## AEROKLUB POLSKI



Task Catalogue<br>/FAI Sporting Code - Section 10-2014 ANNEX 4 - PART 2/<br>MICROLIGHTS

13th FAI EUROPEAN MICROLIGHT CHAMPIONSHIPS 2015
Wloclawek, Poland, August 15-23, 2015
Organized by
Aeroclub of Poland and Aeroclub of Wloclawek
On behalf of the
Fédération Aéronautique Internationale

## TASK TYPES

Tasks fall into Three Categories:

1. Flight planning, navigation estimated time and speed. No fuel limitation.
2. Fuel economy, speed range, duration. Fuel limited to maximum 15 kg for aircraft flown solo and 22 kg for aircraft flown with two people.

## 3. Precision

The proportion of each task to be used is stated in S10, 4.29.3
Any task may be set more than once, either identically or with variations.

## 1. Navigation tasks.

## a. PRECISION NAVIGATION ALONG A KNOWN TRACK

## Objective:

To fly as precisely as possible along a known track, whilst identifying ground features from photos provided, or ground markers and marking them accurately on a map. All or a defined part of the course may be scored against declared groundspeed(s). Defined legs of the course may be flown for fast or slow speed. The course may consist of straight legs, circles and/or curves.
A start order will be given. The course will start at SP and each competitor's time will commence at the given SP time. Groundspeed may be measured against elapsed time from SP time as the aircraft passes timing gates, or may be sampled between timing gates. Track accuracy will also be awarded by passing through track accuracy gates. The position of gates will not be given.
Photosheets will be given. If more than one is given then the changeover point along the course where one sheet ends and another starts will be specified. A list of possible ground markers is given in the local regulations. Competitors should identify on a map the actual position of the ground markers and the ground features in the photos. The task ends at FP. The procedure for the flight from takeoff to SP and from FP to landing will be as briefed.

## Scoring:

Each track accuracy gate passed correctly = 100 points
Timing gates passed correctly $=100$ points -5 points per second over $+/-5$ second tolerance from calculated time.

Each correctly identified ground feature or marker marked within 3mm on official scoring map $=50$ points. If greater than 3 mm but less than $5 \mathrm{~mm}=0$ points. If greater than $5 \mathrm{~mm}=-50$ points.
Fast / slow - (crews fast speed/fastest speed) $\times 100$ + (slowest speed/crews slow speed) $\times 100$
Competitor"s score $=$ Q/Qmax $\times 1000$ where:
$\mathrm{Q}=$ Competitor"s individual accumulated score
Qmax = best individual accumulated score in task/class

## Examples:

## NAVIGATION OVER A KNOWN CIRCUIT



b. PRECISION NAVIGATION WITH A PARTIALLY KNOWN TRACK

## Objective:

To fly as precisely as possible along a known track, and to then construct and fly subsequent legs of the track from information found. All, or defined part of the course may be scored against declared groundspeed(s) - or alternatively may be flown with points for fastest speed. The course may consist of straight legs, circles or curves. There may be additional photos of ground features to spot, or ground markers. Task starts at SP. First track line will be known. When competitor finds a certain marker or feature this will dictate the turnpoint for the next leg which will be a straight line to the SP of the second known track line. Situation repeats until FP.

If competitor does not find a turnpoint feature/marker, they should continue to the end of the known track line then fly directly to the SP of the next known track line (or FP). Groundspeed can be sampled anywhere on the course between unknown gates. No gate will be within 4 km of a turnpoint - but gates may be either side of a turnpoint (means groundspeed may include travel around the turnpoints). Track accuracy will also be awarded by passing through track accuracy gates. The position of gates will not be given.

Photosheets will be given. If more than one is given then the changeover point along the course will be given where one sheet ends and another starts. A list of possible ground markers is given in the local regulations Crews should identify the actual position of the ground markers, and the ground features in the photos. Task ends at FP. The procedure for the flight from takeoff to SP and from FP to landing will be as briefed.

## Scoring:

Each track accuracy gate passed correctly = 100 points.
Timing gates passed correctly $=100$ points -5 points per second over $+/-5$ second tolerance from calculated time.
Each correctly identified ground feature or marker marked within 3 mm on official scoring map $=50$ points. If greater than 3 mm but less than $5 \mathrm{~mm}=0$ points. If greater than $5 \mathrm{~mm}=-50$ points.
If flown for speed, the speed score = fastest elapsed time/competitor"s elapsed time $\times 300$

Competitor"s score $=$ Q/Qmax $\times 1000$ where:
$\mathrm{Q}=$ Competitor"s individual accumulated score
Qmax = best individual accumulated score in task/class
Examples:

- „Gearwheel" - Known track consists of two concentric circles. SP is on outer circle. Pilot starts course on time and proceeds around circle in given direction looking for photos and markers and keeping to declared groundspeed. When turnpoint marker/photo is found, a line consisting of a radial is constructed and flown to intersect with the inner circle. Photos and markers may be found on the constructed line and groundspeed continues. On reaching inner circle follow it looking for photos and markers and keeping to declared groundspeed. When
turnpoint photo/marker is found, a line consisting of a radial is constructed and flown towards the outer circle. Photos and markers may be found on the constructed line and groundspeed continues. On reaching outer circle continue and repeat process until FP.
- "Zigzag" - Known track consists of a number of separated straight lines. Pilots starts course on time and proceeds in given direction looking for photos and markers. When turnpoint photo/marker is found a straight line is constructed to the SP of the second line. Repeat process until FP. If competitor does not find a turnpoint feature/marker, they should continue to the end of the known track line then fly directly to the SP of the next known track line (or FP). Groundspeed may be flown on entire course, or if wind strength is too much comp director may define groundspeed legs and competitors declare groundspeeds for each.


Linear navigation

13th FAI EMC 2015 Włocławek, POLAND Task Catalogue


Circular navigation and diameter


Cror navion,


Drawn circular navigation


Speed spiral and two lines

Triangle and three lines


Double circular navigation

## 2. Economy - LIMITED FUEL TASKS

## a. AREA TRIANGLE \& SPEED

## Objective:

With limited fuel competitors must fly a triangular course with the objective of creating a triangle of maximum possible area. One of the first two legs, nominated by the competitor, will be a speed leg, to be flown as fast as possible.

The task will start and finish at the point SP/FP which will be a single point specified by the Competition Director. The other two turnpoints will be corners of the triangle which the competitors may choose freely unless otherwise briefed provided that this will not result in them infringing a briefed no-fly zones. These two free turnpoints will be the points where the two consecutive sides of the triangle intersect when a precision turn is flown, as illustrated below, so the new leg crosses the previous leg. The area within the triangle created by SP/FP and the two free turnpoints points will be calculated to determine the „triangle area" score. One of the first two legs, nominated by the competitor, will be scored for speed (NOT the final leg). The procedure for the flight from takeoff to SP/FP and
 from SP/FP to landing will be as briefed. If the first leg is nominated to be the speed leg, timing will start at SP/FP and finish at the intersection of the first two legs before the start of the precision turn, as illustrated below. If the second leg is nominated to be the speed leg then the timing will start at the intersection of the first and second tracks, after the precision turn, and finish at the intersection of the second and third tracks before the precision turn. Time taken will, therefore, exclude the turns themselves to avoid encouraging high speed and high bank angle turns.

## Scoring:

Competitor score $=$ SQRT(competitor area $/$ best area) $\times 700+$ (competitor speed $/$ fastest speed) x 300 .

## b. TURNPOINT HUNT - SPIDERS WEB

## Objective:

With limited fuel to visit as many given turnpoints as possible.
A turnpoint grid will be given. From SP enter the grid. This grid will have track lines drawn between turnpoints, resembling a web of radials and arcs. These track lines may only be flown in the direction marked on the official map. From the last visited turnpoint fly to FP. The procedure for the flight from takeoff to SP and from FP to landing will be as briefed.

## Scoring:

Competitor score $=($ Competitor turnpoints visited / max turnpoints visited) $\times 1000$

## c. PURE DURATION

## Objective:

With limited fuel to achieve a flight of the maximum duration.
Timing will commence at a given SP or arc, and finish at a given FP or arc. The procedure for the flight from takeoff to SP and from FP to landing will be as briefed.

## Scoring:

Duration scores will be divided into one hour steps and scores shall accrue thus:

- 1 = 5 points/min
- $2=4$ points $/ \mathrm{min}$
- 3 = 3 points/min
- 4 = 2 points/min
- 5 and above $=1$ point $/ \mathrm{min}$

Competitor score $=($ Competitor duration score $/$ max duration score achieved $) \times 1000$

## 3. Precision tasks.

## DECK TAKEOFF

## Objectives

The objective is for the aircraft to take off from a deck 100 metres long by 25 metres wide.

## Summary

This task proves the short takeoff capability that is fundamental to the performance characteristics of a microlight by demonstrating that the aircraft can take off in 100 metres in still air at sea level. Where local conditions, such as airfield altitude or slope of the runway, will make a significant difference to takeoff runs the length of the deck may be adjusted accordingly.

## Takeoff

This task will form the start of another task. The takeoff order will be specified at the main task briefing. The pilot must position his aircraft with its main wheels, or tail wheel in the case of a tail-dragger, immediately in front of the start line of the deck to the satisfaction of the marshal and must not take off until instructed to do so by the marshal. The form of signal to be used by the marshal for this purpose will be specified at the briefing.

## Procedure after Takeoff

The procedure to be flown after takeoff will be specified in the main task at the briefing.

## Scoring

There is no score for a deck takeoff but instead a $20 \%$ penalty will normally be applied to the main task if the aircraft fails to leave the ground before reaching the end of the deck. This penalty will normally apply if the aircraft:

- Commences takeoff before stationary
- Commences takeoff before instructed to do so by the marshal
- Main wheels fail to leave the ground before reaching the end of the deck.
- Touches the ground before climbing away.

DECK LANDING

## Objectives

The objective is for the aircraft to land in a deck 100 metres long by 25 metres wide.

## Summary

This task proves the short landing capability that is fundamental to the performance characteristics of a microlight by demonstrating that the aircraft can land in 100 meters in still air at sea level. Where local conditions, such as airfield altitude or slope of the runway, will make a significant difference to landing runs the length of the deck may be adjusted accordingly.

## Joining

This task will form the end of a task. Instructions for joining will be provided at the briefing or in the instructions for the prior task.

## Landing

Once the aircraft has started its final approach no deviation of over $90^{\circ}$ from the deck centerline either in the air or on the ground is permitted. The pilot may choose whatever engine setting he chooses or may switch off the engine unless otherwise instructed at the briefing. The aircraft must come to a complete standstill and must not move until instructed to do so by a marshal.

## Scoring

There is no score for a deck landing but instead a $20 \%$ penalty will normally be applied to the main task if the aircraft fails to touch down and come to a halt within the deck. This penalty will normally apply if:

- Any part of the aircraft touches the ground before the deck
- The aircraft turns by more than 90 degrees from the deck centreline between starting the landing approach and coming to a standstill
- The aircraft does not stop within the limits of the deck.
- The aircraft moves from the deck before instructed to do so by a marshal
- The aircraft is unable to taxi or take off unaided following the touchdown although failure to start the engine will not incur a penalty


## a. SPOT LANDING

## Objectives

The objective is for the aircraft to touch down within a marked deck, as close to the start of the deck as possible, coming to a halt in as short a distance as possible.

## Summary

This task simulates a landing on an aircraft carrier deck, the deck being a deck 100 metres long and 25 metres wide. The first 25-metre section of the deck is divided into five 5 metre strips which are scored from 250 to 50 points as shown. The remainder of the deck scores 25 points. In order to score the main wheels must touch down in a particular strip and the aircraft must come to a complete halt within the 100-metre deck, as close to the start of the deck as possible.


## Takeoff

The takeoff order will be specified at the task briefing. The pilot must position his aircraft to the satisfaction of the marshal and must not take off until instructed to do so by the marshal. The form of signal to be used by the marshal for this purpose will be specified at the briefing.

## Climbing Circuit

The procedure for the climbing circuit will be specified at the task briefing.

## Engine to Stop or Idle

The aircraft must approach the deck in the landing direction at a height of 1,000 ft. Before passing over the start of the deck the engine must be switched off or the throttle must be closed and the engine set to idle, as specified in the briefing. The aircraft must then fly over the full length of the deck before starting the descending circuit.

## Descending Circuit

The procedure for the descending circuit will be specified at the briefing.

## Landing

Once the aircraft has started its final approach no deviation of over $90^{\circ}$ from the deck centerline either in the air or on the ground is permitted and the engine must
remain at idle or may be switched off. The aircraft must come to a complete standstill and must not move until instructed to do so by a marshal.

## Scoring

The score will be the value of the strip in which both main wheels touch down with the ground (PS) plus the distance between the finish of the deck and the closest wheel, scored 1 point per whole metre (PD). Touching down on a dividing line scores the higher of the two strips.

The pilot will be scored zero if:

- The aircraft commences takeoff before instructed to do so by the marshal
- The engine is not stopped or the throttle is not closed before passing over the deck
- The aircraft does not pass over the entire length of the deck before turning to descend
- The engine does not remain at idle once final approach has started if engine idle permitted
- The aircraft turns by more than 90 degrees from the deck centreline between starting the landing approach and coming to a standstill
- Any part of the aircraft touches the ground before the deck.
- The aircraft does not stop within the limits of the deck.
- The aircraft moves from the deck before instructed to do so by a marshal
- The aircraft is unable to taxi or take off unaided following the touchdown although failure to start the engine will not incur a penalty

Thus the score calculation will be (PS + PD) x 250/350 with a maximum score of 250

## b. SPOT LANDING - TIMED

## Objectives

The objective is for the aircraft to touch down within a marked deck at a specific time, as close to the start of the deck as possible, coming to a halt in as short a distance as possible.

## Summary

This task simulates a landing on an aircraft carrier deck, the deck being a deck 100 metres long and 25 metres wide. The first 25-metre section of the deck is divided into five 5 metre strips which are scored from 250 to 50 points as shown. The remainder of the deck scores 25 points. In order to score the main wheels must touch down in a particular strip and the aircraft must come to a complete halt within the 100-metre deck, as close to the start of the deck as possible. Additional points may be scored if
the scoring touchdown takes place at or near an exact full minute as indicated by the competition clock, eg 11:31:00 hrs is a full minute, 11:31 17 hrs is not.


## Takeoff

The takeoff order will be specified at the task briefing. The pilot must position his aircraft to the satisfaction of the marshal and must not take off until instructed to do so by the marshal. The form of signal to be used by the marshal for this purpose will be specified at the briefing.

## Climbing Circuit

The procedure for the climbing circuit will be specified at the task briefing.

## Engine to Stop or Idle

The aircraft must approach the deck in the landing direction at a height of 1,000 ft.
Before passing over the start of the deck the engine must be switched off or the throttle must be closed and the engine set to idle, as specified in the briefing. The aircraft must then fly over the full length of the deck before starting the descending circuit.

## Descending Circuit

The procedure for the descending circuit will be specified at the briefing.

## Landing

Once the aircraft has started its final approach no deviation of over $90^{\circ}$ from the deck centreline either in the air or on the ground is permitted. The aircraft must come to a complete standstill and must not move until instructed to do so by a marshal.

## Scoring

The score will be the value of the strip in which both main wheels touch down (PS) plus the distance between the finish of the deck and the closest wheel, scored 1 point
per whole metre (PD). Touching down on a dividing line scores the higher of the two strips. If the aircraft touches down on a full minute, the time being taken from the official clock, $\pm 5$ seconds a further 100 points is scored (PT). This score will be reduced by 5 points for every second outside $\pm 5$ seconds from a full minute.
The pilot will be scored zero if:

- The aircraft commences takeoff before instructed to do so by the marshal
- The engine is not stopped or the throttle is not closed before passing over the deck
- The aircraft does not pass over the entire length of the deck before turning to descend
- The engine does not remain at idle once final approach has started if engine idle permitted
- Any part of the aircraft touches the ground before the deck.
- The aircraft turns by more than 90 degrees from the deck centreline between starting the landing approach and coming to a standstill
- The aircraft does not stop within the limits of the deck.
- The aircraft moves from the deck before instructed to do so by a marshal
- The aircraft is unable to taxi or take off unaided following the touchdown although failure to start the engine will not incur a penalty
Thus the score calculation will be (PS+PD+PT) $\times 250 / 450$ with a maximum score of 250.


## c. POWERED PRECISION LANDING

## Objectives

The objective is for the aircraft to touch down within a marked deck, as close to the start of the deck as possible, coming to a halt in as short a distance as possible.

## Summary

This task simulates a landing on an aircraft carrier deck, the deck being a deck 100 metres long and 25 metres wide. The first 25-metre section of the deck is divided into five 5 metre strips which are scored from 250 to 50 points as shown. The remainder of the deck scores 25 points. In order to score the main wheels must touch down in a particular strip and the aircraft must come to a complete halt within the 100-metre deck, as close to the start of the deck as possible.


## Joining

This task will follow the completion of a prior task in which no landing is required. Instructions for joining will be provided at the briefing or in the instructions for the prior task.

## Landing

Once the aircraft has started its final approach no deviation of over $90^{\circ}$ from the deck centreline either in the air or on the ground is permitted. The pilot may choose whatever engine setting he chooses or may switch off the engine unless otherwise instructed at the briefing. The aircraft must come to a complete standstill and must not move until instructed to do so by a marshal.

## Scoring

The score will be the value of the strip in which both main wheels touch down (PS) plus the distance between the finish of the deck and the closest wheel, scored 1 point per whole metre (PD). Touching down on a dividing line scores the higher of the two strips.
The pilot will be scored zero if:

- Any part of the aircraft touches the ground before the deck
- The aircraft turns by more than 90 degrees from the deck centreline between starting the landing approach and coming to a standstill
- The aircraft does not stop within the limits of the deck.
- The aircraft moves from the deck before instructed to do so by a marshal
- The aircraft is unable to taxi or take off unaided following the touchdown although
failure to start the engine will not incur a penalty
Thus the score calculation will be (PS + PD) x $250 / 350$ with a maximum score of 250


## d. POWERED PRECISION LANDING - TIMED

## Objectives

The objective is for the aircraft to touch down within a marked deck at a specific time, as close to the start of the deck as possible, coming to a halt in as short a distance as possible.

## Summary

This task simulates a landing on an aircraft carrier deck, the deck being a deck 100 metres long and 25 metres wide. The first 25-metre section of the deck is divided into five 5 metre strips which are scored from 250 to 50 points as shown. The remainder of the deck scores 25 points. In order to score the main wheels must touch down in a particular strip and the aircraft must come to a complete halt within the 100-metre deck, as close to the start of the deck as possible. . Additional points may be scored if the scoring touchdown takes place at or near an exact full minute as indicated by the competition clock, eg 11:31:00 hrs is a full minute, 11:31 17 hrs is not.


## Joining

This task will follow the completion of a prior task in which no landing is required. Instructions for joining will be provided at the briefing or in the instructions for the prior task.

## Landing

Once the aircraft has started its final approach no deviation of over $90^{\circ}$ from the deck centreline either in the air or on the ground is permitted. The pilot may choose whatever engine setting he chooses or may switch off the engine unless otherwise instructed at the briefing. The aircraft must come to a complete standstill and must not move until instructed to do so by a marshal.

## Scoring

The score will be the value of the strip in which both main wheels touch down with the ground (PS) plus the distance between the finish of the deck and the closest wheel, scored 1 point per whole metre (PD). Touching down on a dividing line scores the higher of the two strips. If the aircraft touches down on a full minute, the time being taken from the official clock, $\pm 5$ seconds a further 100 points is scored (PT). This score will be reduced by 5 points for every second outside $\pm 5$ seconds from a full minute.

The pilot will be scored zero if:

- Any part of the aircraft touches the ground before the deck
- The aircraft turns by more than 90 degrees from the deck centreline between starting the landing approach and coming to a standstill
- The aircraft does not stop within the limits of the deck.
- The aircraft moves from the deck before instructed to do so by a marshal
- The aircraft is unable to taxi or take off unaided following the touchdown although failure to start the engine will not incur a penalty
Thus the score calculation will be (PS+PD+PT) $\times 250 / 450$ with a maximum score of 250


## e. PRECISION TOUCHDOWN - TIMED

## Objectives

The objective is for the aircraft to touch down within a marked deck at a specific time, as close to the start of the deck as possible.

## Summary

The deck is 6 metres long, 10 metres wide and is marked in four 1.5 metre strips which are scored from 200 to 50 points as shown. In order to score the main wheels must touch down in a particular strip as close to the start of the deck as possible. The lines will be defined by raked wet sand to ensure accurate scoring. Additional points may be scored if the scoring touchdown takes place at or near an exact full minute as indicated by the competition clock, eg 11:31:00 hrs is a full minute, 11:31 17 hrs is not.


## Joining

This task will form part of another task. Instructions for joining will be provided at the briefing or in the instructions for the main task.

## Landing

Once the aircraft has started its final approach no deviation of over $90^{\circ}$ from the deck centreline is permitted. The pilot may choose whatever throttle setting he chooses or may switch off the engine unless otherwise instructed at the briefing. Once the touchdown is completed the pilot may immediately take off unless otherwise instructed at the task briefing.

## Scoring

The score will be the value of the strip in which both main wheels touch down (PS). Touching down on a dividing line scores the higher of the two strips. If the aircraft touches down on a full minute, the time being taken from the official clock, $\pm 5$ seconds a further 50 points is scored (PT). This score will be reduced by 5 points for every second outside $\pm 5$ seconds from a full minute. The pilot will be scored zero if:

- Any part of the aircraft touches the ground before the deck
- The aircraft fails to touchdown within the limits of the deck
- The aircraft turns by more than 90 degrees from the deck centreline between starting the landing approach and coming to a standstill
- The aircraft is unable to taxi or take off unaided following the touchdown although failure to start the engine will not incur a penalty
Thus the score calculation will be (PS + PT) with a maximum score of 250


## f. SHORT TAKEOFF OVER AN OBSTACLE <br> Objectives

The objective is for the aircraft to take off over and clear an obstacle, starting the takeoff run as close to the obstacle as possible.

## Summary

This task simulates a short field takeoff over a hedge, the hedge being represented by a tape stretched across the runway 1 metre above the ground. The pilot may position his aircraft on the runway as close as he wishes to the tape. This distance will be measured from the centre of the foremost wheel and rounded up to the nearest 0.1 metre. The aircraft must the take off over the tape without breaking it.


## Takeoff

The takeoff order will be specified at the task briefing. The pilot may position his aircraft as close to the tape as he wishes and must not take off until instructed to do so by the marshal. The form of signal to be
used by the marshal for this purpose will be specified at the briefing.

## Procedure after Takeoff

The procedure to be flown after takeoff will be specified at the briefing.

## Scoring

The competitor in each class that starts the takeoff run closest to the tape (DMIN) and clears the tape without breaking it will score 250 points. Other competitors will be awarded scores based on their distance from the tape at the start of their takeoff run (DP) relative to DMIN. The competitor will be scored zero if:

- The aircraft commences takeoff before stationary
- The aircraft commences takeoff before instructed to do so by the marshal
- The aircraft fails to fly over the tape
- Any part of the aircraft breaks the tape

Thus the score calculation will be ( $250 \times$ DMIN / DP) with a maximum score of 250
Takeoff Direction25 metresScoring distanceTape1m high

## g. SHORT LANDING OVER AN OBSTACLE Objectives

The objective is for the aircraft to fly over and clear an obstacle, to land and come to a standstill as close to the obstacle as possible.

## Summary

This task simulates a short field landing over a hedge, the hedge being represented by a tape stretched across the runway 1 metre above the ground. The pilot must land over the tape and stop. This distance will be measured from the centre of the foremost wheel and rounded up to the nearest 0.1 metre.

## Joining

This task may form part of another task. Instructions for joining will be provided at the briefing or in the instructions for the main task.

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## Landing

Once the aircraft has started its final approach no deviation of over

$90^{\circ}$ from the centreline of the
runway is permitted. The pilot may choose whatever engine setting he chooses or may switch off the engine unless otherwise instructed at the briefing. The aircraft must come to a complete standstill and must not move until instructed to do so by a marshal.

## Scoring

The competitor in each class that comes to a standstill closest to the tape (DMIN) having cleared the tape without breaking it will score 250 points. Other competitors will be awarded scores based on their distance from the tape when they stop (DP) relative to DMIN. The competitor will be scored zero if:

- The aircraft fails to fly over the tape
- Any part of the aircraft touches the ground before the tape
- Any part of the aircraft breaks the tape
- The aircraft turns by more than 90 degrees from the runway centreline between starting the landing approach and coming to a standstill
- The aircraft is unable to taxi or take off unaided following the touchdown although failure to start the engine will not incur a penalty
Thus the score calculation will be ( $250 \times$ DMIN / DP) with a maximum score of 250


## Key to symbols used in the task catalogue:

| $/$ | Line drawn after takeoff | FP $\triangle$ | Finish point with time gate |
| :---: | :---: | :---: | :---: |
|  | Free flight | $\Delta \Pi$ | Marker identity given before takeoff |
| - | Direction of travel | ( $\square$ | Home airfield |
| $\square$ | Marker selected from list of Marker Symbols | 0 | Outlanding airstrSP |
| 0 | Ground feature to be identified from photograph | $10$ | Direction of landing |
| 0 | Turnpoint | $\leq 4$ | Left hand circuit |
| (0) | Turnpoint to be identified from photograph |  | Right hand circuit |
| صח | Ground feature to be photographed or controlled by FR evidence. | $Q_{600}$ | Circuit height above ground in feet |
|  |  | $\square$ | Windsock |
| $\triangle$ | Timing point or gate |  |  |
|  |  | T | Landing direction indicator |
| SP $\square$ | Initial or Start point |  |  |
|  |  | 0 0n0 | Road or track |
| SP $\triangle$ | Initial or Start point with time gate |  |  |

