

THE SOCIAL IMPACT OF SMURD AIR AMBULANCE SYSTEM IN ROMANIA

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Abstract: *The analysis of the social impact of the Romanian air ambulance system is an indispensable tool for retrospective and monitoring the efficiency of a governmental organization. The SMURD Air Operator in Romania is the General Inspectorate of Aviation (G.I.o.A.), an organization of major importance in the National Security System as an integral part of the Ministry of Internal Affairs. The greatest benefit for the citizens of Romania is the fundamental right to life a right materialized by the unconditional medical act of granting emergency medical assistance in the shortest time possible. When it comes to the concept of intervention timing, it is well known that aviation is the fastest way to provide emergency care. Shortly this analysis consists of a presentation of the air ambulance system in Romania and the social impact of this organization. A National Review Barometer from February 2017 of the Avangarde Socio-Behavioral Studies Group with a sample size of 780 people is used.*

Keywords: *aviation; life-savers; emergency; social impact*

1. INTRODUCTION

Helicopters and airplanes, as a mean of transportation, have facilitated a significant decrease in intervention time at the site of request, increasing the chances of survival of the critical patient. Since 2003, SMURD has managed to form a fleet composed of ten helicopters and two airplanes. From an operational and strategic point of view, the SMURD intervention unit, set up seven Aeromedical Operational Bases (A.O.B.) equipped with helicopters and materials necessary for their operation. Specialty literature has clearly demonstrated the positive impact on the survival of critical patients assisted by airborne crews, so it is necessary for the Romanian air rescue system to grow up.

2. SMURD AIR RESCUE IN ROMANIA

2.1 Air rescue concept. An air rescue helicopter is an aircraft equipped in accordance with the legal provisions in force for emergency aero-medical interventions to rescue critically ill patients requiring rapid and high-level intervention. A critical patient is defined as having unstable vital functions or with conditions that may have irreversible complications requiring special investigation, intervention and / or special care

provided by a complex, multidisciplinary team in a general or specialized intensive care clinic or department.

Airborne transfer is used when a suitable transfer cannot be secured by land, or if the transfer time on the terrestrial route is longer than the condition of the patient permits, causing worsening or irreversible complications. The traumatized or non-traumatized patient, unstable or with a high potential for worsening during transport, requiring inter-hospital transfer to a specialized facility, should benefit from an optimal transport mode to ensure safe and timely delivery.

2.3 The beginnings of air rescue in Romania.

Thus, in 1935, on the territory of Romania a donation from the Bucharest City Hall to the civil aviation, consisting of a medical plane, was the first structure of this kind. This aircraft was exclusively for aero-medical missions in Romania and was the first of its kind.

The transportation of the wounded carried out during the war by the squadron, proved that the suitably equipped aircraft is one of the most effective means of rescuing human lives. These aspects lead to the development of sanitary aviation in Romania, therefore on 14th of November 1946 the first Aviasan sanitary aviation unit in the country was established. This aviation

unit was directly subordinated to the Ministry of Health of that period.

In September of 1990, an Emergency System named SMUR was established in Târgu-Mureș and later after collaboration with the Fire Brigade (operational part of the service for the decommissioning) became the current SMURD which is a mobile emergency, rescue and extrication unit. Over time, besides the usual missions performed with specialized ambulances, this organization saw the need and importance of the use of air transport for shortening the reaction and transport time of patients in need of medical intervention, so it started to rent aircrafts from private operators. These aircrafts were helicopters or planes of various types, belonging to the Ministry of the Interior, the Ministry of National Defense or to the Utility Aviation from the Ministry of Transportation. These aircrafts were also used to transport critical patients from Targu-Mures to other medical centers in Bucharest or abroad. In such situations, the medical crew consisted of two medical professionals, one of whom was a physician with experience in the field of emergency medicine or intensive care.

In 2003, the current SMURD form of air-medical interventions was born, a strong organization that exceeded the SMAR project by far. Through the initiative of SMURD - Mureș,

directed by Dr. Raed Arafat, in 2003 the foundations were laid for a national helicopter emergency medical assistance system. A major factor that determined the increase of the efficiency of SMURD operations, was the development of the air-lift department. The helicopter, as a means of transport, has contributed to a significant decrease in reaction time at the place of request, increasing the chances of survival. The year of 2003 represents the start of the SMURD cooperation with the Special Aviation Unit of the Ministry of Interior. The context in which this collaboration began was, first and foremost, linked to the major shortcomings represented by the need for SMURD to hire helicopters from private operators.

Since 2003, SMURD has managed to form a fleet of ten helicopters and two airplanes. From an operational point of view the SMURD organization established seven operational bases equipped with helicopters and equipment necessary for their operation (the eighth Aeromedical Operational Base is to be opened in Jibou, Salaj County), with a primary intervention time of 25 minutes of flight for each base. Since 2008, the Special Aviation Unit has been transformed into the General Inspectorate of Aviation (G.I.o.A.) of the Ministry of Internal Affairs. G.I.o.A.-is the air operator that performs independent SMURD missions.

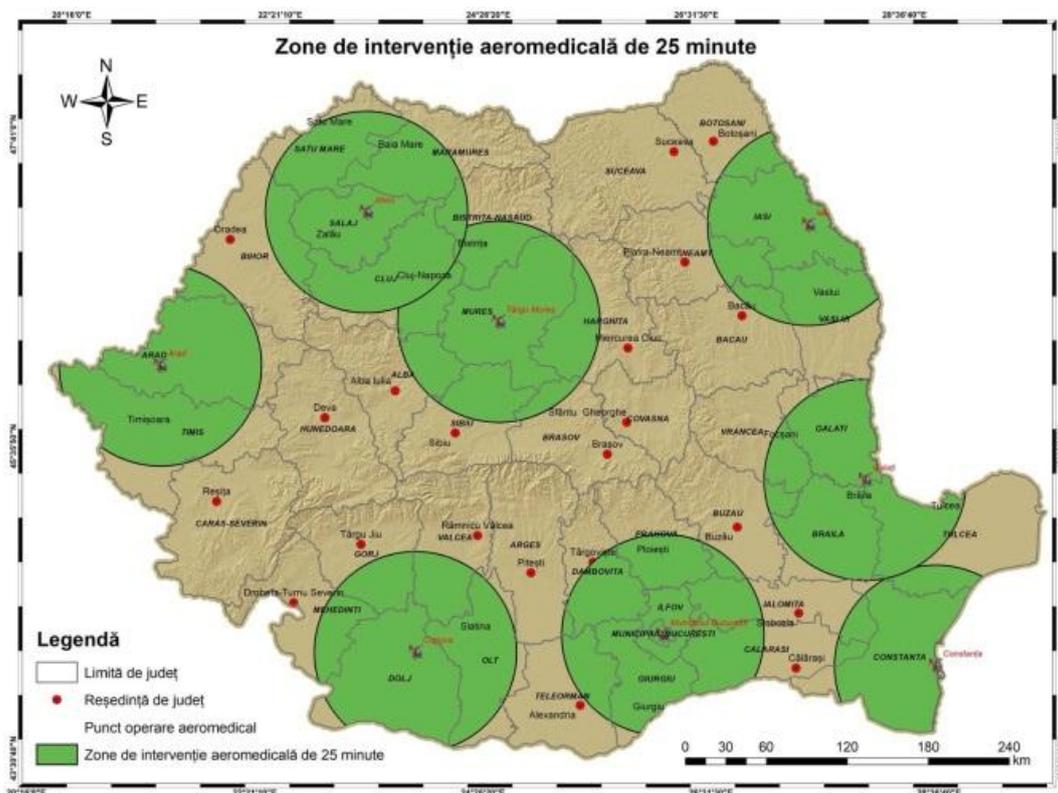


Fig.1 Primary missions chart with 25 minutes of flight intervention time in Romania

2.4 The impact of SMURD Air rescue upon population The social impact of the SMURD Emergency Service in Romania has seen a significant increase once with the development of the emergency aviation component. Besides the fact that aviation is the pinnacle in a field such as emergency medicine, a positive image with a great impact on the population is formed by the use of aircraft, especially helicopters. The impact of SMURD in Romania helps the system to grow through population support, both through political involvement in the development process and through the donations and funding provided to SMURD through SMURD Foundation.

The National Review Barometer dated from February 2017 of the Avangarde Socio-Behavioral Studies Group conducted a study on a sample of 750 individuals over the age of 18, a study with a maximum tolerated error of +/- 4% for a confidence interval of 95%. The result of the survey shows that the Romanian people's confidence in the institution represented by SMURD is 95%, a percentage that places SMURD on the first place in Romania as an organization in which the Romanians trust.

3. CONCLUSION

A positive social impact of an organization like SMURD represents the fuel for development and progress. Without substantial public support, a government organization has no sustainability. The airborne component of SMURD is an effective means of increasing the notoriety of the rescue due to the fact that when a helicopter lands at the accident scene, it represents the point of maximum interest for the population.

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