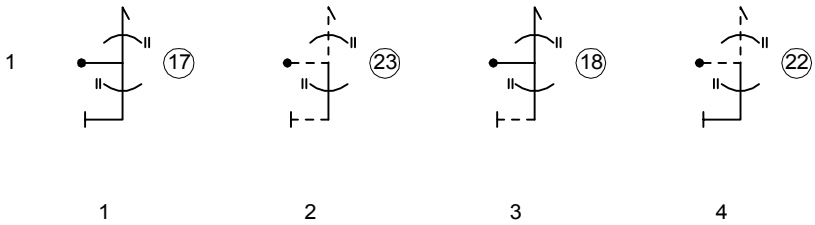


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FAI CATALOGUE OF GLIDER AEROBATIC FIGURES

5. STALL TURNS

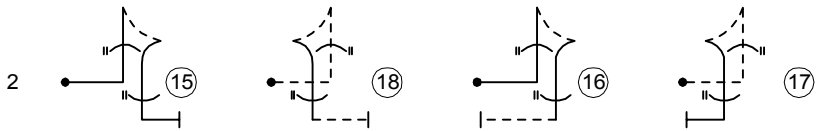
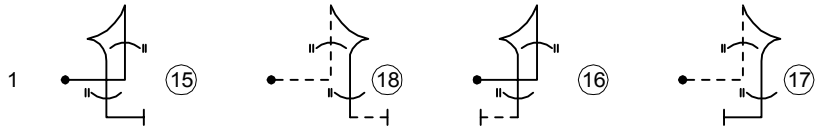


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6. TAILSLIDES



1

2

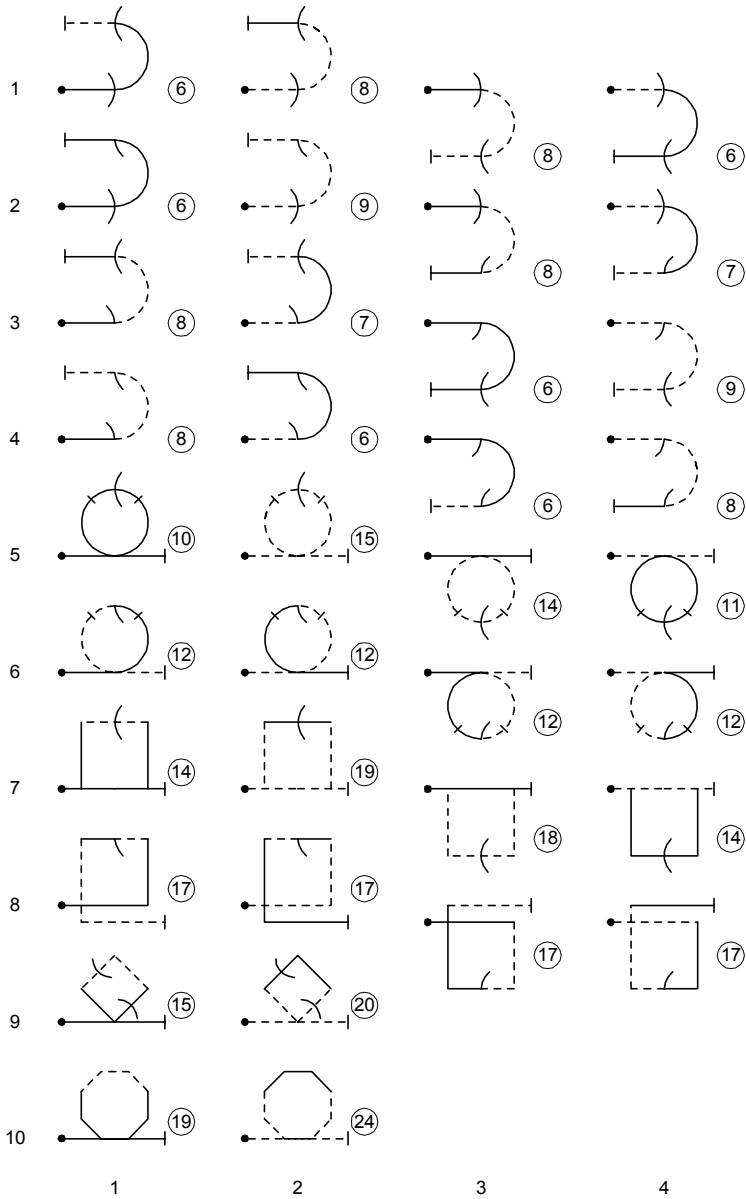
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4

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7. LOOPS AND EIGHTS

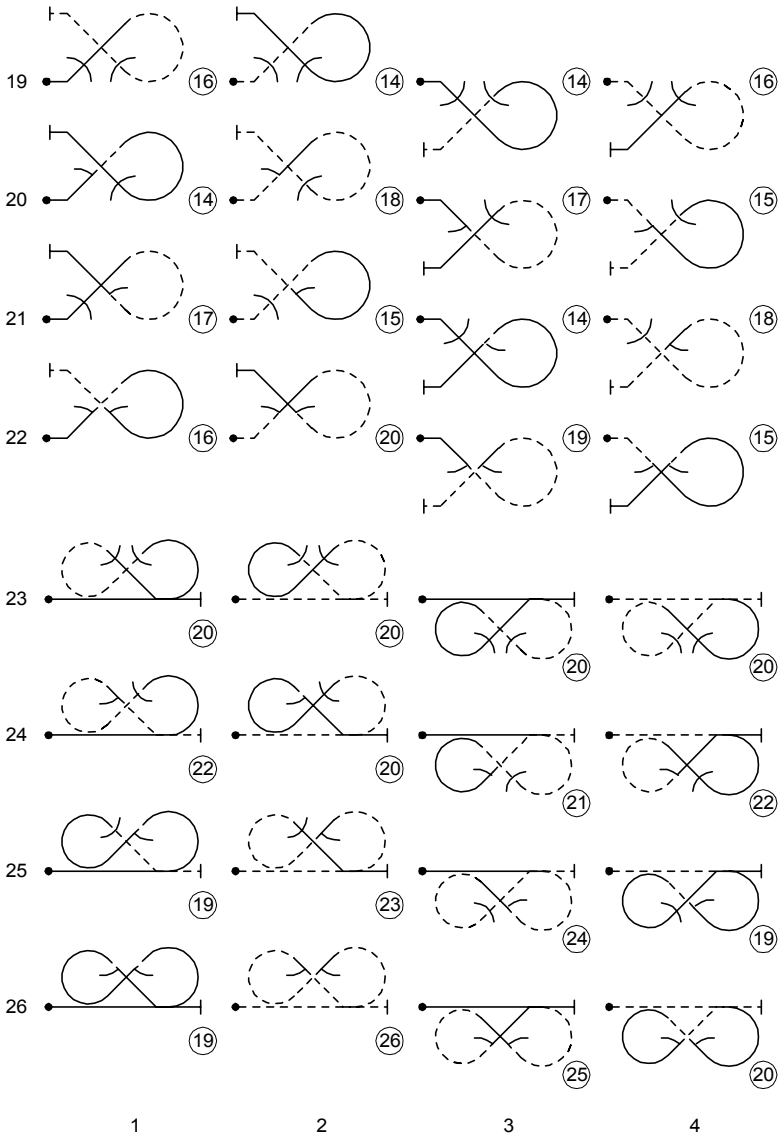



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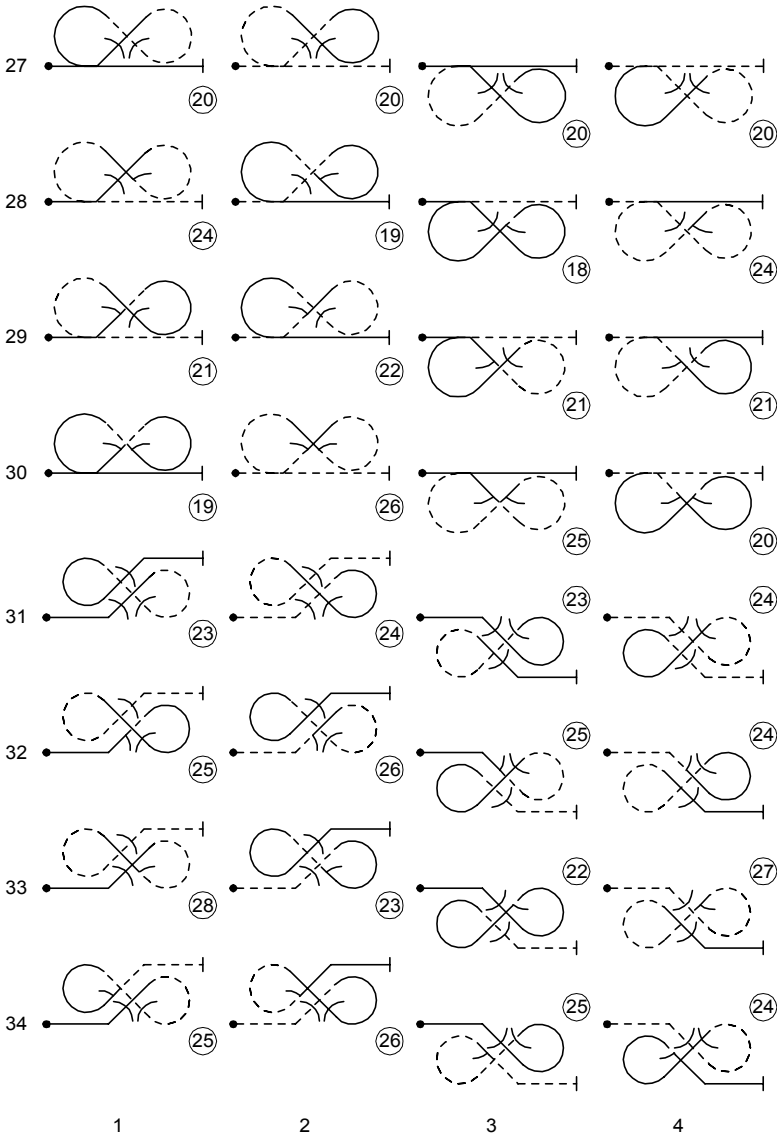
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


NOTE: At the sign , only half-rolls permitted.

FAI CATALOGUE OF GLIDER AEROBATIC FIGURES

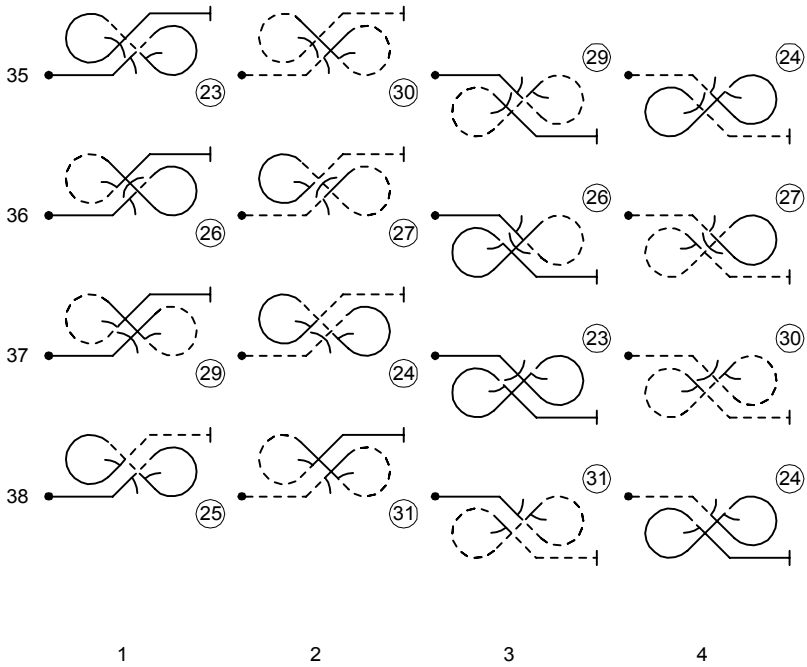
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NOTE: At the sign  only half-rolls permitted.

FAI CATALOGUE OF GLIDER AEROBATIC FIGURES

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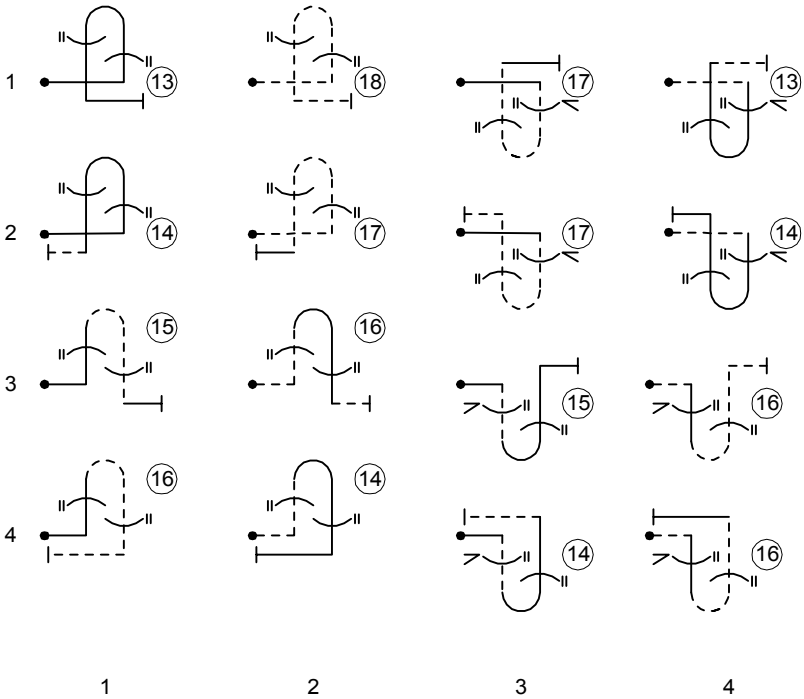
NOTE: At the sign only half-rolls permitted.

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FAI CATALOGUE OF GLIDER AEROBATIC FIGURES

8. COMBINATIONS OF LINES, ANGLES AND LOOPS

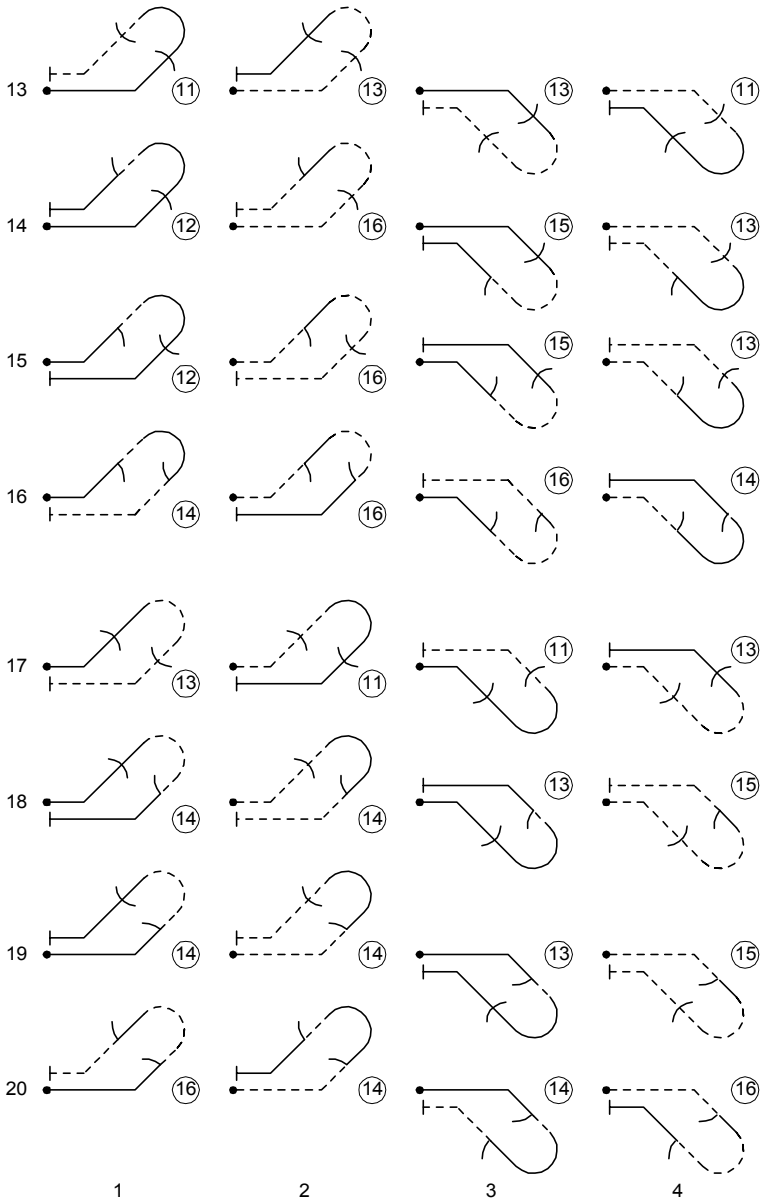


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FAI CATALOGUE OF GLIDER AEROBATIC FIGURES

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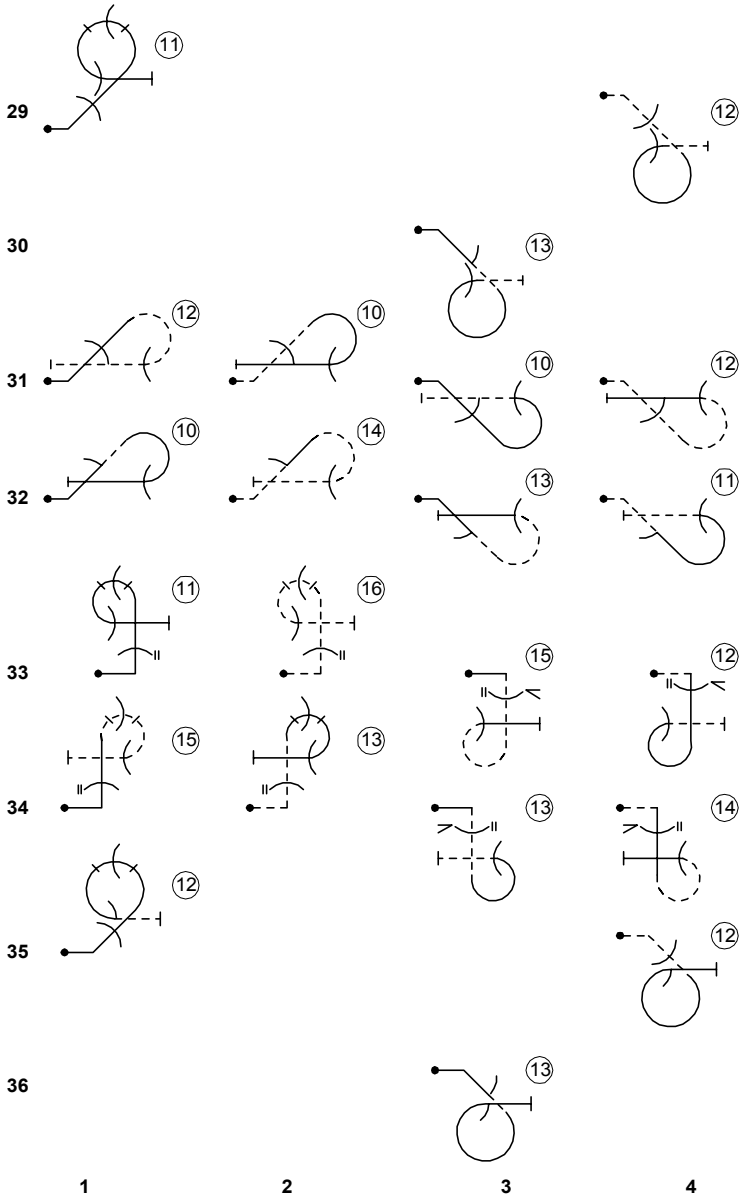


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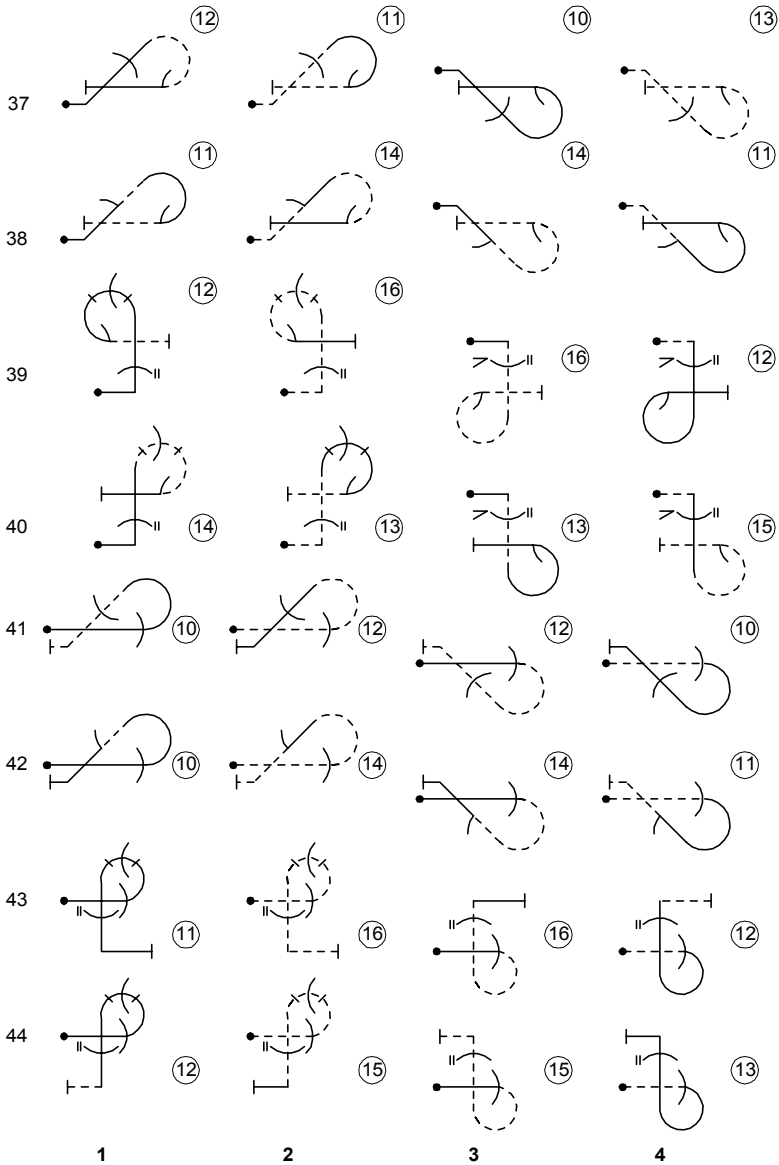
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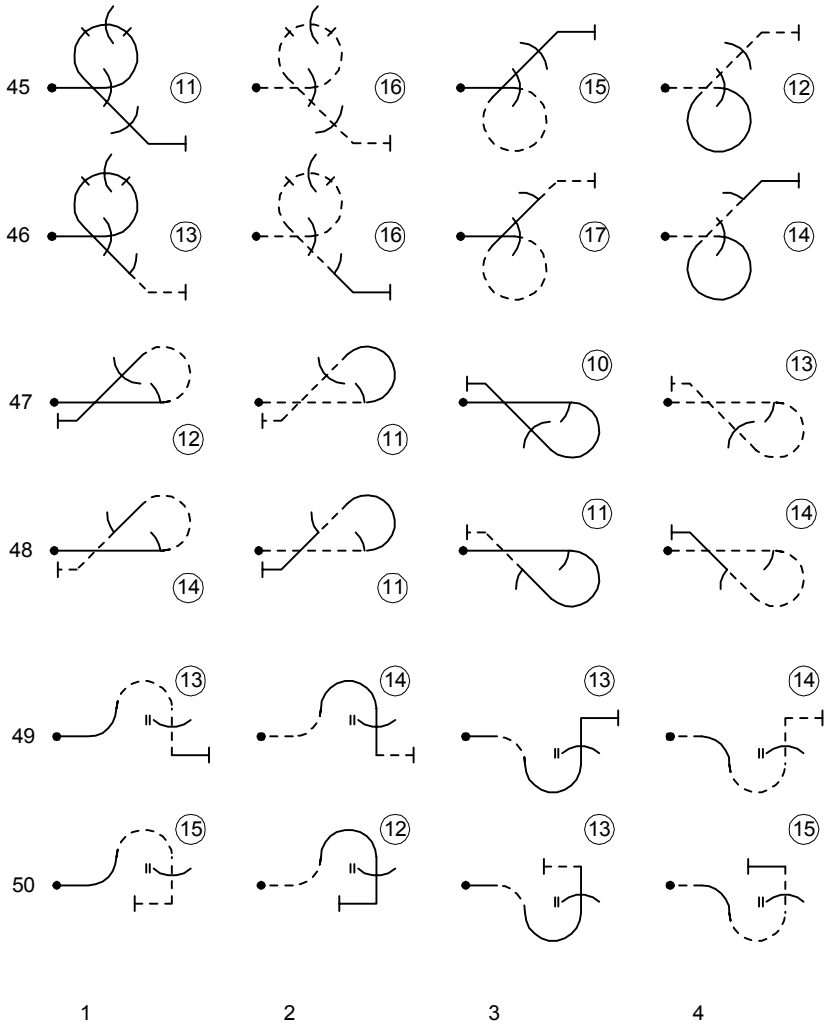
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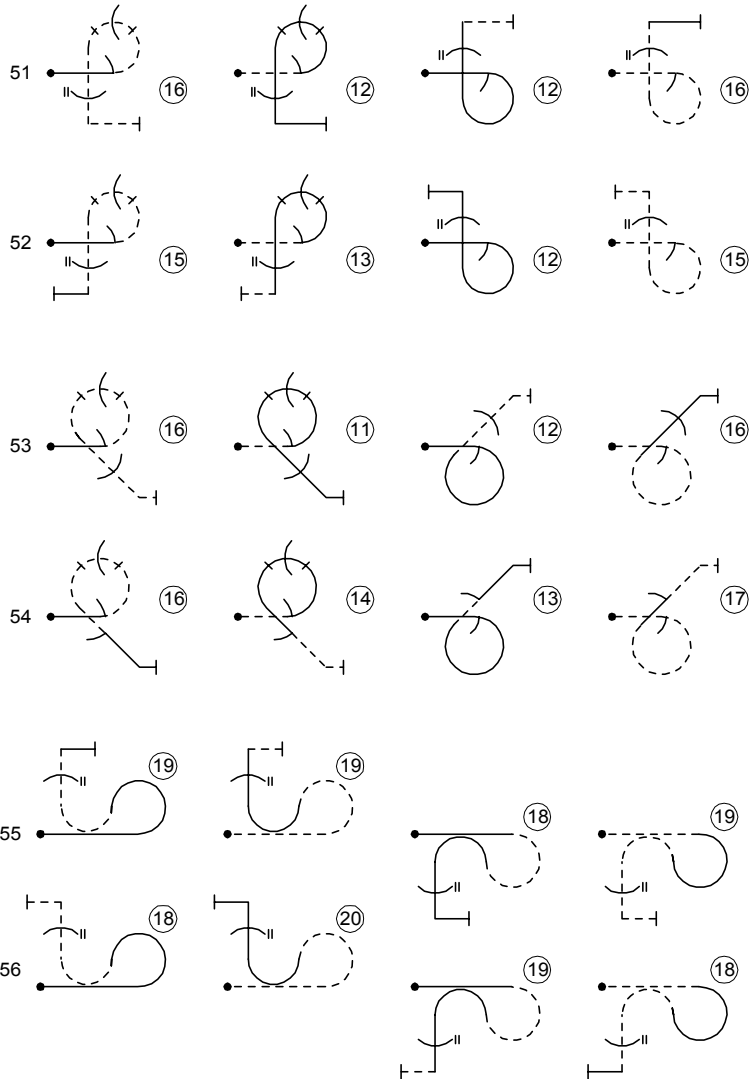
FAI CATALOGUE OF GLIDER AEROBATIC FIGURES

8.



FAI CATALOGUE OF GLIDER AEROBATIC FIGURES

8



1

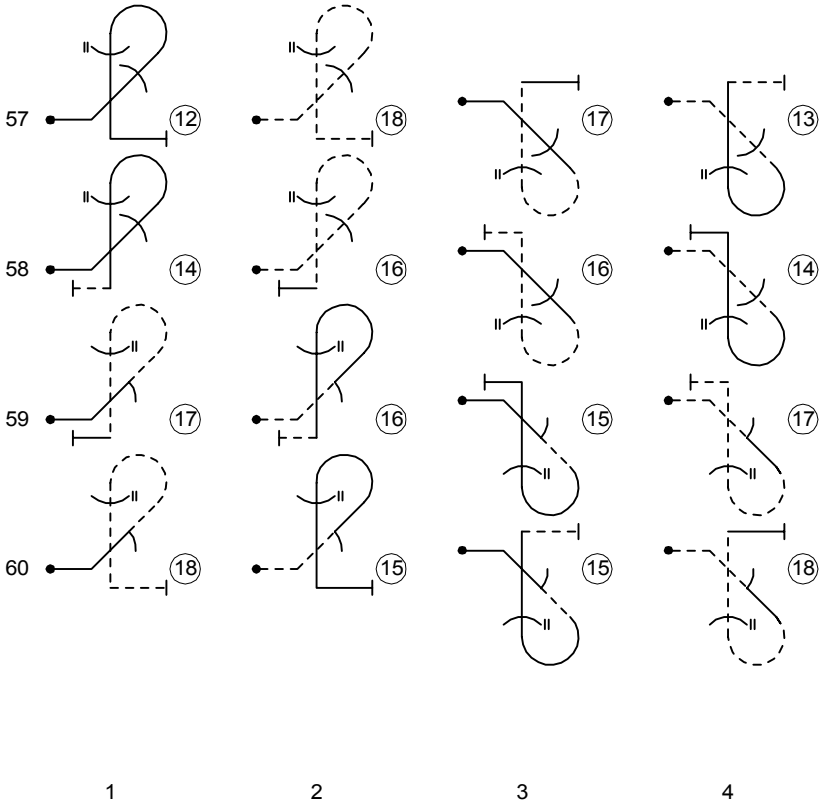
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3

4

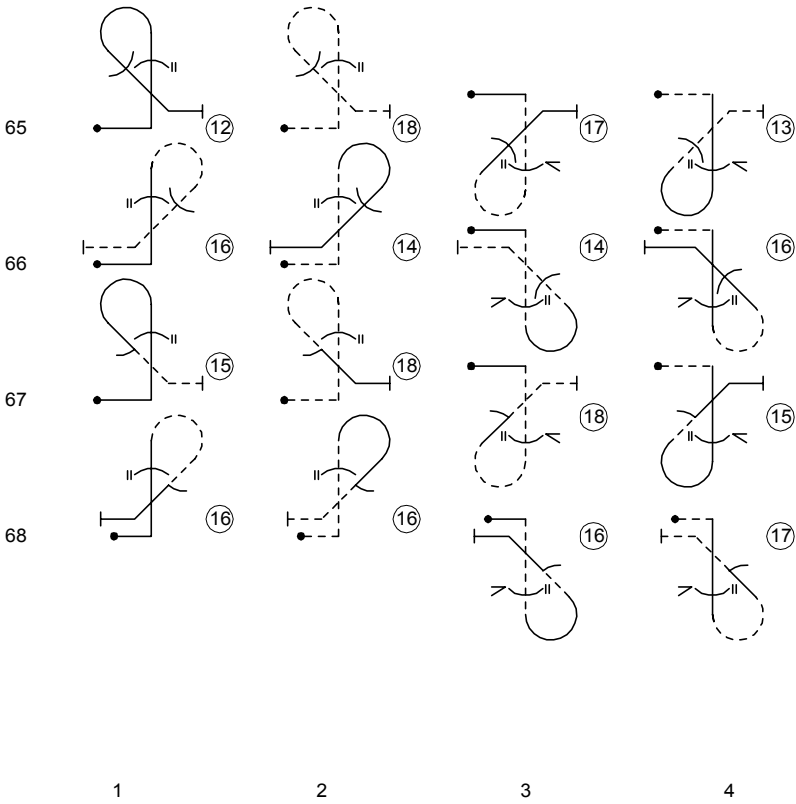
FAI CATALOGUE OF GLIDER AEROBATIC FIGURES

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FAI CATALOGUE OF GLIDER AEROBATIC FIGURES






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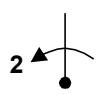
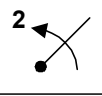
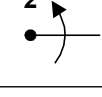
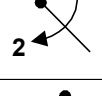
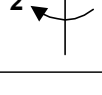
9. ROLLS AND SPINS

FAMILY 9.1 (SLOW ROLLS)

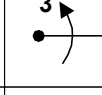
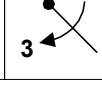
| 9.1 | | $\frac{1}{4}$ | $\frac{1}{2}$ | $\frac{3}{4}$ | 1 | $1\frac{1}{4}$ | $1\frac{1}{2}$ | $1\frac{3}{4}$ | 2 |
|------------|---|---------------|---------------|---------------|----------|----------------|----------------|----------------|----------|
| 1 |  | 9 | 12 | 15 | 18 | | | | |
| 2 |  | 6 | 9 | 12 | 15 | | 18 | | |
| 3 |  | 3 | 6 | 9 | 12 | 14 | 15 | 17 | 18 |
| 4 |  | 3 | 6 | 9 | 12 | | 15 | | |
| 5 |  | 3 | 6 | 9 | 12 | | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

FAI CATALOGUE OF GLIDER AEROBATIC FIGURES

FAMILY 9.2 (2-POINT ROLLS)






| 9.2 | | | | | 1 | 1½ | 2 | | |
|-----|---|---|---|---|----|----|----|---|---|
| 1 |  | | | | 20 | | | | |
| 2 |  | | | | 17 | | | | |
| 3 |  | | | | 14 | 18 | 23 | | |
| 4 |  | | | | 14 | 18 | | | |
| 5 |  | | | | 14 | | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

FAMILY 9.3 (3-POINT ROLLS)

| 9.3 | | | | | 1 | 1½ | 2 | | |
|-----|---|---|---|---|----|----|----|---|---|
| 3 |  | | | | 17 | | 28 | | |
| 4 |  | | | | 17 | | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |






FAI CATALOGUE OF GLIDER AEROBATIC FIGURES

FAMILY 9.4 (4-POINT ROLLS)

| 9.4 | | | $\frac{1}{2}$ | $\frac{3}{4}$ | 1 | $1\frac{1}{4}$ | $1\frac{1}{2}$ | $1\frac{3}{4}$ | 2 |
|-----|---|----------|---------------|---------------|----------|----------------|----------------|----------------|----------|
| 1 |  | | 14 | | | | | | |
| 2 |  | | 11 | | | | | | |
| 3 |  | | 8 | 12 | 17 | 20 | 23 | 26 | 28 |
| 4 |  | | 8 | 12 | 17 | | | | |
| 5 |  | | 8 | 12 | | | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |











FAI CATALOGUE OF GLIDER AEROBATIC FIGURES

9.8 FAMILY 9.8 (8-POINT ROLLS)

| 9.8 | | $\frac{1}{4}$ | $\frac{1}{2}$ | $\frac{3}{4}$ | 1 | $1\frac{1}{4}$ | $1\frac{1}{2}$ | $1\frac{3}{4}$ | 2 |
|------------|---|---------------|---------------|---------------|----------|----------------|----------------|----------------|----------|
| 1 |  | 11 | | | | | | | |
| 2 |  | 8 | 14 | | | | | | |
| 3 |  | 5 | 11 | 17 | 23 | 27 | 32 | 36 | 41 |
| 4 |  | 5 | 11 | | | | | | |
| 5 |  | 5 | 11 | | | | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |











FAI CATALOGUE OF GLIDER AEROBATIC FIGURES

FAMILY 9.9 (POSITIVE FLICK ROLLS)

| 9.9 | | | $\frac{1}{2}$ | $\frac{3}{4}$ | 1 | $1\frac{1}{4}$ | $1\frac{1}{2}$ | $1\frac{3}{4}$ | 2 |
|-----------|---|----------|---------------|---------------|----------|----------------|----------------|----------------|----------|
| 1 |  | | 18 | 20 | 22 | | | | |
| 2 |  | | 15 | 17 | 19 | | | | |
| 3 |  | | 12 | 14 | 16 | 19 | 21 | 24 | 25 |
| 4 |  | | 12 | 14 | 16 | 19 | 21 | 24 | 25 |
| 5 |  | | 12 | 14 | 16 | 19 | 21 | 24 | 25 |
| 6 |  | | 18 | 20 | 22 | | | | |
| 7 |  | | 18 | 20 | 22 | | | | |
| 8 |  | | 15 | 17 | 19 | 22 | 24 | 27 | 30 |
| 9 |  | | 15 | 17 | 19 | 22 | 24 | 27 | 30 |
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| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |






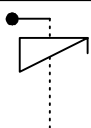
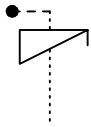
FAI CATALOGUE OF GLIDER AEROBATIC FIGURES

FAMILY 9.10 (NEGATIVE FLICK ROLLS)






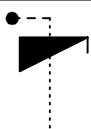
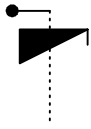
| 9.10 | | | $\frac{1}{2}$ | $\frac{3}{4}$ | 1 | $1\frac{1}{4}$ | $1\frac{1}{2}$ | $1\frac{3}{4}$ | 2 |
|------|---|----------|---------------|---------------|----------|----------------|----------------|----------------|----------|
| 1 |  | | 21 | 23 | 25 | | | | |
| 2 |  | | 18 | 20 | 22 | | | | |
| 3 |  | | 15 | 17 | 19 | 22 | 24 | 27 | 30 |
| 4 |  | | 15 | 17 | 19 | 22 | 24 | 27 | 30 |
| 5 |  | | 15 | 17 | 19 | 22 | 24 | 27 | 30 |
| 6 |  | | 21 | 23 | 25 | | | | |
| 7 |  | | 21 | 23 | 25 | | | | |
| 8 |  | | 18 | 20 | 22 | 25 | 28 | 31 | 34 |
| 9 |  | | 18 | 20 | 22 | 25 | 28 | 31 | 34 |
| 10 |  | | 15 | 17 | 19 | 22 | 24 | 27 | 30 |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

FAI CATALOGUE OF GLIDER AEROBATIC FIGURES

FAMILY 9.11 (POSITIVE SPINS)

| | | | | |  |  |  |  |  |
|----------|---|----------------------------|--|--|---|---|---|---|---|
| | | | | | 1 | 1¼ | 1½ | 1¾ | 2 |
| 1 |  | Upright Entry Line | | | 5 | 6 | 7 | 8 | 8 |
| 2 |  | Inverted Entry Line | | | 6 | 7 | 8 | 9 | 9 |
| | | | | | 4 | 5 | 6 | 7 | 8 |


FAMILY 9.12 (NEGATIVE SPINS)

| | | | | |  |  |  |  |  |
|----------|---|----------------------------|--|--|---|---|---|---|---|
| | | | | | 1 | 1¼ | 1½ | 1¾ | 2 |
| 1 |  | Inverted Entry Line | | | 7 | 8 | 9 | 10 | 10 |
| 2 |  | Upright Entry Line | | | 8 | 9 | 10 | 11 | 11 |
| | | | | | 4 | 5 | 6 | 7 | 8 |

FAI CATALOGUE OF GLIDER AEROBATIC FIGURES

FAMILY 9.13 (SUPER SLOW ROLLS)

9.13

| | | | | | | | | | |
|----------|---|----------|---------------|----------|----------|----------|----------------|----------|----------|
| | | | $\frac{1}{2}$ | | 1 | | $1\frac{1}{2}$ | | 2 |
| 3 |  | | 8 | | 16 | | 20 | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |