As France and Spain vied for economic control of the independent Italian states in the sixteenth century, King Philip II of Spain’s ambassadors to the courts of such cities as Venice and Rome found themselves in the difficult position of having to report sensitive information (such as enemy troop positions and the status of double agents) while faced with the likelihood that any communiqués would be intercepted and read by the very enemies whose actions they were reporting. Thus, particularly sensitive sections of the messages were enciphered. Drawing from eight such documents sent between December, 1569 and April, 1576 and found in the State Archives in Simancas, Spain, this presentation will discuss the relatively basic statistics and cryptanalytic techniques which enemy operatives could have employed to decipher and read them. More broadly, a system will be proffered to quickly decrypt other documents enciphered using the same methods. (Received September 28, 2005)