municipal surcharges to the cost of living will help. And Accident Insurance is paid by the employer. In Britain Pension Insurance consists of two types:

- 1. State basic, which is the same for everyone;
- 2. State additional, which depends on the average income for the whole length of service. Common system is also used in France and Austria.

Unfortunately, Ukraine has not achieved significant development in insurance sphere yet. At the moment the pension system consists of 3 levels: first and second are obligatory (pension depends on length of service and contributions), third level is non-governmental (citizens create a contract, according to which they voluntarily pay charges, which later come back with per cents). Despite of it, our pension fund is an unstable structure and by some estimates in a few years state won't be able to the social costs, because amount of pensioners is bigger than workers.

The main reasons of slow development are: insufficient amount of reforms, a large number of obstacles towards entrepreneurs. So it disables competition in the market; distrusts of society, reduces development of workers, poor quality of education, corruption. The best social system for Ukraine would be the aforementioned UK pension system, system of helping employees as in Germany, expansion of legal entities, with the right to perform insurance operations as in France and raising the level of medical education as in Austria and also the introduction of medical E-card.

All European countries are developed enough in insurance sphere, since insurance has a big economic and social influence on state development. Although Ukraine significantly lags behind leading countries, it can overtake them quickly, if it takes the necessary measures.

Scientific supervisor: Rozum M.I., Senior Lecturer

UDC 533.661 (043.2)

Boydur E.S.

National Aviation University, Kyiv

## MI-38 HELICOPTER

EUROMIL, a closed joint-stock company, was established in November 1994 to realize the MI-38 development program, a new generation helicopter, within the frames of international cooperation. CC EUROMIL is the general MI-38 program executing company, and as such it provides the control and coordination of activities of the main program participants. EUROMIL is entirely responsible for the MI-38 helicopter development, manufacturing, certification, sales and post-sale support.

JSC Mil Helicopter Plant and Kazan Helicopter Plant are the founders and shareholders of the EUROMIL enterprise. The MI-38 helicopter development was included as priority item into Federal Target Program: "Development of Civil Aviation from 2002 to 2010 and for the period up to 2015".

The MI-38 helicopter exceeds for 2-2.5 times in terms of performance / economics the MI-8/17 helicopter, a basic helicopter, and fully complies with international airworthiness regulations. The MI-38 flight performance will allow this helicopter, in many respects, to replace the heavy lift out-of-production Mi-6 helicopter. The marketing analysis has proved the high cost-effectiveness of the MI-38 program.

The MI-38 maiden flight was performed on December 22, 2003. At present, the first MI-38 prototype is under flight test, while new MI-38 prototypes are being built and prepared to certification tests. The MI-38 main features are: multiple operation functions; advanced performance; Airworthiness Certification in compliance with AP-29, FAR-29, and JAR-29 Regulations; advanced flight safety and reliability; long lifetime and low operation costs; low noise level; high comfort level for flight crew and passengers; on-condition maintenance.

The MI-38 is a multi-purpose helicopter and can be operated in various versions. The passenger version of the MI-38 helicopter can carry up to 30 passengers. The helicopter has luggage bays, lavatory, and flight attendants' working places. The VIP version can provide transportation of high-ranking passengers in conditions of improved conveniences, and may be used as a corporate carrier. The cargo version can transport in-cabin load weighing up to 13,200 lb (6,000 kg) and carry 17,600 lb (8,000 kg) load on the external load sling system. To provide loading, hydraulically operated aft ramp, starboard side cargo door 4.7 ft (1.43 m) wide, electric hoist, rolling crawl and dolly jacks can be used. The combined cargo / passenger version can be used to transport both cargo and passengers. The SAR version can provide the search and rescue operations in the case of emergency on land and/or sea. The medical evacuation version can carry up to 18 injured people and medical personnel. The maritime version is intended for flights over sea and may be used on sea vessels and mining platforms. The MI-38 may also perform forest-relating work, fire extinguishing and high precision construction operations. The MI-38 helicopter is equipped with integrated digital avionics system which provides Electronics Flight Instrument Functions (EFIS) with Colour Displays; Fully coupled automatic flight control via AFCS (Automatic Flight Control System) and Flight Director (FD) System; Flight Management System Functions (FMS); Health and Usage Monitoring System (HUMS); Ergonomically Proved Flight Crew Stations.

> Scientific supervisor: Budko L.V., Assistant Professor