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# FLIGHT MANUAL OF THE ARMED FORCES OF THE USER (MPP-48) (Supercodes MPP-88)

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#### CONTRACTS:

- General principles. p. 7
   Briefly, in very general terms, the importance and goals of flight training, and responsibilities of commanders in this field.
- Glassifications of flights. p. 10
   Basic definitions of terms.
- III. Classifications of airdromes. p. 15
  Definitions
- IV. Daties of flight personnel. p.17 General definitions of make-up of plane crews and their respective duties.
- V. Prerequisites for participation in flights. p.23
  Who is authorized to pilot planes of the Armed Forces in the various classifications of flights; who may give such authorization; who may undertake independent flights, and under what conditions. Who, and under what conditions, is authorized to board planes of the armed forces for flight.
- VI. The techniques of piloting & plane. p. 34

  Definitions of: gpeeds: maximum, cruising, economical, minimum, landing, optimum for horisontal flight and for gaining and lesing altitude, etc..

  Types of landings. Flight maneuvers turns, banks, Immelmans, spirals, etc; single and group. See p 45, 160.
- VII. Training for flight. p. 46
  Preliminary, preflight. Post-flight review. Very general; ne details
  as to courses or institutions.
- VIII. Centrol of flighte. p. 53

  Duties of flight control officer, and flight centrol service. Organization, facilities and decuments for flight centrol. Layout of air field, p. 60-61. General and elementary.
- IX. Flights in the area of the air field.
  Taxi-ing and take-off and landing regulations. Gircling radii; altitudes.
  Sones for various training exercises.
- I. Flights beyond the limits of the air field area, and flights to other air fields. p. 77
  Control arrangements, mavigational and communication preparations.
  Tests of personnel as to pertinent knowledge before flight. The flight list instructions for the flight. Air traffic regulations.
  Responsibilities for control; relations with other air fields, with air garrisons (komendatury)

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- HI. Group flights. p 87
  Definitions of formations. p. 89. Gemand responsibilities. Take off;
  maneuvers for rendezveus over the field, and assembly in formation.
  Bules for changing formations. Signals to be used in event of radio
- All. Instrument (blind) flying. p. 101

  Qualifications for blind flying; restrictions as to conditions for such flying, in training and in regular flights. Changing from fermation flight by instruments, to individual flight. p. 107

  Reference to "Mastavleniye Shturmanskay Slushby Aviatoii VS Unsus" (Mavigators' Manual for USSR Military Aviation) p. 108.

  Waiting sence for instrument-flying planes arriving at an air field. Altitudes and flight course in some of waiting. Radio-location, radio-mavigation, air-ground communication, instruments, and visual factors in approach and landing. (General; little specific data) Air-ground facilities required for landing planes. Responsibilities of commanders organising instrument flights for safety.
- XIII. Hight flights. p. 112.

  Special personnel and material requirements for night flying (ne defects of vicion; ground and plane lighting equipment). Take-off precedures 115-277 war conditions no lights, but safe intervals. Flight circle over the air field at night to the left, as a rule. First turn at 200 m above ground. Precedure in case of failure of plane lights, of plane radio. Intervals between planes in group flights (in general terms only) special problems in night landing, as to calculation of distances, altitudes. Ground light signals to plane. Emergencies requiring immediate landings on field, without waiting for permission precedures for. Landing under various field lighting conditions; use of plane landing lights. Flying in search-light beam.
- IIV. Flights at high altitudes. p. 122

  Definitions; importance of; physical condition of personnel; training required; need for medical supervision; conditions under which flights authorised; attention to equipment; brief general instructions on handling of planes, singly and in formation, in high-altitude flight and in coming down from same.
- XV. Flights in Scaplanes. p. 127
  General layout of a landing area, with shore and other facilities
  (nothing neteworthy) Diagram p. 129. Hight and day take-off arrangements. Charts. Traffic control in landing area. Definitions of terms relating to scaplanes 157. General take-off, landing and schorage rules. Lighting provisions. Rules for special landings: on the open sen in a calm; in a ship channel; on the waves; emergency night landings.
- AVI. Actions of the crew in emergencies during flight. p. 151
  Motor failure, forced landing, damage to plane, bad weather, injury to
  pilet, fire, less of bearings, etc. (nothing noteworthy)
- IVII. Aviation maintenance and supply p 163. Includes, besides obvious items, medical services, air beacons, air weather service.

#### APPENDICES

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- Instructions as to staggering (echelenment) of plane traffic as to altitudes and as to breaking through the clouds. p. 169
- 2. Instructions for the flight duty efficer. p. 179

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- 5. Instructions for the flagman ("starter"). p. 182
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- 5. Instructions for layout fof the field for night take-off. p. 187
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- 7. Signs and signals
  (for communication between air and ground, in addition to use of radio for the same message).
- 6. Flight Sheet. p. 200
- 9. Flight planning table
- 10. Flight planning table for firing or beabing practice.
- 11. Conventional signs for compiling flight planning tables.
  (Translation attached)
- 12. Table defining difficult weather conditions for day and night flights for a plane, a flight, a group and a wing by types of planes.

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Appendix 10.

lying in a circle	*
Flying into a sone	<del></del>
laungs Formation assembly	<u></u>
sombat formation	<b>—</b>
flying on flight course	——————————————————————————————————————
radionavigation, radiolocation	
one-way radio communication	<del></del>
two-way radio communication	Ynp Ng
hoto-recconnaisance	<b>─</b> ₩Φ₩─
Cooperation of [different] types of planes	4+
petrolling	
air combat	
firing on ground targets	- Ynp No
lictions training dive	Ynp No
towing a cone	
firing on an air target	
bombing in level flight	
bonding in a dive (gliding)	YOF No
flight in searchlights <u>Theems</u> 7	
Flying in open cockpit	Ynp Ng
flying in clouds	
flying with limited visibility	-
night flying	<b>——</b>
elestial navigation	Ynp Na
prection of artillery fire	+
ross country flight	<del></del>
	6000m

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2.

photo-control	<b>—</b> -ФК—
photo-firing	<b>—</b> ФС —
flight for towing glider	
flight for dropping parachutists	<b>├</b>
flight for dropping cargo	<u> </u>
low-altitude torpedo bombing	
high-altitude torpedo bombing	
dropping mines	· <del></del>
East-level bombing	

Note: Numerals indicate the number of planes. The number of the exercise  $I_{11}p^2$  Upr = Uprashnenie 7 is written above or below the line.