

# National Contest in Poland

INOWROCLAW, AUGUST 5th to 15th, 1937



A Polish sailplane of the latest type, "PWS-101," launched at the international competitions last July.

[Photo courtesy Aero Club of Germany.]

[The following extracts from a report on the Polish National Soaring Competitions have been translated from the French version of the report sent by Lt.-Col. A. Chramiec, Secretary-General of the Aeroklub Rzeczypospolitej Polskiej, to Professor D. Brunt, who has kindly forwarded it to THE SAILPLANE.]

THE Fifth National Sailplane Contest had for its aim the investigation of the possibilities of flat country for soaring flight, as well as the special conditions which the north-west part of Poland presented for this sport.

The results obtained, shown in the daily bulletins, demonstrated that the flat regions of Pomerania and of Posnan lend themselves admirably for this purpose, and that the work of the pilots is much easier than over the mountainous country at the foot of the Carpathians.

The rules of the contest attached most importance to distance flights, and put a premium on distance flights with the landing place announced in advance. The choice of landing place was left to the pilot, with the condition, however, that this must be either an aerodrome or a landing field registered by the State.

By allotting a high number of points for flights to an announced goal the competitors were encouraged to use their best intelligence. That this aim was realised is proved not only by the great number of successful flights, but also by all those where the pilot, though not reaching his goal, nevertheless landed on the correct course.

If one considers that the greater part of the competitors were young glider pilots with but little

experience, the results obtained appear to us very satisfactory. The results given in the accompanying tables are the best illustration of the work done during the contest.

## Rules.

**MINIMUM PERFORMANCE.**—Points are awarded for distance flights exceeding 50 km. and altitude flights exceeding 1,000 m. Fractions of points are ignored, the nearest whole number being taken.

**GOAL FLIGHTS.**—For flights to a previously announced goal, 30% is added to the distance flown in kilometres, and points are awarded on this increased figure.

**GROUP FLIGHTS.**—Pilots desiring to take part in a group flight must announce their intention before starting. A group can consist of two or three sailplanes. A group flight is considered to have been effected if all the sailplanes land in such a way that the distance separating each sailplane from the other two does not exceed 2.5 metres. [This is too good to be true, and must be a misprint for kilometres.—Ed.]

Additional points are awarded for group flights: for a group of three sailplanes, 25% addition to the distance flown is attributed to each pilot; for a group of two, 10% addition. If only two pilots out of a group of three fulfil the conditions, 10% addition is attributed to each successful pilot. The flight of the unsuccessful one, or of each of a group of two which fails to fulfil the conditions, is reckoned as a solo flight.

**ALTITUDE FLIGHTS.**—In awarding points for altitude, the altitude attained by the sailplane in independent flight is considered; if it loses height after casting off



from an aero-tow, and subsequently climbs, the altitude is reckoned from the lowest point from which the climb is made. Altitudes attained during distance flights are taken into consideration and points are awarded. A pilot taking part in an altitude contest is not held to be making a distance flight.

**COMPETITORS AND ORGANISATIONS.**—After the contest the Sporting Commission classifies the competitors according to the number of points obtained, separately for the distance and altitude contests.

### Prizes.

Challenge Prize of the Minister of Communications for the sporting organisation whose pilot made the best distance flight: Aeroklub Lwowski; gained by the pilot, Adam Dziurzynski, who flew 313 km. (194½ miles) from Inowroclaw to Ozarowo on August 9th.

Challenge Prize of the League of Aerial Defence for the sporting organisation whose pilot made the best altitude flight (minimum 1,000 m.): Aeroklub Pomorski; gained by Eugnius Makowski, who climbed 2,180 m. (7,152 ft.) on August 7th.

Challenge Prize of the Polish Aeronautical Industries' Union for the constructor of the sailplane which achieved the greatest distance: to Ing. Wacław Czerwinski, constructor of sailplane P.W.S.-101.

Individual prizes for points earned on distance flights: Tadeusz Gora, 493 points; and seven other pilots with totals ranging from 472 to 296 points.

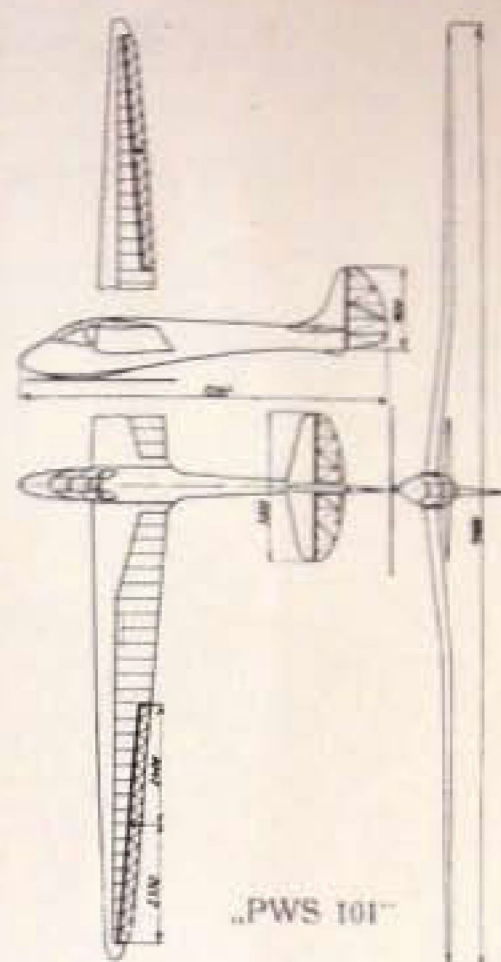
Individual Prizes for the best altitude flights according to points earned: E. Makowski, 40 points; and seven others with totals from 35 to 13 points.

Prize of Honour for the academic sporting organisation whose member, being a student in the Faculty of Aeronautics at one of the national Polytechnic Schools, gains the greatest number of points: Aeronautical Section of the Warsaw Polytechnic School, whose member, M. Urban, gained 464 points.

### Aero-Towed Starts.

All launches during the contest were made from an aero-tow; the casting-off heights on the different days were:—

August 5th, 6th, 7th, 10th, 12th and 15th.—500 m. (1,640 ft.).



(From "Flugpost.")

August 8th.—700 m. (2,300 ft.) before 2 p.m.; 800 m. (2,625 ft.) after 2 p.m.

August 9th and 11th.—600 m. (1,970 ft.).

August 13th.—950 m. (3,120 ft.) before 11 a.m.; 800 m. after 11 a.m.

### Machines and Competitors.

The number of machines of each type entered was 2 PWS-101; 6 ORLIK; 3 CW-5; 6 SG-3BIS; 1 SG-3; 1 SG-7; 2 WOS; 8 KOMAR; 1 MEWA. Total, 30 sailplanes.

Of the 30 competitors, 12 were from Aero Clubs in Warsaw, Poznan, Lwow, Cracow and the Pomorski Club, and the remainder from four different gliding schools. (Two of the competitors had also taken part in the international meeting in July on the Wasserkuppe: Zbigniew Zabski and Capt. Stanisław Brzezina. Two were women: Wanda Modlibowska and Maria Szczecinska.)

### Summary of Contest.

Date. (Aug.)	Launches.	Total Flying Time.		Total Distance. (km.)	Distance flights.	Goal flights.	Group flights.	Group- goal flights.	Flights of distance, exceeding in km.			
		h.	min.						50	100	200	300
5	36	70	56	2.400	19	10	—	2	—	17	—	—
6	15	11	51	177	5	—	—	—	1	—	—	—
7	37	88	08	2.420	28	3	—	2	11	4	5	—
8	24	62	19	1.926	18	—	—	—	6	3	3	—
9	18	84	32	3.495	17	3	—	—	1	5	10	1
10	12	37	33	1.634	10	1	—	—	2	3	4	—
11	21	52	59	1.989	16	3	3	—	1	12	1	—
12	30	65	02	2.675	4	—	1	—	2	5	7	—
13	18	35	11	724	13	1	1	—	8	2	—	—
14	—	—	—	—	—	—	—	—	—	—	—	—
15	21	Altitude flights only.										
Totals	...	508	—	17.440	140	21	5	4	32	51	30	1



## Polish Sailplane "PWS-101"

THE PWS-101 is the latest of Polish sailplane types, and probably has the best performance. It put up the longest distance flight at the Polish National Contest this year, and at the International Contest tied with two German machines for the distance prize, all three being flown from the Wasserkuppe to Hamburg on the first day of the meeting.

The letters stand for "Podlaska Wytwornia Samolotow," for this, like all other sailplanes and gliders used in Poland, has been designed and constructed in that country. The designer is Czerwinski.

A general arrangement drawing is shown on the opposite page. The machine has a "gull" wing, of single spar construction with a short diagonal auxiliary spar, and the leading edge is of plywood arranged diagonally. The ailerons are each in two parts, and are "dynamically" balanced. They are actuated differentially in such a way that the outer parts move upward to a greater extent than the inner, giving good

manœuvrability in spite of the large-span wing. There are air brakes on both the upper and lower sides of the wing, about half way along each; when they are fully out there is a gap between them and the wing surface. The wing section is one evolved by the designer.

The tail surfaces are cantilever; they include fixed fins. There are tabs on the elevator which work in the same sense as the elevator, and can be adjusted during flight so that the machine can be flown "hands off" at any desired speed.

The span is 19 m. (62ft. 4ins.); wing area 19 sq. m. (204.5 sq. ft.); empty weight 220 kg. (485 lbs.); flying weight 304 kg. (670 lbs.); wing loading 16 kg. per sq. m. (3.28 lbs. per sq. ft.). Safety factor 10 with stick back, 5.5 upside-down, and 1.7 when diving at 300 km. (186 miles) an hour. Minimum sinking speed 0.6 m. (2ft.) per sec. at 55 km. (34 miles) per hour, or, with water ballast, 0.65 m. per sec. at 60 k.m. per hour flying speed. Gliding angle 1 in 26 at flying speeds of 61 to 66 km. (38 to 41 miles) per hour.

## Variometeritis

By "ERMYNTRUDE"

IT had been a stiff climb to the summit of the hill and the unexpected view of a modern type of building on the edge of the ridge warranted a closer inspection.

As I approached the entrance to this building I was met by a man wearing an air of authority who, on my request to be allowed to look round, hesitated and explained that as the wind was blowing from the east it was perhaps not wise to disturb his patients.

The word "patients" aroused my curiosity, and in reply to my queries I learned that this was an institution for those suffering from the mental malady known as "Variometeritis." Now, in common with most folk, I have a horror of mental derangement, and so prepared to beat a retreat; whereupon my companion hastened to explain that none of the inmates was really dangerous—in fact they were all allowed to play outside when a west wind was blowing; it being only when it blew from other quarters that this mysterious ailment overtook them.

Eventually the promise of a cup of tea and a certain curiosity allowed me to be led by my escort into an inner room. Here were a dozen or so men of all ages and types seated at a long bench engaged in the most extraordinary activities. One was playing with a length of glass tube bent into the shape of the letter U. He had half filled this with some coloured fluid and was blowing down one arm of the tube and deriving evident satisfaction from seeing the level of the liquid rise and fall.

Another had an electrical contraption before him into which he also was blowing, accompanied by sounds of contacts making and breaking and flashes of light from electric bulbs.

One young man, otherwise apparently normal, had a block of some transparent material in which two holes had been bored. A small ball could be seen in each of these bores and the whole outfit was connected by a rubber tube to an enormous thermos flask. First, he would lay the apparatus on the floor, then, with almost feline grace, would dive towards it and hold it aloft at arms' length. This procedure was repeated again and again in a tireless manner.

Time does not permit me to describe the antics of all these poor fellows, but one young man with long hair had constructed such a fine piece of apparatus that I could not help feeling that, had his brains been directed along normal channels, he would have been almost a genius.

A large box lay before him, and the familiar sight of a loud speaker facia made me think at first that he was merely an ordinary wireless fan. Seeing my evident interest, he invited me to blow down a length of rubber tube to which the box was connected; this I did, and from the loud speaker, in the unmistakable tones of a Selfridge's lift girl, came the words: "Going up—Going up." I was then asked to apply suction to the rubber tube; I again obliged, and the familiar voice repeated with monotonous regularity: "Going down—Going down." It was explained to me that, as an alternative to the above parrot-like utterances, the machine could, when blown into, render the well-known melody of "Nearer my God to Thee," and when sucked deliver the time honoured recitation of "Don't go down the mine, Daddy."

I left with the uncomfortable feeling that, in spite of the extraordinary mental state of this little colony, they were perhaps getting just as much fun out of their life as I—perhaps more—who knows?