

17th WORLD MICROLIGHT CHAMPIONSHIPS

TASK NAVIGATION 3 & 4, PRECISION 4

BRIEFING

27.7.2022 17:00 LT



Hosín Airfield, LKHS

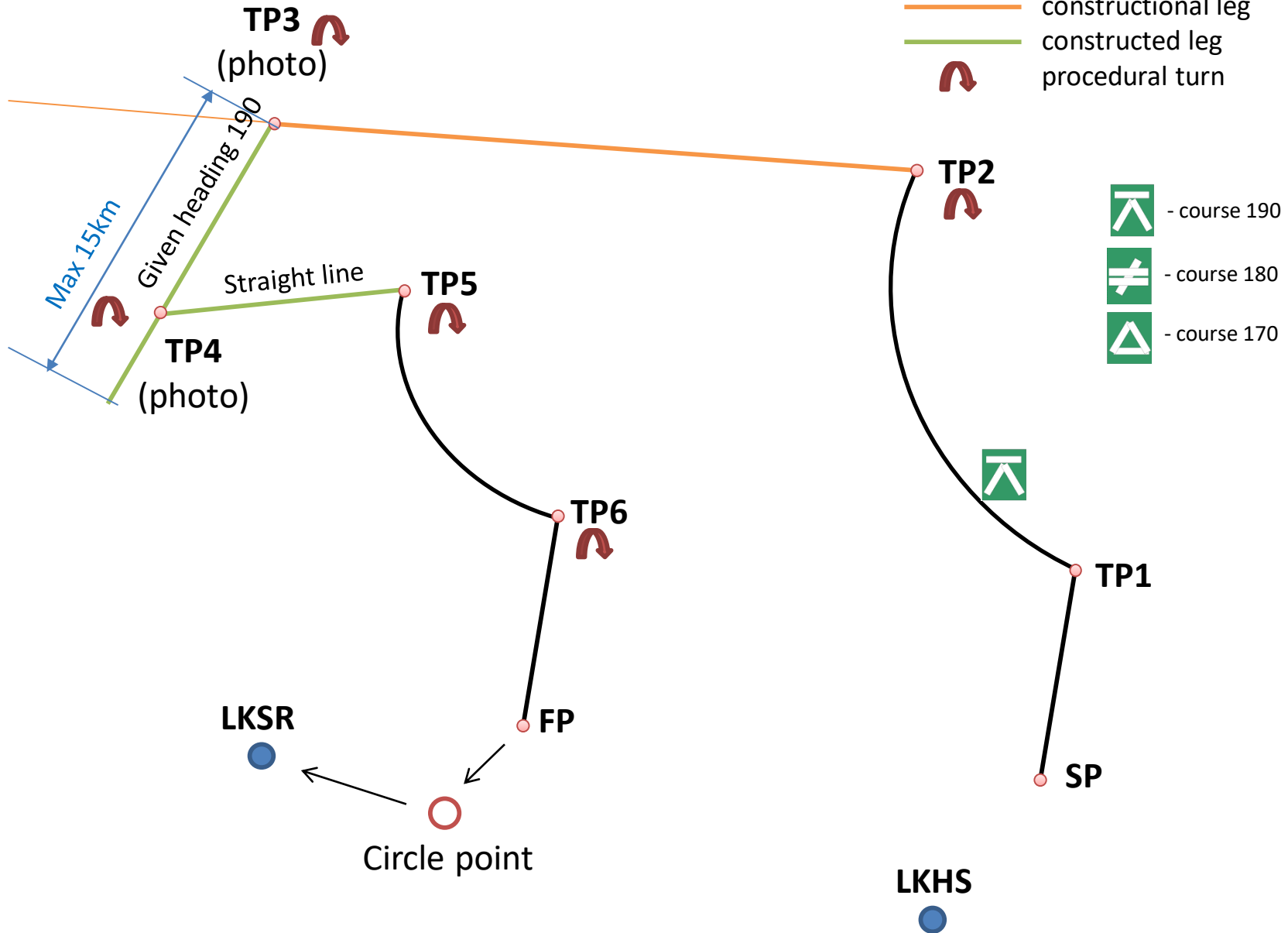
THURSDAY, 28th

NAVIGATION WITH PARTIALLY KNOWN TRACK No. 1

TASK DESCRIPTION:

- Follow a series of partially known legs, finding markers and identifying ground features from photographs, and locating their positions on a map (**including the marker shape and photo number**) and maintaining declared ground speed, which is measured by known and unknown time gates. Discover unknown legs during the flight and follow them.
- The combination of a photo and a marker will indicate a turnpoint and the direction of a leg to another (known) point.
- It may be required to distinguish between on-track and off-track markers and ground features. There will be track gates to evaluate navigation precision. These can be combined with timing gates to evaluate time precision. After the first unknown turnpoint, the rest of the time measurement is by interval ground speed measurement (GS measured between 2 consecutive gates)

Approximate task shape



TASK SPECIFICATION:

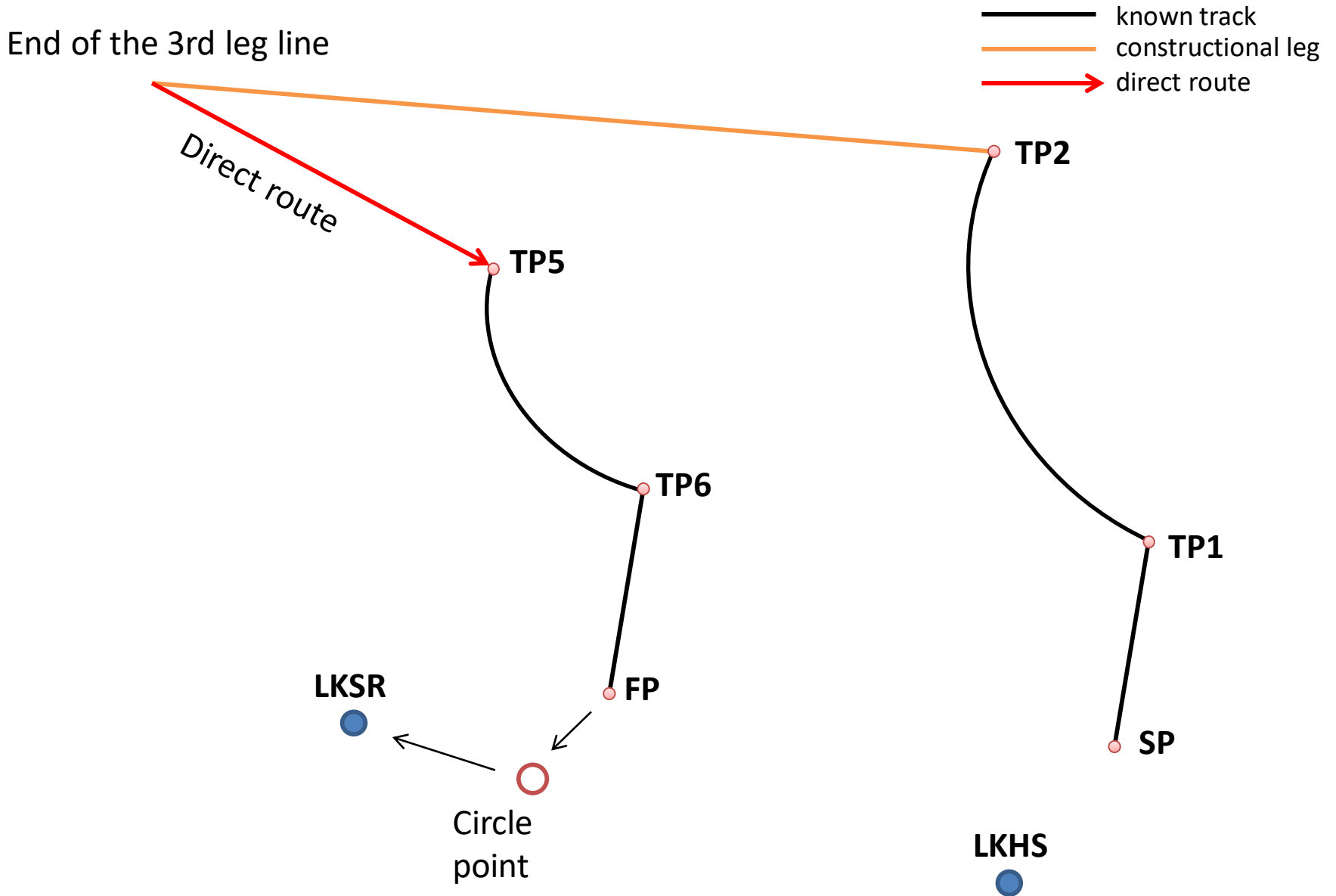
- The track is fully known until TP2.
- Between SP and TP2, find a marker which indicates the direction from TP3 to TP4 (true course).
- TP3 is not marked in the map, this is indicated by a turning photo.
- TP4 is not marked in the map, this is indicated by a turning photo on the constructed leg.
- From TP4, construct and follow a straight line to TP5 (known, in the map).
- From TP5 to FP, follow a known line in the map.
- If you miss either a marker (between SP and TP2) or a TP3 photo, fly directly to TP5 at the end of the leg.
- If you miss a TP4 photo, fly the given true course (heading from TP3) for 15 km at maximum, then fly directly to TP5.
- TP2, TP3, TP4, TP5 and TP6 – add time for procedural turns (+1 minute!). (The procedural turn itself is not mandatory).
- Identify photos and markers (including shape/number) in the map.

- After passing FP, fly to the circle point and execute a circle task. An extra map will be given to competitors to re-mark the photos and markers on the ground after the task in quarantine.

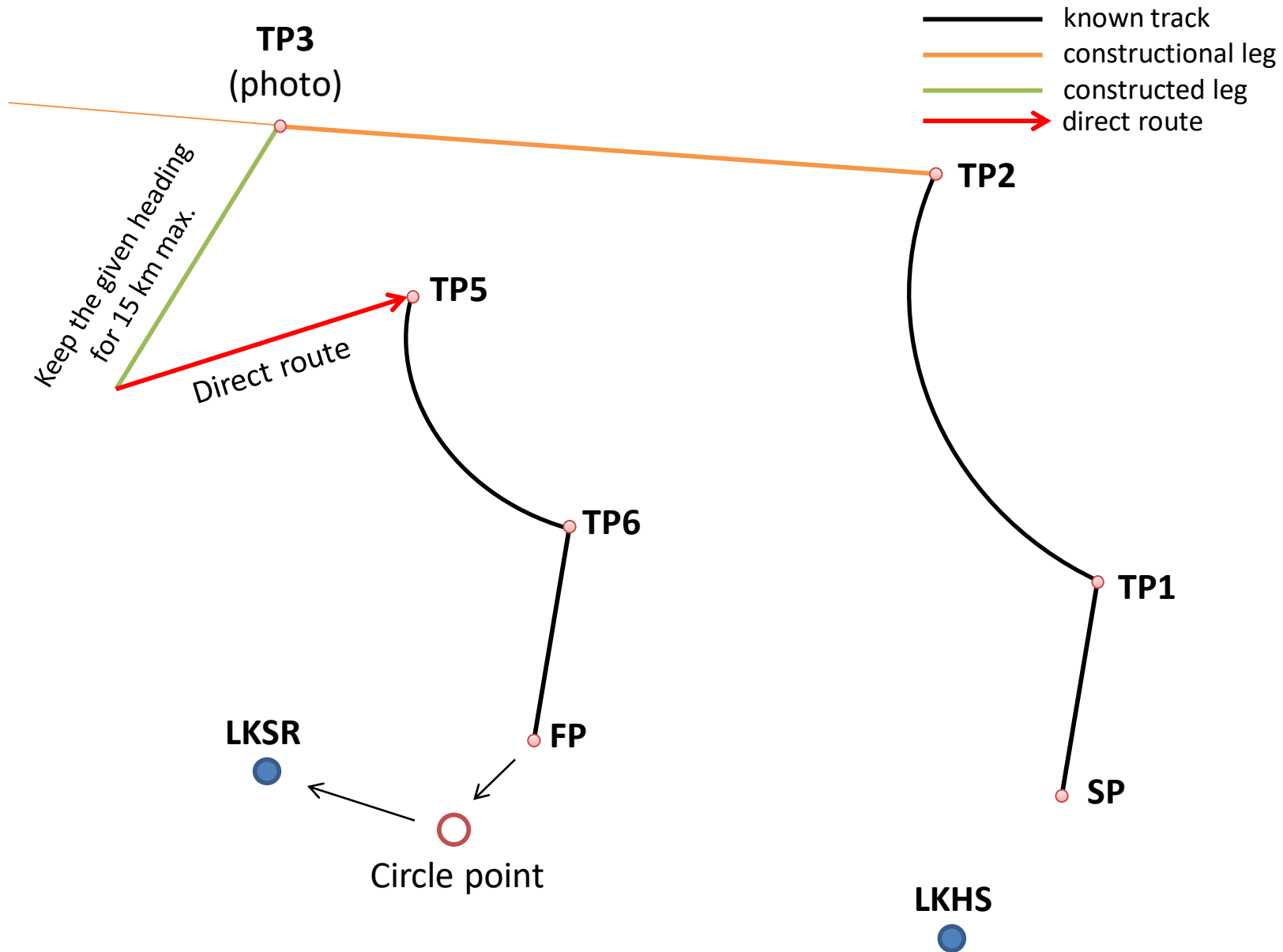
- Backtracking is not evaluated between TP3 and TP5.
- After TP3, the groundspeed is measured by “interval”
- The crew shall be ready for scoring 25 minutes after landing. (-20% penalty)
- Approximate task length is 120km
- The time limit for the entire task is 160km/GS + time to SP (6 minutes). Landing after time limit is 100% penalty.
- Time to start point
– 6mins AL,WL,GL

- **STAY BELOW 1000ft AGL!**

If a marker or a TP3 photo is **not found**, fly directly to TP5:



If a TP4 photo is **not found**, fly directly to TP5 (after 15 km):



Circle point

- The objective is to fly a precise 360 degree circle around a marker in a given minimum height of 700ft AGL in a range of radius of minimum 200 meters to a maximum of 750 meters.
- The competitor may choose the radius within the given limits. To fly into the circle the competitor has to overfly the start point (SP) as well as the center marker (CM) in a straight line initially.
- After passing the center marker the competitor has to bank into the left using a desired radius.
- The first 180 degrees are for orientation purposes and not scored, even if the limits are exceeded. After 180 degrees, passing the given entry line (X) the scoring starts for the next 360 degrees. The scoring ends by crossing the entry line (X). The competitor has to leave the circle heading to the next waypoint (WP).
- The SP for this task will be marked in the map of Task N3

Circle point

Scoring

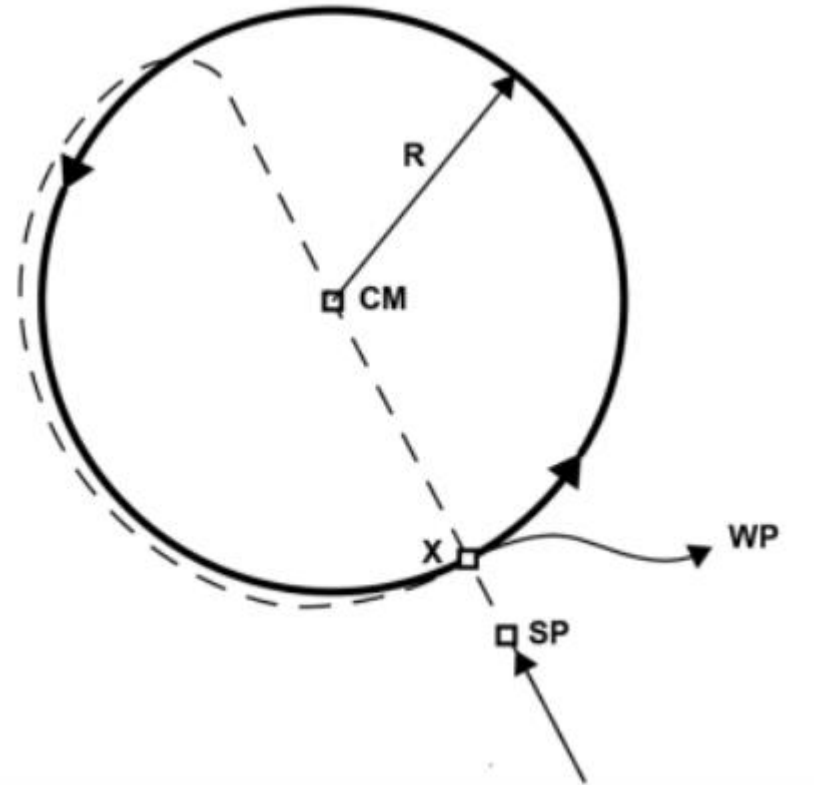
The maximum score is given if the circle is flown exact circular, within the given limits.

$$P = (R_{\min}/R_{\max} - 0,5) * 400$$

$$P_{\max} = 200$$

The task will be scored with 0 points if:

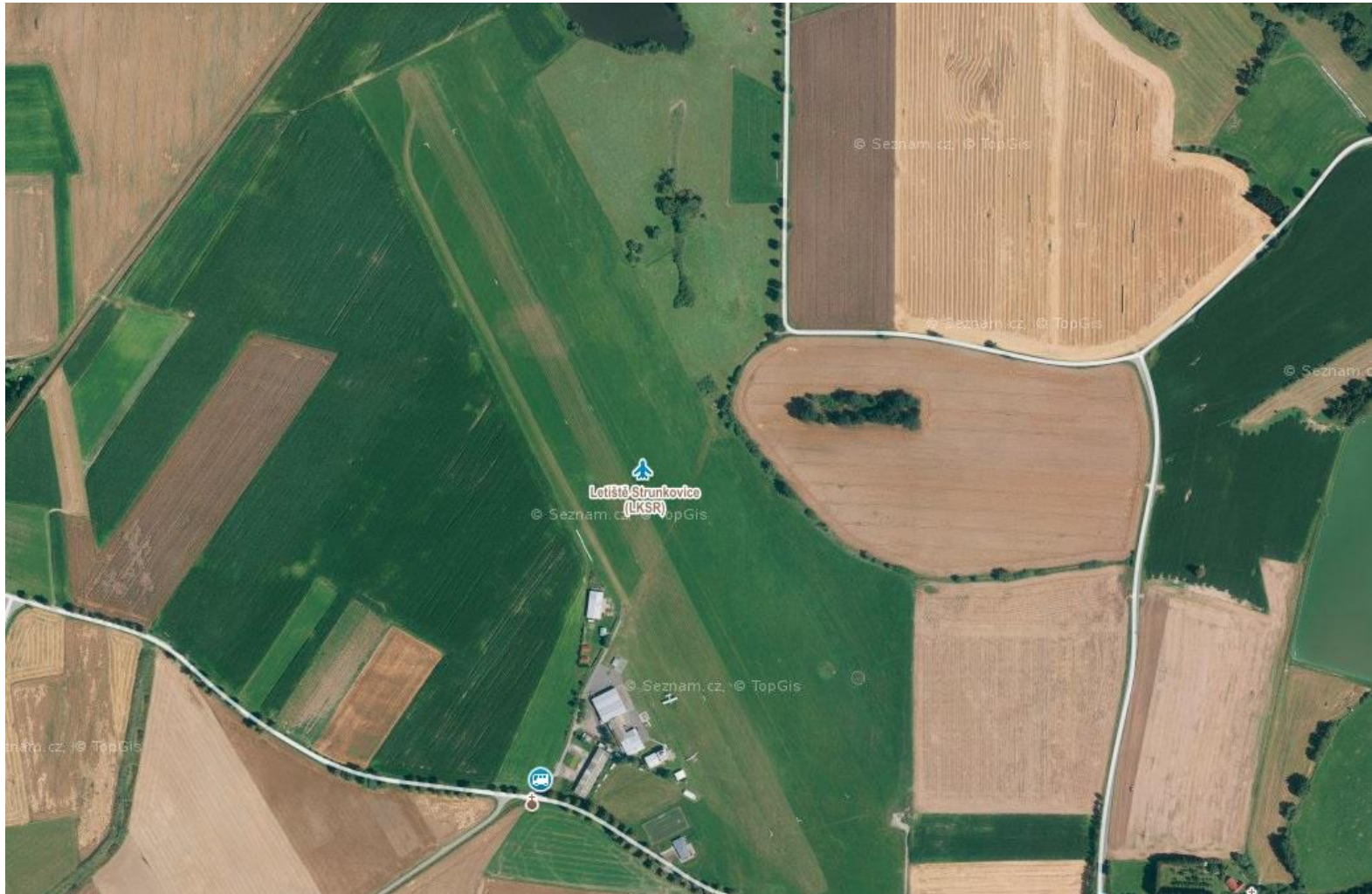
- Ratio of R_{\min} to R_{\max} is 0,5 or smaller
- The CM is located outside of the flown circle
- SP and CM are not flown over within the briefed limits
- The aircraft leaves the limits of the radius
- The aircraft leaves the given altitude limits



Arrival in Strunkovice (LKSR)

- Fly to the airfield, looking out for traffic.
- Use the eastern circuit and execute a free landing on the runway. Taxi to the quarantine area after being instructed to do so by a marshal.
- Finish your maps and proceed to the scoring.
- Expect RWY in use 15
- In that case enter circuit downwind

Strunkovice Airfield Map



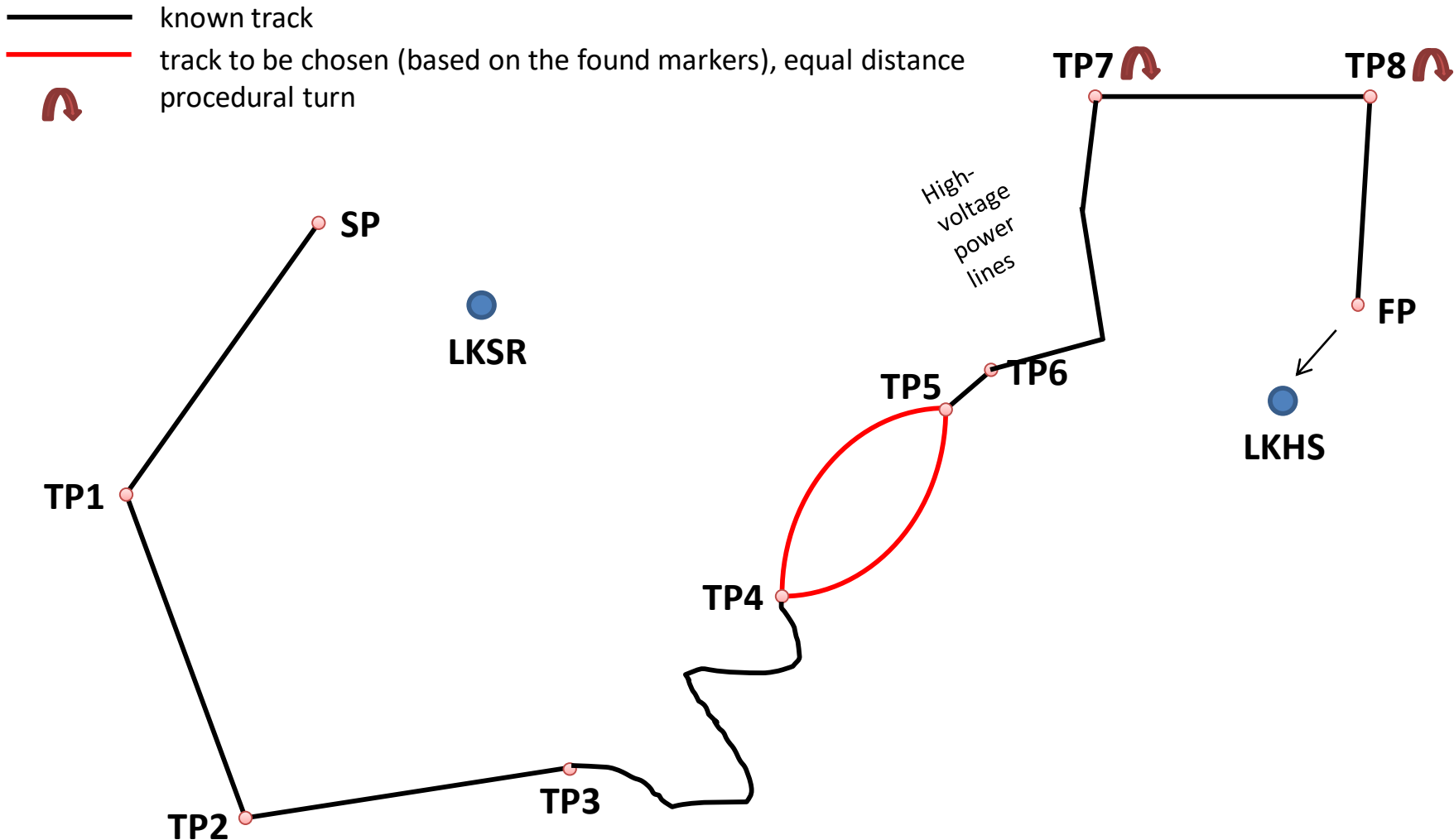
THURSDAY, 28th

NAVIGATION WITH PARTIALLY KNOWN TRACK No. 2

TASK DESCRIPTION:

- Follow a series of partially known legs, finding markers and identifying ground features from photographs, and locating their positions on a map (**including the marker shape and photo number**) and maintaining declared ground speed, which is measured by known and unknown time gates. Discover unknown legs during the flight and follow them.
- The combination of markers will indicate a track (one of the two options) to another (known) point.
- It may be required to distinguish between on-track and off-track markers and ground features. There will be track gates to evaluate navigation precision. These can be combined with timing gates to evaluate time precision.

Approximate task shape



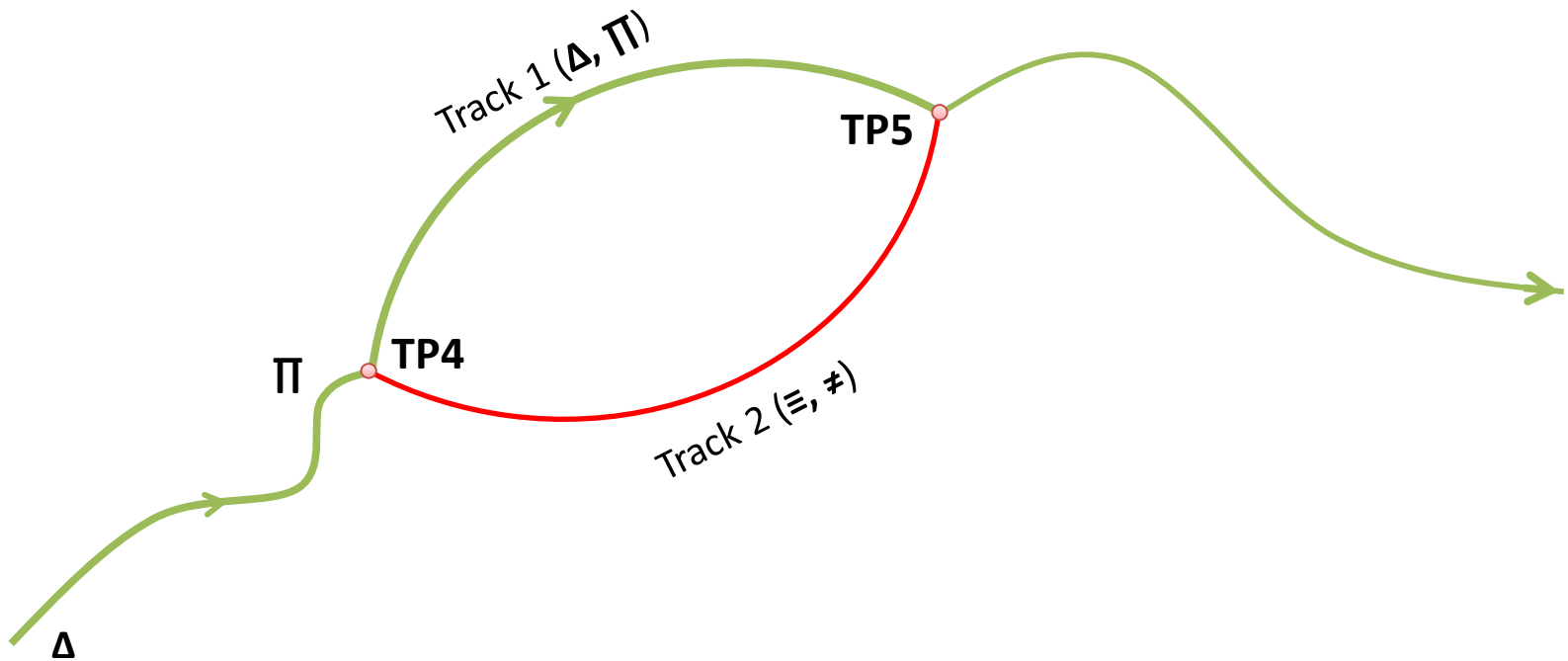
TASK SPECIFICATION:

- The turnpoints are fully known.
- The track is fully known until TP4.
- Between SP and TP4, find a combination of markers which will indicate the track to TP5 (two options, curves).
- From TP3 to TP4, follow a road.
- From TP6 to TP7, follow high-voltage power lines.
- If you miss a marker, you are free to choose your track between TP4 and TP5.
- TP7 and TP8 – add time for procedural turns (+1 minute!). (The procedural turn itself is not mandatory).
- Identify photos and markers (including shape/number) in the map.
- An extra map will be given to competitors to re-mark the photos and markers on the ground after the task in quarantine.
- The crew shall be ready for scoring 25 minutes after landing. (-20% penalty)
- Approximate task length is 110km
- The time limit for the entire task is 140km/GS + time to SP (7 minutes).
Landing after time limit is 100% penalty.
- Time to start point
– 7mins AL,WL,GL

- Fly along the known track and find markers - locate their position on a map.
- A combination of **two markers** indicates the track to be chosen, as in the example below:

$\Delta \Pi - 1$

$\Xi \neq - 2$



Arrival in Hosín Airfield

- Fly above the airfield, looking out for traffic.
- Use the southern circuit and execute a free landing on the runway. Taxi to the quarantine area .
- Finish your maps and proceed to the scoring.

Scoring

Description	Point value
SP, FP, all TP	50
Track gate	100
Photo, groundmarker (in 2 mm tolerance)	100
Photo, groundmarker (tolerance: > 2 mm, < 5 mm)	0
Photo, groundmarker (out of 5 mm tolerance)	-100
Time gate (5 sec tolerance)	100
Each second outside of 5 sec tolerance	-3
Ground speed section (3km/h tolerance)	150
Each km/h outside 3km/h tolerance	-15

Penalties

Description	Point value
Late quarantine	-20%
Late take-off	-20%
Backtracking	-100%
Flying into prohibited area (marked in the task map)	-100%
Outlanding	-100%
Quarantine breach	-100%
Landing after time limit	-100%