



International Civil Aviation Organization

## WORKING PAPER

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(Information paper)

English and Russian only<sup>1</sup>

### ASSEMBLY — 36TH SESSION

#### EXECUTIVE COMMITTEE

#### Agenda Item 18: Passenger and crew health and the prevention of spread of communicable disease

#### PSYCHO-PHYSIOLOGICAL SUPPORT OF FLIGHTS IN CIVIL AVIATION OF THE MEMBER STATES OF THE AGREEMENT ON CIVIL AVIATION AND AIRSPACE USE

(Presented by the Interstate Aviation Committee<sup>2</sup>)

#### EXECUTIVE SUMMARY

This paper contains information on the organization of the psycho-physiological support of flights in civil aviation of the member States of the Agreement on Civil Aviation and Airspace Use (further referred to as the Agreement).

<i>Strategic Objectives:</i>	This working paper relates to Strategic Objective E – <i>Continuity</i> .
<i>Financial implications:</i>	Not applicable.

## 1. INTRODUCTION

1.1 Continued complication and perfection of modern aircraft and aeronautical equipment, considerable expansion of the scope of its application, emergence of different socio-psychological problems in the life and work of aeronautical specialists and frequent aircraft accidents and fatal accidents due to Humans Factors (up to 80 per cent) require the earliest settlement of the organizational issues on the formation of the psycho-physiological support of flights in civil aviation of the member States of the Agreement on Civil Aviation and Airspace Use (the Agreement).

1.2 The psycho-physiological support of civil aviation flights of the member States of the Agreement is aimed at solving the issues of improving their safety, preserving the health of aeronautical specialists, prolonging professional longevity and improving the interaction of the crew members and air traffic control (ATC) shifts.

<sup>1</sup> English and Russian versions provided by the Interstate Aviation Committee.

<sup>2</sup> Interstate Aviation Committee (IAC) is the executive body of the interstate Agreement on Civil Aviation and Airspace Use (international agreement, participants of which include Azerbaijan Republic, Republic of Armenia, Republic of Belarus, Georgia, Republic of Kazakhstan, Kyrgyz Republic, Republic of Moldova, the Russian Federation, Republic of Tajikistan, Turkmenistan, the Ukraine, Republic of Uzbekistan).

1.3 The Interstate Aviation Committee (IAC) had prepared a Provision on the Psycho-physiological Support of Flights in Civil Aviation of the Member States of the Agreement on Civil Aviation and Airspace Use, which was approved by twelve member States of the Agreement and recommended for realization in the interested countries.

## **2. PSYCHO-PHYSIOLOGICAL SUPPORT OF FLIGHTS IN CIVIL AVIATION OF THE MEMBER-STATES OF THE AGREEMENT ON CIVIL AVIATION AND AIRSPACE USE**

### **2.1 General**

2.1.1 Psycho-physiological support of flights in civil aviation of the member States of the Agreement is aimed at solving the issues of improving their safety, professional interaction and professional longevity of the aeronautical specialists.

2.1.2 In each State, psycho-physiological support of flights is being realized with the account of the character, scope, tasks and aims of flight operations, aircraft types, number of the flight and traffic control personnel.

2.1.3 Psycho-physiological support of flights in civil aviation organizations shall be organized by a psychologist (psycho-physiologist) who has been trained in general and aviation psychology and received sufficient experience in civil aviation.

2.1.4 The medical service of civil aviation shall exercise its activity in relation to this provision.

### **2.2 Aim of the psycho-physiological support of flights**

2.2.1 Psychological support of the flight and traffic control personnel's professional activity, giving them training in the topical issues of psychological knowledge in flight operations and group psychology of the aircraft crews.

2.2.2 Psychological training and placing of the aeronautical specialists personnel, including pilots and air traffic controllers, with the account of personal and psychological features and ensuring flight safety.

2.2.3 Rendering assistance in carrying out professional selection among the applicants and students of higher educational institutions of civil aviation for the purpose of improving their physical and psycho-physiological characteristics.

### **2.3 Main tasks of the psycho-physiological support of flights**

2.3.1 Providing psychological help to the persons working in civil aviation organizations.

2.3.2 Organizing, improving and conducting psychological training of students, flight and air traffic control personnel for flight operations different in specificity and duration.

- 2.3.3 Increasing the level of the flight crew psycho-physiological readiness for abnormal situations in flight.
- 2.3.4 Carrying out psycho-physiological selection and developing recommendations for the head of the civil aviation organization relating to the advanced training assignment of the aeronautical personnel.
- 2.3.5 Analysis of the psychological causes of the erroneous actions by flight and traffic control personnel while performing flight operations and in case of aircraft incidents.
- 2.3.6 Participation in the optimum acquisition of professional knowledge and formation of flight skills and habits of the civil aviation organization specialists as well as the students of the educational institutions of civil aviation.
- 2.3.7 Collection, analysis and generalization of ergonomic drawbacks of aircraft and aeronautical equipment.
- 2.3.8 Participation in giving training on psycho-physiological issues to aviation physicians, psychologists (psycho-physiologists) and aeronautical specialists.
- 2.3.9 Carrying out scientific and practical research on the topical issues of aviation psychology and psychophysiology.
- 2.3.10 Coordination and organization of professional psycho-physiological check-ups for the purpose of professional selection for the educational institutions of civil aviation, where specialists of different profiles are trained.
- 2.3.11 Introduction of the methods of psycho-physiological check-ups of aeronautical specialists, psychological self-regulation and correction of behaviour reactions in the conditions of their professional activity.
- 2.3.12 Selection and staffing of the aircraft crew members and air traffic controllers' shifts with the account of the scientifically grounded recommendations on the diagnostics and prognostication of their psychological compatibility.
- 2.3.13 Psychological adjustment of the crew members after aircraft incidents and other incidents.
- 2.3.14 Development and use of special psychological means and methods of increasing the aeronautical specialists' working efficiency.
- 2.3.15 Improving psychological competence of the command, flight and air traffic control personnel.

## **2.4 Functions of the medical service of civil aviation concerning psycho-physiological support of flights**

2.4.1 Working out and implementing measures on the psycho-physiological provisions of flights.

2.4.2 Taking part in the organization and conduct of flight and air traffic control personnel training in the field of aviation psychology.

2.4.3 Organizing rendering consultative psychological help for the aeronautical specialists and their family members.

2.4.4 Participating in the analysis and generalization of the aviation physicians' proposals on the psycho-prophylaxis of different dynamic disturbances of the aeronautical specialists.

2.4.5 It shall organize rendering consultative assistance to the physicians of the civil aviation organizations in the psychological issues of the medical and flight expert examination.

## **2.5 Rights and duties of the supervisor of the psycho-physiological support of flights**

2.5.1 The supervisor has the right to:

- a) define the perspective plan of the flight and traffic control personnel training on the topical issues of aviation psychology and present it to the head of the civil aviation organization;
- b) send for psychology (psychophysiology) training certain perspective aeronautical specialists, including aviation physicians, upon coordination with the medical service and the head of the civil aviation organization;
- c) enlist aviation physicians of the appropriate profile (after coordination with the medical service of civil aviation) to solve complicated problems of a psychological character involving flight and traffic control personnel; and
- d) present information on the psycho-physiological training of the flight and traffic control personnel to the heads of the medical service and civil aviation organization.

2.5.2 The supervisor should:

- a) be guided by this provision in his activity;
- b) periodically inform the head of the civil aviation organization and the head of the medical institution about the measures taken; and
- c) make use of the perspective planning in his work.

**2.6 Staff of specialists on the psycho-physiological support of flights and personnel training**

2.6.1 The Aviation Administration of the member State of the Agreement shall appoint a supervisor of the psycho-physiological training for the support of civil aviation flights, who is supervising the activities of all psychologists (psycho-physiologists) of civil aviation organizations.

2.6.2 The staff of psychologists (psycho-physiologists) shall be determined by the head of the civil aviation organization and coordinated with the Aviation Administration of the member State of the Agreement.

2.6.3 Psychology (psychophysiology) training of the medical personnel, having experience of working with flight or traffic control personnel, for civil aviation shall be conducted in specialized medical educational institutions and other educational institutions.

2.6.4 The scope, contents and duration of the aeronautical specialists' psychological training shall be determined in accordance with the official procedure (by order of the Aviation Administration of the member State of the Agreement).

2.6.5 The Interstate Aviation Committee shall coordinate the activity on the psycho-physiological support of flights in the civil aviation of the member States of the Agreement and organize educational and methodical seminars on the main directions of their activity.

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