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ABSTRACT

Title: THE SITE OF EJECTION (LAND OR SEA) AFFECTS PILOT MORTALITY AND MORBIDITY	
Author(s) Name: <u>P. Kousoulis</u> ^{1,2} , V.Zisimopoulou ³ , G.Alevetsovitis ¹ , V.Moutevelis ¹	
Affiliation: 1. Medical Service, 120 Flight Training Wing, Hellenic Air Force 2. General Hospital of Nikea – Piraeus, Department of Otolaryngology 3. 251 General Air Force Hospital, Department of Neurology	
Objectives: The aim of the study was to record the injuries observed after aircraft ejection in Hellenic Air Force and to investigate a possible correlation with the site of ejection (above land or sea).	
Methods: We retrospectively collected the ejection data from all aircraft mishaps of Hellenic Air Force during the time period 1987-2005. The site of the ejection and the type of pilot injuries were recorded. Major injury was defined as any internal organ injury, fracture, (sub)luxation, 3 rd and 2 nd degree (and >5%) burns, deep lacerations and punctures and lost consciousness >1min. Minor injuries were all non fatal superficial injuries and sprains. Pilots who were not injured after ejection were classified into the “no injury” group.	
Results: The records of 60 pilots who had ejected after an aircraft mishap were examined. Three of them (5%) were found with fatal cerebral injuries, 9(15 %) with major injuries, 29(48 %) with minor injuries and 19(32 %) had no injury at all. Eight out of the 33 (24,3%) ejections over land, were found with major or fatal injuries. The respective figure for the 27 ejections over sea was 14,8% (4 cases). A percentage of 15,2% (5/33 cases) of the over land ejections were found with “no injury”, compared to 51,9% (14/27 cases) of the over sea ejections (p=0,0004). Focusing on the major injuries, 6 cases of spinal fracture and 3 cases of extremities fractures were recorded.	
Conclusions: Ejection is a relatively safe escape procedure after a military aircraft mishap and undoubtedly a better option than no escape. The mortality and morbidity rates are comparable to the best published results of other military Air Forces. Most major injuries happen during ejection and fewer during landing. The fact that all Hellenic Air Force pilots undergo periodic water survival training, during which parachute landing at sea is practiced, can account for the significantly high “no injury” rate after “over sea” ejection.	
Name and address for correspondence: Mr. Panagiotis Kousoulis, Emmanouilidou street 8, 17122, Athens, Greece	
Telephone No.: +306983511835	Fax No.:
E-mail: pkousoulis@gmail.com	Date: 01/09/2010