Risk and risk mitigation in international aviation communication

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Risk management, i.e. the identification and mitigation of risk, plays a central role in aviation in general and aviation communication in particular (cf. e.g., Federal Aviation Administration 2009, International Civil Aviation Organization 2013,). Studies have found that about one third of all accidents in air traffic are connected to communication problems (Dietrich 2003a: 6). Additionally, aviation communication, i.e. primarily cockpit communication among pilots as well as radiotelephony communication between pilots and air traffic controllers (cf. Moder 2013: 227; for a definition of *Aviation English* see also Bieswanger 2006), has been described as one type of communication in so-called high risk environments (Dietrich 2003b), which are characterized by a potentially catastrophic outcome in case of communication failure.

This paper focusses on risk and risk mitigation in radiotelephony communication between pilots and air traffic controllers in international aviation. At least three factors that may negatively affect radiotelephony communication and thus increase the risk of accidents have been identified: a lack of proficiency in English (cf., e.g., Intemann 2008, International Civil Aviation Organization 2010), unnecessary deviation from standardized phraseology (cf. International Civil Aviation Organization 2007), and intercultural issues interfering with effective and efficient air traffic control communication (cf. Bieswanger 2013). Each of the three factors will be explored with the help of qualitative analyses of authentic air traffic control communication data from John F. Kennedy International Airport in New York City and proposed strategies for the mitigation of risk in each of these three areas will be discussed.

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