

23rd SYMPOSIUM ON SPACE ACTIVITY AND SOCIETY (E5)
Space Technologies - Earth Applications (1)

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APPARATUS FOR PSYCHOLOGICAL ASSESSMENT – SPACE AND GROUND IMPLEMENTATION

Abstract

The testing of the nervous-psychic processes is of primary importance for effective and reliable work of the astronauts.

The apparatus “SREDEC” was developed for the first Bulgarian astronaut G.Ivanov and space station “SOLUT 6”. Its tests are for assessment of mental activity, psychoemotional stability, stability and switching over of the attention, and mental stability in conditions of limit and shortage of time.

The apparatus “Pleven” developed for the second Bulgarian Astronaut Al.Aleksandrov and station “MIR” evaluates simple and complex sensory-motor reactions of choice, conditioned motive reflex and reactions on moving objects.

The two apparatus are designed as part of a computer system. The stimulus field is the PC monitor. The desk for reactions is connected to the computer through standard interface. It is possible to combine different test in an assessment procedure. The system calculates and saves the results from each test and evaluates the operator’s state.

The system is universal and reliable. The electronics of the outer panel are not so complex.

The system has an open architecture. It is possible to connect additional panel with other psychological tests.

The gained experience during space flights has been applied for psychological assessment in all Bulgarian laboratories for testing the man-operator (Power station “Kozloduj”, Ministry of transport, Ministry of the health, Ministry of defense, military schools, Military academy, etc.).