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The Role of the Air Force in the Conduct of the Coup d’Etat

Honors Thesis 2018

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Abstract

The literature on civil-military relations universally asserts that air forces play little to no role in the prevention or conduct of the coup d’etat. This thesis contests this claim. Air forces have an extensive history of involvement in planned and attempted coup d’etats. In addition, air forces throughout the developing world are heavily coup-proofed at extreme cost in both military effectiveness and financial resources. The second section of this work establishes a theoretical framework that suggests a plausible explanation for this oversight in the theoretical literature. This gap in the literature is due to the field’s heavy focus on cases of successful coups. When the scope is broadened to include coup attempts, the role of the air force emerges. This thesis contends that innate technological and human characteristics associated with air forces and airpower result in (1) the high capacity to attempt coups, (2) a low ability to succeed in coup attempts, and (3) a high propensity to attempt coups regardless of the low rate of success. The applicability of this framework is illustrated through three in-depth case studies of the role of the air force in coup attempts in Morocco, Iraq, and Iran.
Literature Review

The modern sub-field of civil-military relations within the study of government and international relations can be traced, in large part, to the theories of Samuel Huntington and his seminal work, *Soldier and the State*. Huntington’s work helped define the terms of debate in civil-military relations, and this review will begin with an in-depth review of his theories on the nature and importance of professionalism in productive civil-military relations. It will then provide a partial critique of Huntington’s theories through Roquie’s study of Latin American coups. However, there is by no means a consensus within the literature as to the importance of professionalism as the main determinant on the nature of civil-military relations. Alternative causal variables include political legitimacy, internal-external threat, and the unique nature of various military branches within the armed forces. Each of these alternative variables will be addressed in turn to provide a comprehensive overview of the key literature in the field. In whole, this branch in the literature focuses on establishing the causal mechanisms behind good and bad civil-military relations.

In parallel with these disagreements over causality, an extensive literature emerged following the work of Luttwak that examined the mechanisms through which coups emerged and sought to explain the nature of the worst state of civil-military relations; the coups d’état. Scholars in this vein of literature began to examine the implications of coups and the detailed governmental process of coup-proofing. The latest work by Quinlivan, Biddle and Zirkle, Pilster and Bohmelt and others examines the costs incurred by states that utilize coup-proofing mechanisms rather than professionalism to maintain civilian control of the armed forces.

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1 Huntington 1981
2 Finer 1976
3 Desch 2001 and Downing 1992
4 Hintze 1975
5 Quinlivan 1999
6 Biddle and Zirkle 2008
7 Pilster and Bohmelt 2011
Finally, this review will discuss the limited available literature, both in the airpower and civil-military relations subfields, that is directly applicable to the role of air forces in coup d’etat. The civil-military relations literature universally dismisses the ability of the air force to carry out, or aid significantly in, the conduct of a coup. Conversely, the airpower literature is split on the ability of foreign airpower to significantly aid in the conduct of a coup. However, this vein in the literature fails to apply this logic to the role of domestic air forces. Even portions of the literature that argue that foreign third party forces can provoke a coup make no mention of the domestic air forces and their role in a coup d’etat.

The first branch in the civil-military relations literature, which focuses on the origins of poor civil-military relations arguably began, not with Huntington in the 1950s, but in the early 20th century with the work of Otto Hintze. Hintze looked to the type of armed force fielded by the state as being an integral variable in determining the nature of its relations with the civilian government. His analysis aims to explain both the reasons why poor civil-military relations emerge as well as the relative capability of the various armed services to successfully carry out a coup d’etat. Fundamentally, Hintze postulated that the army, militia, and navy are compatible with different forms of government and poor civil-military relations emerge when these two variables are in disconnect. In his era, large professional land armies had an officer corps drawn from the landed gentry and were allied with conservative political forces and held hierarchy and order in high regard. Thus, they were of little threat to monarchies and like-minded conservative government despite their high

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8 Fahrenkrug 2006 and Pape 1996
9 Ibid
10 It should be noted that Hintze’s analysis is heavily rooted in the makeup of the officer corps in armies at the turn of the 20th century. Additionally, nations of his time were fundamentally single branch forces that heavily prioritized one branch over the others. States with the capacity to field both a large navy and army were historical abnormalities and the armed forces of a state were based primarily upon the strength of one branch. Hintze 1975
11 The lack of an analysis of the role of the air force is due to his work preceding the use of aircraft in armed combat.
utility against internal enemies”

Militias are soldiers of the people and are most compatible with democratic governments. However, these forces have a moderate utility against internal enemies when the majority of the population supports the government in its repression. Finally, Navies have an officer corps drawn from the cities and universities of a state. They favor progressive and cosmopolitan governments yet have relatively love utility against internal enemies. Hintze’s work is consistent with later 20th century works in his assertion that coups are fundamentally the purview of a land army.

Although Hintze’s analysis is deeply rooted in the origins of the officer corps, which restricts his direct applicability to modern times, his theory’s focus on the fundamental capabilities or “utility” of the various branches armed services renders his work of great significance to this work. This aspect, when combined with his analysis of fundamental and distinct “natures” held by the various branches, makes Hintze’s framework the bedrock upon which much of this work rests.

Following Hintze’s work, the cold war inspired a number of civil-military relations scholars who continued the search for an applicable formula for good civil-military relations. In Hintze’s framework, civil-military relations are determined by set variables; namely the structure of the civilian government and the orientation of a nation’s military forces. Scholars in the cold war era increasingly focused on formulating policy-relevant frameworks evaluating civil-military relations.

One of the preeminent scholars in the cold war era, Samuel Huntington revolutionized the field of civil-military relations through his work The Soldier and The State. Huntington postulates that the revolution in military affairs at the turn of the 20th century created a true

12 Hintze 1975
13 Although Hintze used utility to solely evaluate the capacity of military force to quell revolutions or coups, his theories are directly applicable to the coup plotters themselves. Revolution and counter-revolution are merely two sides of the same game once hostilities break out. The notion of studying civil-military relations from the side of the coup plotter would not emerge until work by Finer and Luttwak in the latter half of the 20th century.
professionalism within the officer corps of modern militaries.\textsuperscript{14} This concept includes the three facets of corporateness, expertise, and responsibility. Rather than just being the gentry of a state, officers were now experts in the “management of violence”. They now attend officer staff colleges and devote themselves fully to the study and practice of conflict. Corporateness is used to describe the new bureaucratic structure of military organizations in the 20th century. Yet, these officers are differentiated from the condottieri mercenary armies of previous centuries by their responsibility to the state above and beyond financial remuneration. This set of professional attributes (corporateness, expertise, and responsibility) form Huntington’s concept, the military mind; the concept that the mind of a military officer is completely separate and distinct from that of civilian leaders.\textsuperscript{15} Military skills and approaches to problems were seen, for the first time in history, completely separate from those held by the leadership of the state. This created a new military sphere separate and distinct from the civilian sphere. A truly professional military will gladly limit its role in the state to the military sphere and has no desire to interfere with politics or civilian areas of governance.\textsuperscript{16}

Huntington does recognize that militaries, in practice, often interfere in domestic politics in areas wholly unrelated to the management of violence. He then postulates that the origins of this unprofessionalism lie in the initial interference of civilian authorities in the military sphere. Huntington separates the methods through which the civilian government maintains control over the military into two distinct methods; subjective and objective control. Subjective control inserts civilian interests into the military sphere. Once violated, the military sphere then spills over into the civilian sphere and poor civil-military relations are inevitable. Objective control, however, is cognizant of the distinct nature of the military

\textsuperscript{14} Huntington 1981
\textsuperscript{15} Ibid
\textsuperscript{16} Ibid
sphere and, while setting the fundamental objectives and political goals, allows the military
the autonomy to manage its own affairs and operations.

In his analysis of Latin American coups in the mid 1900s, Rouquié challenges the
Huntingtonian hypothesis that objective control will necessarily result in good civil-military
relations.\textsuperscript{17} The vital contribution made in this work is the importance of \textit{relative}
professionalism between the civilian and military administrations. Huntington’s analysis, and
its focus on Western European civil-military relations, missed the fairly common occurrence
of military structures that were more professional than their civilian counterparts. In such a
situation, the relatively higher proficiency of the armed forces in their duties stands in stark
contrast to the relative deficiencies of the civilian government. During the Cold War,
competing foreign benefactors were relatively unconcerned with the operation of the civilian
government and provided significant quantities of aid to strengthen military institutions,
bureaucracies, and technical expertise which exacerbated this contrast between civilian and
military professionalism. Rouquié contends that a professional military will be loath to accept
even objective control by a relatively inept civilian government and be tempted to seize
control of the civilian sphere in order to impose order. This examination of the importance of
\textit{relative professionalism} makes the implicit assumption that the military acts as an
independent actor with vested interests within the state.

Finer, in \textit{The Man on Horseback: The Role of the Military in Politics}, reverses the
logic of Huntingtonian civil-military relations and proposes a logical framework in which the
natural state of civil-military relations is for the armed forces to be in charge of the state.\textsuperscript{18} In
fact, he argues that the conception of civilian control over the military is a recent
development and relies on a certain level of political culture within the state. Once the state
achieves a high level of political culture, the populous refuses to accept military rule or

\textsuperscript{17} Rouquie 1989
\textsuperscript{18} Finer 1976
intrusion in the civilian sphere as legitimate. This imposes excessively high costs on the military as a price for overt intrusion into civilian governmental affairs and results in more covert methods through which the military influences policy in the civilian sphere of governance. Ranging from mere influence to blackmail and displacement of a civilian regime, Finer challenges Huntingtonian notions of distinct military and civilian spheres and instead presents a framework in which militaries always intrude on civilian affairs. The constraint on the degree of military interference in government not their professionalism but the level of political culture within the state.

Desch counters Finer’s logic on the role of political culture as the determining factor in civil-military relations and postulates that internal/external threat dynamics play a key role in determining the nature of civil-military relations within a state.\(^\text{19}\) His theory contends that the military as an externally-focused professional organization operates as such when it is given an external threat to defend against. In the absence of a significant external threat to unify the military and civilian governments against a common enemy they naturally compete for funding and influence at the domestic level. The military’s organizational interests during peacetime are fundamentally different than those of the civilian government and competition will occur. Either actor, the civilian government or the military, may play up foreign threats to unify the government against a foreign enemy.

Both Desch and Finer take the military’s bureaucratic nature in the Huntingtonian framework and view the military independent actor with agency in domestic politics. Interestingly enough, neither author disagrees that the military would prefer to be involved with issues of its own expertise in the management of violence. However, they are skeptical of the ability of this preference to overwhelm organizational interests in times of peace. Finer has little trust in the ability of a civilian government without legitimacy and political culture

\(^{19}\) Desch 2001
to constrain their military forces from interfering in governance to protect their organizational interests. Similarly, Desch contends that in the absence of an external threat, internal disputes over budget, organizational autonomy, and other matters will set the military in competition with the civilian government.

The theoretical disagreements over the origins of bad civil-military relations, and in extreme cases coup d'états, all fail to provide practicable policy recommendations for states. Hintze’s theoretical framework takes the governance structure of states to be a byproduct of their type of armed forces (Army, Navy, or Militia) and coups are the result of a government that is not compatible with its army. This does little to advise states in the modern era who desire to maintain democratic governance as well as maintain a professional land army. Likewise, an autocratic or monarchical state is unlikely to give up its naval forces if they are strategically necessary for defense. A Huntingtonian prescription to practice objective control works in principle when a state has good civil-military relations, yet finds few advocates in governments fearful of a coup d’état. Giving more free reign and lesser political controls over military promotions, assignments, and policies in order to, in the future, improve civil-military relations does little to advise governments on how to prevent a military coup in the immediate term. Both Finer’s recommendation to improve political culture and Roquie’s suggestion to balance the relative professionalism between the army and civilian government are better in theory than in practice. Attempts to deprofessionalize the military will be met with strong resistance by its officer corps while long term and fundamental problems, such as corruption and nepotism, limit the professionalism of the civilian government. Similarly, advising a state fearful of a coup d’état that it needs to improve its level of political culture is an impractical short term solution. Finally, Desch’s framework on the origins of civil-military relations has a concrete, if unpalatable, policy recommendation to rectify poor civil-military relations. A dramatic increase in tensions or the outbreak of hostilities with a neighboring
state may help dampen tensions between a government and its military. However, as an organization with distinct and independent interests, a civilian government advocating conflict walks a fine line between increasing external threat and initiating a conflict the military fears it cannot win. In such an instance, the civilian government is likely to experience poor civil-military relations as well as a destructive and unsuccessful military adventure.

In sum, the literature focused on causality in civil-military relations fails to provide a practicable solution to short term civil-military relations crises other than to engage in diversionary warfare against a weaker neighbor. This pessimistic analysis of the nature of civil-military relations in the developing world is largely consistent with the near constant coups and interstate warfare seen across much of the southern hemisphere. Puzzlingly, this wave of coups ended abruptly in the late 1990’s with the rise of stable autocratic regimes across the Middle East and South America. To help explain this shift, the applied vein of the civil-military relations literature in the 2000’s has focused on the practice of coup-proofing as an attempt for the state to institutionally prevent the successful implementation of a military coup during a time of peace.

Luttwak, in his seminal work Coup d’Etat, outlines the logistical and practical details of the conduct of a coup and its practical considerations. “It is therefore not concerned with a theoretical analysis of the coup d’etat, but rather with the formulation of the techniques which can be employed to seize power within a state.”\textsuperscript{20} Luttwak outlines a framework through which small portions of a government seize power in an extrajudicial manner. Although this work details the practical considerations for the conduct of a coup from the coup plotters’ perspective, it sparked a new vein in the literature that approaches the problem of coups and civil-military relations from a pragmatic perspective. Rather than rely on a systemic-level

\textsuperscript{20} Luttwak, 1979 Preface
analysis, Luttwak and other scholars in the pragmatic vein of the literature, focus on the operational or tactical implications of poor civil-military relations. If a state cannot change the fundamental variable that makes it susceptible to a coup, whether it be political culture, professionalism, relative professionalism, or internal/external threat, it can construct state institutions that greatly decrease the likelihood of an attempted coup d’etat resulting in successful regime change. This next section will give a broad overview of the pragmatic literature on the practice, and costs, of coup-proofing a state.

Quinlevan and his conception of a “coup-proofed” state revolutionized conceptions of civil-military relations and helped explain the survival of regimes who the traditional literature would name as prime targets for coups. While other scholars addressed the precipitous drop in coups since the 1980s, Quinlevan was the first to place this trend within a theoretical framework that acknowledged the emergence of a institutionalization of counter-coup techniques into a fundamental shift in power between a state and its military.

Quinlevan introduces five common characteristics of coup-proofing; “(1) the effective exploitation of family, ethnic, and religious loyalties for coup-critical positions balanced with wider participation and less restrictive loyalty standards for the regime as a whole; (2) the creation of an armed force parallel to the regular military; (3) the development of multiple internal security agencies with overlapping jurisdiction that constantly monitor the loyalty of the military and one another with independent paths of communication to critical leaders; (4) the fostering of expertness in the regular military; and (5) the financing of such measures.”

However, Quinleven does not believe that coup-proofing as an institutional tool a conscious effort, but a by-product of fear. It is also not coincidence that these leaders at the forefront of this nascent movement, particularly in the Middle East, came to power through coups. “These leaders may not have initially understood what their regimes would come to be, but

21 Be'eri 1982
22 Quinlevan 1999
23 Quinlevan 1999 133
successive decisions on who would or would not be trusted with power have led to the development of states in which much of the leaderships’ energy is now spent on protecting the regimes themselves.\textsuperscript{24} The incredible costs of coup-proofing, and its secondary effects on military effectiveness in combat, spawned an entirely new vein of inquiry in the civil-military relations literature.

Coup-proofing, now acknowledged as highly effective in ensuring the maintenance of autocratic regimes with non-professional militaries, comes with a multitude of costs. Biddle and Zirkle find that coup-proofed armies have incredible difficulties incorporating new and emerging technologies\textsuperscript{25}, while later work by Quinleven argues that parallel regime-defense militaries are useless in the conduct of war as they are “stuck” in the capital protecting the regime.\textsuperscript{26} Ethnic stacking of the armed forces, an extremely common coup-proofing method, greatly increases the risk of the outbreak of civil war within the state.\textsuperscript{27} This emerging literature recognizes that rulers’ preferences are, especially in autocracies, distinct and often in opposition to the interests of the state itself. Militaries are not optimized for interstate conflict, but deliberately hamstrung by a ménage of coup-proofing measures enacted to minimize the threat of a coup.

The modern practice of civil-military relations is fundamentally divided by the practice of professionalism in modern western militaries, and coup-proofed, deliberately unprofessional militaries, in the developing world. Yet, across the literature there is a universal dismissal of the air force as a player in the “game” of the coup d’état. This section will briefly demonstrate the universality of this statement across the academic literature. Luttwak states that “Though most states have naval and air forces, as well as armies, we shall

\textsuperscript{24} Quinlevan 1999 134  
\textsuperscript{25} Biddle and Zirkle 1996  
\textsuperscript{26} For one example, examine the conduct of Syrian elite units during the 1967 war with Israel who, despite desperate need for their deployment to the Golan heights, stayed in their barracks in Damascus and Holmes to maintain control of the regime.  
\textsuperscript{27} Roessler 2011
concentrate our attention on the latter because the procedures to be followed are usually the same for all three services, and because - with some exceptions - only land forces will be important from the point of view of the coup.” 28 Quinleven concurs and contends that “The parallel military is almost inherently a ground combat force. Coup-proofing practices, however, frequently extend to air or naval forces - for example, restricting fuel (and hence range) for training flights is common in the Saudi air force. The essence of coup-proofing, though is to prevent troops from moving on the centers of the regime, a task best accomplished by a ground-based parallel military”. 29 Pilster and Böhmelt follow with the claim that “Navies and air forces are only of limited suitability in the conduct or prevention of a coup. Coups d’état usually do not—at least if they proceed as planned—involves the large-scale use of direct force...The purpose is to quickly gain control and ensure the support of the existing state apparatus, not to destroy it. Neither tactical bombing of a country’s capital nor the shelling of naval towns seems suitable for achieving these goals” 30 More recent work by Powell continues this trend of dismissing the role of the air force in coups. “Navies or air forces that lack ground soldiers, of course, could be said to have little chance at either undertaking a successful coup or combating one.” 31 However, Luttwak also claims that “The effectiveness of modern soldiers, with their rapid transport, reliable communications and efficient weapons, means that even one single formation loyal to the regime could intervene and defeat the coup.... our investigation of the armed forces of the proposed target state must, therefore, be a complete one: we cannot leave out any force capable of intervention - however small.” 32 Be’er in his work on Arab civil-military relations points out that “in Iraq - and only in Iraq - part of the air force has taken part in occasional

28 The exceptions that Luttwak mentions are in geographically dispersed states such as Indonesia in which air or naval transport are vital to the success of a coup. Luttwak 1969
29 Quinleven 1999
30 Pilster & Böhmelt 2011
31 Powell 2014
32 Luttwak 1969
However, in the period since 1970, when the book was published, the air force is
publically known to have attempted coups in Morocco, Saudi Arabia, and Iran. No longer can
air force coups be resigned to an Iraqi specific problem. It is the contention of this work that
air forces, although admittedly not as vital as ground forces in the conduct of a coup, play
that “small” but vital role in the civil-military relations of some coup-proofed states.

Other than these offhand dismissals of navies and air forces, the literature since Hinze
at the turn of the 20th century has treated militaries as single unitary actors and dismissed the
fundamentally distinct attributes of the military branches. This thesis hopes to reintroduce
that nuance to the study of civil-military relations through a plausibility probe of the logic of
the use of the airpower and the conduct of the air force in the coup d’état.

Methods

Any examination of the inner workings of the intelligence services or civil-military
relations is extremely limited by the lack of unbiased and open-source evidence. In addition,
the window for automatic declassification for secret documents in the US is 25 years and
many relevant details of intelligence reports regarding coups remain classified for
considerable periods beyond the 25 year mark. This places significant limitations on the
methods through which coups, coup-proofing strategies, and elite fears of the air force can be
studied.

This inherent challenge in studying the coup d’état is well captured by Luttwak in the preface
to his 2016 edition of *Coup d’Etat: A Practical Handbook*. “Over the nearly five decades
since the original publication of this book, I have been told from time to time that it served as
a guide for this or that coup.” Yet, there is only one case in which there is conclusive
evidence that the book was studied by the leader of the 1972 coup attempt in Morocco.

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33 Be’eri 1970 256
34 Luttwak 2016 xx
the coup was defeated, and the leader was summarily executed, a “heavily annotated and blood-splattered copy of the French edition of this book was found on his desk.” In the absence of conclusive evidence regarding the plans and motivations of coup plotters, the most that can be accomplished is a logical framework in which to examine coups and coup-proofing practices. Attempts to use a quantitative analysis to evaluate coups are especially vulnerable to this limitation in available and accurate data and, as a result, often solely focus on successful coups or improperly include coup attempts that were allowed to proceed in order to fill domestic political needs. This work takes the form of a plausibility probe that establishes a logical framework for the latent capacity and propensity of an air force to attempt coups and discuss the various methods through which leaders utilize coup-proofing to assuage fears born of that latent threat.

This thesis begins with a comprehensive overview of coup attempts and plots involving the utilization of airpower by a military faction to seize power of the state. These instances are referred to throughout this work as “air force coups”. Once completed, these instances of air force coups were analyzed and a comprehensive framework established that captures the unique elements of air forces, and airpower, that substantially impact the manner in which they engage in coup d’etats. Finally, a trio of case studies were utilized to demonstrate the applicability of the framework in analysing the human and technological characteristics that affect the conduct of the air force in a coup d’état.

The cases in this thesis were selected based on two criteria. First, there must be sufficient declassified and academic information available regarding the specific details of the coup attempt or plot being examined. Many recent coup attempts, take the air force coup attempt in Turkey in 2016 for example, lack detailed and reliable open source accounts regarding the actions or even the identities of key leaders in the coup attempt. Other attempts, such as the

35 Ibid xxi
36 For example, this thesis does not consider Kenyan coup attempt as it did not utilize airpower and merely was a coup attempt by low level officers in the air force.
Saudi Arabian air force coup attempt 1969\textsuperscript{37}, were allegedly prevented with US assistance and, consequently, documents involving the attempts remain classified. Older coup attempts prior to the 1960’s are generally not subject to rigorous academic study as the field was in its infancy and, despite the availability of declassified documents, generally lack the detail necessary to examine the inner dynamics of the coup plotters themselves.

Beyond the need for sufficiently detailed information regarding the conduct of the coup, there also must be sufficient information to reliably determine the motivations of coup plotters. Some of these human characteristics can be devised from the specifics of the attempt itself. However, others are more reliant on leadership fears and, in the presence of incomplete or unreliable information, are more difficult to isolate. These leadership fears are able to be isolated through the actions taken in the aftermath of a coup attempt. Namely, the methods of coup-proofing utilized by a government to assuage fears of air force disloyalty speak directly to the aspects of the air force a respective state finds most threatening. Backtracking leadership fears from their observable actions in coup proofing their air force provides valuable insights in a way that bypasses concerns of bias or limited information. Thus, in order to properly evaluate the presence of human characteristics in the coup attempts, the cases must involve the imposition of coup-proofing methods to restrain the air force following the coup attempt.

The combination of these two limiting factors resulted in the selection of the 1963 coup in Iraq, the 1972 coup attempt in Morocco, and the 1980 coup attempt in Iran. In all three cases, detailed and reliable information regarding the role of the air force and airpower in the coup attempt is available. Additionally, each case features the imposition of extensive coup-proofing in the aftermath of the attempt. The insights provided by these measures does effectively limit the cases to the Middle East-North African region where coup-proofing is

\textsuperscript{37} Kechichian 2001, 104
almost universally implemented. However, despite this regional concentration, the framework
draws upon technical and behavioral characteristics that are present in any air force
worldwide. Thus, the case selection does not limit the applicability of the conclusions
reached in this thesis to any particular region. By drawing upon twin sources of insight, this
essay can utilize these cases to provide a comprehensive analysis of the unique nature of air
force involvement in the conduct of the coup d’état.

Theory
This essay begins with extensive literature on the nature and costs of coup-proofing practices
and contends that, due to their high costs in effectiveness and capital, coup-proofing will not
be applied unnecessarily. It will then establish that the coup-proofing of air forces is a nearly
universal practice stretching back to the 1950s. The expenditure of such sums on coup-
proofing air forces rebuts the assertion made by the theoretical literature that the air force
plays a negligible role in the conduct or prevention of the coup d’état. Either these sums are
being spent negligently or the theoretical literature is incorrect in omitting the air force from
its analysis. This essay, and the relative frequency of air force coup attempts despite
extensive coup-proofing measures, suggests the evidence supports latter explanation. This
following section lays out a theoretical framework that suggests plausible threats posed by
the air force in the conduct of a coup.

The characteristics of air forces that are directly relevant to their conduct in a coup d’état fall
under two distinct categories; Technological and Human Characteristics. The identification of
these characteristics is derived from the airpower literature and intelligence analyses as well
as the existing literature on coup-proofing.

Technological Characteristic #1
The first technological characteristic of the air force that poses a latent threat to their
government is their high firepower to personnel ratio. Where each other branch of the armed
forces can bring significant firepower to a coup d’etat, such an action also increases the size of the coup and correspondingly raises the risk of detection. The firepower to personnel ratio in the air force is highly variable, but increases dramatically and concentrates firepower more than any other branch. Initially, there is a significant number of individuals involved in fueling, arming, and other logistical support for the aircraft at an air base. Additionally, helicopters and fixed wing aircraft are relatively defenseless on the tarmac and during take-off. However, once a fighter or bomber pilot is in the air there a single pilot can join the coup independently and lend potentially pivotal fire support. At the “tip of the spear” the firepower of the whole air wing is under the total discretion of the pilots currently in the air. The other 96% of air force personnel are relatively powerless to restrict the actions of pilots once jets are in the air. Thus, the minimum viable size for a coup plot is much smaller in an air force than in a ground force.

This technological characteristic of the air force requires a significant degree of trust between a government and its pilots. Yet, in states with poor civil-military relations with governments fearful of a coup, that trust is by definition lacking. This characteristic was identified in both the limited theoretical literature on air force coups as well as specifically targeted through costly coup-proofing methods that attempted to increase the minimum viable size of an air force coup. Pilots in some air forces are forbidden to go on single patrols and others are subject to strict limitation of pilot autonomy during missions. “Iraqi pilots apparently cannot substitute their own judgement even when they are in a better position to direct their aircraft.”

38 Pilot to active personnel ratio from the United States used as reference. US Air Force 2018
39 Luttwak 2016, 68
40 CIA-RDP88T00096R000700910001-5
41 Ibid 11

“(Redacted source) says that, on some missions involving more than one aircraft, only the leader knows the destination and the others just follow, dropping their bombs on
command.” These procedures significantly raise the coordination cost of an air force coup by requiring the plotters to involve multiple pilots and consequently lessens the tactical implications of the firepower to personnel ratio inherent in the air force.

**Technological Characteristic #2**

The second technological characteristic of air forces that contributes to their latent threat is their extremely high mobility. Typical coup-proofed states highly restrict entrance into the capital by all but a select group of elite praetorian units. However, the high mobility of fighter aircraft moving at, or above, the speed of sound make such restrictions largely irrelevant. This is not to say that regimes did not attempt to blunt this technological characteristic through coup-proofing methods. The Iranian clerical regime created a restricted airspace around Tehran and other population centers. “Fighter aircraft flying defensive patrols were not permitted to fly closer than 65 kilometers to major Iranian cities because, (REDACTED) the regime feared a possible coup attempt.” Other restrictions included strict limits on the amount of fuel issued to pilots on defensive patrols or training exercises. These restrictions have significant and negative impacts on combat performance and a marginal, at best, impact on the ability of the air force to attempt a coup d’etat. An Iranian F-5 Phantom II fighter bomber would only be delayed just over a minute by the 65 km buffer zone; hardly enough to alter their ability of the air force to support or launch a coup attempt.

**Technological Characteristic #3**

The final technological characteristic of air forces that poses a threat to the regime is the relative immunity of aircraft to traditional coup-proofing methods. Praetorian guard units, the elite military units stationed in the capital, are generally highly trained infantry armed with anti-tank weaponry to nullify the advantage the regular army holds in armored vehicles

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42 Ibid 11
43 CIA-RDP85T00314R000300020001-7
44 Quinlevan 1999 142
45 Boeing n.d. 1
and tank forces. However, these units are largely useless against fixed wing aircraft and have minimal utility against rotary aircraft unless specifically outfitted with MANPAD (man portable air defense) weaponry. Building off of the second characteristic, geographical coup-proofing is largely ineffective in preventing an air force coup. Restricting access to the capital, as mentioned in the previous section, is largely ineffective when dealing with a threat from the air. States commonly station personnel from various competing groups in the regions surrounding the capital to prevent any one group from having a clear path to march on the seat of government. This is also relatively ineffective when dealing with rebel air squadrons as they can simply fly over ground units.

Coup-proofing methods seeking to reduce this technological threat include strict divisions between air defense and the air force itself, arming coup-proofing units with anti-air weaponry and dividing the air force itself. The Egyptian military, for instance, has four distinct branches; the Army, Navy, air force, and Air Defense with Air Defense and the air force falling under separate chains of command. In addition, elite coup-proofing units are sometimes equipped with light anti-aircraft weaponry including man-portable surface to air missiles (MANPADs). The infamous Khamis brigade in Libya, for example, was equipped with SA-7 Strela surface to air missiles as well as brigade level radar equipment. While most states lack the funding to field a full parallel air force, states do commonly introduce divisions within the air force to use it to balance against itself. Qaddafi distrusted the Libyan air force and created a “so-called ‘Guard Squadron’ of MiG-23s”. The Saudi Arabian national guard, a light force designed as a counterweight to the regular army, is in the process of equipping an aviation brigade which will be stationed just outside the capital and equipped with a variety of light and heavy assault aircraft. The royal guard, the equivalent of the

46 Cordesman 2006 175
47 Mueller 2015 46
48 Mueller 2015 45
49 Jennings 2017 1
American secret service, purchased 10 Apache Block III gunships in 2010 giving a previously light infantry force significant air assault capabilities.\textsuperscript{50} However, even in the event of parallel air forces, the first two technological characteristics, firepower and mobility, give rebellious airpower a significant first mover advantage. Rebel airpower can disable or destroy loyal coup-proofing air force units with relative ease by targeting the airstrips of loyalist airbases.

In sum, these technological characteristics of the air force as a branch generate a latent threat to the government that is difficult to assuage with traditional coup-proofing practices. However, states have responded by instituting air force specific coup-proofing measures designed to limit the mobility, firepower, and ability of units to strike regime power centers.

Human Characteristics Inherent to the Air Force

Despite their ability to explain the capacity of the air force to attempt a coup, these technological factors fail to explain the relatively high propensity of air forces to attempt coups given their incredibly low rates of success. For explanations regarding propensity, this work will turn to the human characteristics of the air forces as an institution. The technological intensity of the air force makes them difficult to ethnically stack, require high rates of foreign training and instruction, and creates an innate resistance to purges or political indoctrination given their relatively irreplaceable skillset.

Human Characteristic #1

The intense physical and educational requirements of the officer corps in the air force make the branch relatively difficult to ethnically stack and bring within the true “elite” of the armed forces. First, a very small segment of any population will meet the strenuous physical and

\textsuperscript{50} DSCA 2010 1
educational requirements necessary to excel as an air force pilot or even work in skilled logistical support positions. Given that the elite groups within most coup-proofed societies are incredibly small, even the sprawling thirty thousand member al-Saud family makes up less than .1 percent of the Saudi Arabian population\(^{51}\), this makes it difficult to draw the pilot cadre of an air force from the true elites. Attempts at ethnic stacking therefore operate at lower levels such as tribal or religious cleavages rather than direct family ties. The Libyan air force was “staffed almost exclusively”\(^{52}\) by Gaddafi's tribe and the Syrian air force heavily staffed by Alawites\(^{53}\). In the Libyan case, the true elite were blood relatives of Gaddafi while secondary positions were held by in-laws.\(^{54}\) The tertiary positions were drawn from the greater Qadadfa tribal community and it is at this level that, despite the importation of Syrian pilots, that the recruitment for the air force was conducted. It is clear, however, that the air force was entirely outside the benefits and privileges afforded to “elite” units. The pay given to the air force “paled in comparison to elite ground units like the vaunted 32nd Brigade...As a former Mirage F1 pilot based at Mitiga Air Base, who defected to Zintan early in the revolution, noted: “I have a master’s degree in aeronautics and am a Mirage pilot. Why should I make less than a truck driver in the Khamis Brigade?”\(^{55}\)

The government in Afghanistan during the Soviet occupation experienced similar difficulties in recruiting loyal pilots due to the rigors of the occupation.

“The pool of qualified pilot candidates from which Kabul can choose is limited. Most of the draft age men would prefer to fight the regime than join it, in our judgment. Many technologically competent and educated Afghans - better able to master flying skills than the majority of poorly educated Afghans - fled the country following the Soviet invasion.... The stringent physical examinations designed to measure an individual's tolerance to stressful flying conditions further reduces the number of eligible pilot candidates.”\(^{56}\)

\(^{51}\) Berman 2010 1, CIA 2018

\(^{52}\) Gaub 2013 232

\(^{53}\) Nassif 2015 634

\(^{54}\) Vandewalle 2008 74

\(^{55}\) Mueller 47

\(^{56}\) CIA-RDP90T00103R000600380001-3 5
When states are unable to fill vacancies due to the technological and physical constraints of the pilot corps, they have little to know ability to recruit based on ethnic or political factors. This thesis therefore contends that most attempts to stack the air force with political or ethnic elites are relatively unsuccessful as the recruitment of pilots and skilled personnel must reach beyond the fraction of a percent who are members of the true elite.

Human Characteristic #2

In societies with poor civil-military relations, and therefore fear coup d’état, there is an almost universal presence of foreign training for both pilots as well as skilled logistical personnel. This practice is due to the technological intensity of military flight schools, the high cost of such institutions, and the relatively small size of air forces in developing nations. This extensive foreign interaction leads to fears that these officers will be susceptible to foreign influence or will be unwilling to engage in combat against the nation who trained them. Particularly small or emerging air forces, for example Libya in the 1980s, may even decide to hire foreign pilots rather than train its own citizens. On the whole, this extensive interaction with foreign powers creates a latent fear of disloyalty regardless of the actual disposition of the officer corps.

Human Characteristic #3

The final human characteristic that gives the air force a relatively high propensity to launch a coup d’état is its innate resistance to purges or severe discipline for disloyalty. This final characteristic draws from the first two and contends that, due to their relatively rare skillset and extensive costs involved with training, any purge within the air force is far more costly than one of the ground forces. The technological intensity of the branch as a whole makes

57 Kamrava 2000 83
some skilled logistical workers and pilots simply irreplaceable in the short term. Therefore, a purge, or even the firing of a handful of officers, is a high cost endeavour both in financial resources and in combat effectiveness. In the case of Iran, a CIA intelligence report details that “air force readiness was harder hit by these purges than that of the Army because air force requirements for technical expertise are more critical.” Unwilling to incur such costs, states are forced to accept a much higher degree of “normal” disloyalty or dissatisfaction than in any other branch of the Armed Forces. Even following attempted coups, states are often unable to completely purge the air force and must retain or rehire skilled airmen to maintain any degree of combat effectiveness.

In sum, the human characteristics of the air force as a branch gives a solid foundation that explains the universal mistrust garnered by air forces in coup-proofed states. Air force officers are purge resistant, foreign trained, and impossible to draw solely from the innermost circle of political elites in society. This thesis contends that this combination of human factors makes it likely that the air force will have a relatively high propensity to launch coups when compared to the ground forces and elite units. As air forces are by far the smallest branch of any developing military, and are almost non-existent in much of the developing world, the total number of air force coup attempts remains relatively small and an inaccurate measure of their relative inclination to disloyalty. The continued and relatively frequent attempts by air forces to launch coup d’états, despite their nearly universal failure, demonstrates the extent to which the human characteristics of air forces lead to a high propensity as a branch to attempt coups.

58 CIA-RDP83B00232R000100120001-9 2
59 The only historical successful air force coup is the February 1963 coup d’état in Iraq. It is highly unlikely, due to the high profile nature of airpower, that air forces were involved in other successful coups in a covert manner. This is extremely low compared to the 48% success rate of overall coups from 1950-2010. (Powell and Thyne 2011 256)
This thesis has so far established a theoretical framework that identified a set of human and technological factors that present a latent coup threat. The following section will lay out the two plausible routes that an air force coup d’état might take and analyse how they draw upon the latent characteristics identified in the previous section. First, the air force can act independently of the other branches of the armed forces and attempt a decapitation coup. Secondly, the air force can ally with a ground force in the army, paramilitary, or elite units to overthrow the government with support from the air. This section will draw upon the innate human and technological characteristics to explore these two categories of air force coups.

The decapitation method of air force coup d’états draws heavily on the high firepower to personnel ratio in air forces as well as their ability to simply fly over most traditional coup-proofing forces. Coup attempts that follow this track include, among others, the 1969 coup attempt in Saudi Arabia, the 1972 coup attempt in Morocco, and the 1980 coup attempt in
Iran. These coup attempts generally involve a small number of officers and may not have any collaboration with ground forces. In a highly personalistic regime, the coup plotters can conclude that the death of the head of state will initiate such instability that there is a reasonable chance military will be forced to, or can be encouraged to, take control of the state. This enables a small group of air force officers to precipitate a coup regardless of the overall inclinations of the armed forces.

Air forces that do have support from a ground arm of the military adopt the second method of air force coups and provide air support to rebel ground forces. This, however, does not mean that they will forgo a decapitation strike on key leadership and communications centers. The initial stage of any coup is to quickly seize control over key figures and media facilities to promote confusion and prevent the regime from mobilizing to crush the rebellion.\(^{60}\) As media and telecommunications are relatively difficult to completely control, Luttwak proposes the objective should be monopolization of media through the silencing of all non-coup affiliated media sources through sabotage.\(^{61}\) He also calls for the control of major infrastructure leading into and out of the capital city.\(^{62}\) The air force, through precision strikes, is uniquely suited to carry out these missions in the first minutes of a coup attempt. However, the consolidation of power following a coup attempt involving both air and ground forces is more complex. Loyalist airstrips must be seized or disabled to maintain rebel air superiority and a balance must be maintained between seizing the capital and destroying it. Initial strikes on leadership targets must be followed by insertion of ground forces to ensure the death or capture of key figures in the regime. Aircraft must be tasked with enforcing a no fly zone to prevent the regime from airlifting loyal troops from rural bases or deploying forces to seize rebel airfields. However, the addition of even meager airpower can enable relatively small elite units to pose a significant threat to a regime. Conventional coup-

\(^{60}\) Luttwak 2016 130
\(^{61}\) Luttwak 2016 132
\(^{62}\) Luttwak 2016 137
proofing methods used to balance these elite units, commonly in the form of either large ideological militias or ground forces stationed in border zones, are potentially balanced through the application of airpower. If rebel pilots are willing to bomb loyalist positions, or loyalist pilots are willing to bomb advancing rebels, they have the potential to turn the tide of a coup d’état. The use of loyalist airpower to turn the tide of the 1972 coup attempt in El Salvador is a demonstration this potentially pivotal role the air force can play in the conduct or prevention of a traditional ground force centric coup d’état.63

Given the relatively high propensity to attempt coups and latent capacity of the air forces to attempt coups despite extensive coup-proofing measures, regimes have a logical basis to fear the air force. The intensity of this fear, however, is dependent on the unit of analysis. This thesis contends that the government as a whole has a relatively low fear of the air force. The government fears the instability generated by coup attempts, yet is more fearful of genuine threats to continuity of the regime itself. As air forces have an extremely low success rate in succeeding in coups, they present a low risk that can be assuaged through coup-proofing. However, leadership have a more acute fear of the air force that is very difficult to assuage despite extensive coup-proofing. While coup proofing methods can prevent rebellious ground forces from even reaching the capital, let alone striking at the leadership themselves, the air force has the potential to bypass loyal regime forces and threaten the lives of the leadership. Therefore, personalistic regimes are particularly vulnerable to air force coups as the death of a key leader or a very small group would be a potentially destabilizing loss to the regime.

The near universal practice of coup-proofing the air force in an attempt to assuage these elite fears results in a dramatic reduction in combat effectiveness and professionalism in the air force itself. This essay contends that the extensive coup-proofing in the air force, in

63 Montgomery 2018 64
addition to its limitation of air force capacity to attempt coups, creates a feedback loop that decreases morale and professionalism leading to increased propensity.\textsuperscript{64} This unintended side effect of coup-proofing is well established in the broader literature on coup d’états.\textsuperscript{65} Given the inherent difficulties associated with coup-proofing the air force, this thesis contends that extreme methods of air force coup achieve marginal decreases in technical capabilities while drastically increasing propensity.\textsuperscript{66} This feedback limits the ability of any state to completely eliminate the risk of air force disloyalty and entrenches lingering leadership fears.

Case Studies

Now that the thesis has established a framework through which to evaluate the role of the air force in the conduct of the coup d’état, it will now illustrate the utility of this framework through a series of case studies (Morocco, 1972; Iraq, 1963; Iran, 1980) to analyze its explanatory utility in evaluating aspects of civil-military relations specific to the role of the air force.

Case 1: Morocco 1972

An examination of the 1972 air force coup attempt in Morocco, and its aftermath, will demonstrate the applicability of this thesis’ theoretical framework. Following a brief history of the coup attempt this section will be an evaluation of the extent to which human and technical factors led to the implementation of specific coup-proofing methods used to constrain the Moroccan Air Force.

Civil-military relations in Morocco were tumultuous throughout the 1960s culminating in a palace coup in 1970 when soldiers attempted to seize the royal palace during a party hosted for foreign dignitaries. Historically, the monarchy relied on powerful families in the civil service (Maghzen and Shaifiran), commercial interests (Fassi) and traditionally military

\textsuperscript{64} See Figure **
\textsuperscript{65} Powel 2011 143, Gaub 2013 231, MacCoun, Kier, and Belkin 2006 651
\textsuperscript{66} See figure
oriented Berber families.\textsuperscript{67} This system was relatively stable and the military played little to no role in politics. However, by the 1960s the “rents” paid to these power bases in return for support for the monarchy had become concentrated within the economic and bureaucratic elites while the military was left out of these sources of income.\textsuperscript{68} Further economic and military reforms exacerbated this trend as the military, previously dominated by the Berber ethnic class, was being transformed along western lines with an influx of young technically trained Arab officers who were given command of the newest armor and air units. The King had, for decades, attempted to maintain the loyalty of the senior officers by preventing promotions within the army that would bring Arabs into the top ranks. In fact, prior to 1959 there were no promotions at all and by 1962 only thirty officers with ranks higher than captain.\textsuperscript{69} However, the King attempted to rectify these complaints made by the officer corps by increasing pay, giving out promotions, and bring, what had been a relatively professional military, “into the royal patronage network.”\textsuperscript{70} These reforms did little to modify the concerns of a senior officer corps surrounded by young Arab officers who appeared to be gaining the king’s favor and quickly demonstrated that they were “better qualified than their seniors for command over highly mechanized units.”\textsuperscript{71}

This foundation of distrust and brooding resentment boiled over in 1971 with a general palace coup involving five of the fourteen generals in the Moroccan armed forces. On 10, July 1971 1500 cadets from the NCO school in Ahermoumou seized control of the royal palace during a state function. They were under the command of Brig. Gen. Mohamed Medbouh, the commander of the palace guard, but underestimated the authority of the King to command the loyalty of the rank and file.\textsuperscript{72} After a few hours, Medbouh was shot and the cadets switched

\textsuperscript{67} Braun 1978 63  
\textsuperscript{68} Ibid 65  
\textsuperscript{69} Braun 1978 66  
\textsuperscript{70} Sorenson 2007 108  
\textsuperscript{71} Braun 1978 67  
\textsuperscript{72} CIA-RDP01-00707R000200080031-3 2
their support to the monarch. General Oufkir, Minister of the Interior, and Gen Ben Omar, the Minister of Minister of Posts, Telephone, and Telegraph, were given authority by the king to restore order and purge the armed forces. The resulting purge resulted in a decapitation of the senior Berber leadership in the military and the deaths of nine of the top sixteen officers in the armed forces. The majority of the cadets involved in the coup were released and evidence presented at their trial supported their claims that “they were misled and duped into thinking that they were going to the palace to protect the king.”

The underlying tensions, the forces involved, and the measures taken to purge/secure the armed forces following the 10th of July coup attempt are, on the whole, typical of a coup plot in a highly personalist regime. Senior officers, upset about the distribution of power and wealth rents within the elite, lashed out but their “attempt to overthrow the monarchy represented a gross underestimation of the king's ability to rally instantaneous support for the established order.”

The 1972 Moroccan Coup Attempt

The second coup in 1972, however, defies most models of the coup d’État as it was conducted solely by the air force and targeted the King himself as the lynchpin of the regime itself. Following the 1971 coup, and the resulting purge of Berber officers at the highest ranks of the armed forces, the relative professionalism that defined the role of the Moroccan armed forces in the first half of the 20th century had ended. Authority to reorganize and completely reshape the armed forces was given to General Oufkir as the new Minister of Defense and he proceeded to craft a new army “designed to reduce the possibility of future uprisings.” Yet, once power had been consolidated, Oufkir himself launched a coup attempt. While flying back from a trip to France the king’s 747 was attacked by F-5 fighter aircraft from the

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73 Ibid 2
74 Ibid 3
75 Braun 1978 72
76 CIA-RDP01-00707R000200080031-3 3
Moroccan air base at Kenitra.\textsuperscript{77} His pilot managed to land the plane and, with the king’s survival, the plot quickly fell apart.\textsuperscript{78} This next section will evaluate the applicability of the logical framework outlined in this thesis to the 1972 air force coup.

First, in terms of technical characteristics of airpower, the 1972 coup attempt drew heavily on all three factors in the framework. The high firepower to personnel ratio made the coup attempt viable despite its incredibly small size. Contemporary declassified documents show the coup actually involved only “14 or 15 officers”\textsuperscript{79} and 3 to 4 jet aircraft.\textsuperscript{80} Despite its incredibly small size, the attempt drew upon the high mobility inherent in airpower to strafe the airport at Rabat as well as launch an air attack on the Royal Palace.\textsuperscript{81} Ground forces would not have been able to penetrate royal defenses and strike either of these vulnerable targets let alone both. Finally, traditional coup-proofing methods were ineffective against this airborne threat. The royal guard in Rabat consists of a thousand infantry with no anti-air capabilities. Additionally, the remaining fighters at the Kenitra air base, representing nearly all anti air capabilities in the Moroccan armed forces, were either unable or unwilling to respond quickly enough to intervene. A rebel force of scarcely more than a dozen disloyal troops were able to strike at the heart of a personalist monarchy and came within a hair's breadth of success. “The king has survived not because of any "strong position" but because of some atrociously bad gunnery by the Moroccan Air Force....Available evidence indicates that the would-be regicides aimed at eliminating Hassan and getting rid of the corrupt and wasteful entourage that surrounds him. The eventual demise of the monarchy itself apparently was intended.”\textsuperscript{82}

\textsuperscript{77} Ibid 3, and Luttwak 2016 xxi,
\textsuperscript{78} Ibix xxi
\textsuperscript{79} CIA-RDP01-00707R000200080031-3 3
\textsuperscript{80} Ibid
\textsuperscript{81} Ibid
\textsuperscript{82} CIA-RDP79R00967A001500040009-3
The tracking of the role of human factors in motivating actions of coup plotters is more difficult to discern. However, the three identified characteristics of air forces did appear to play a role in the 1972 coup attempt. The innate resistance of the air force to purges and political discipline is evident in the lack of significant organisational changes to its structure following the 1971 coup attempt. The other branches were heavily reorganized with “infantry and armored brigades hav(ing) been disbanded and their former organic elements deployed throughout the country”. Yet the air force remained highly concentrated with all of its modern fighter aircraft concentrated under the command of a single officer at the Kenitra airbase. In addition, following the coup, the air force experienced a precipitous drop in combat effectiveness as a purge of 200 officers and men resulted in the grounding of over 75% of Moroccan combat aircraft. By September of 1972, every single officer and soldier stationed at the Kenitra air base would be forced to stand trial. The innate resistance of the air force as a branch to purges does not mean that they cannot occur, but that government will be loath to enact them due to their extreme cost. the air force was left largely untouched following the 1971 coup attempt and only purged when, according to CIA national intelligence estimates, “The question of when - not if- the next attempt on King Hassan’s life will be made is unanswerable......further blows at the King are certain; there is no way of knowing when or where they will come.”

The other two human characteristics present less strongly in the Moroccan case. Although the Moroccan Air Force was trained and equipped by the United States and France, this did not contribute significantly to impressions of their loyalty to the monarchy. Additionally, while the Berber class was heavily represented in the armed forces prior to the 1971 coup attempt, their influence greatly reduced by the purges following the attempt. The ethnic divide in the Moroccan military was not purposeful ethnic stacking on the part of King

83 CIA-RDP01-00707R000200080031-3 7
84 Ibid
85 CIA-RDP79R00967A001500040009-3 6
Hassan, but a combination of tribal and colonial structures that minimized the role of the Arab population in the armed forces. In fact, in the aftermath of the coup attempt, rather than ethnically stack the military, efforts were made to conscript Arab citizens to form a representative military. As ethnic stacking was not attempted in Morocco, the air force’s relative resistance to this form of coup-proofing is not applicable.

Finally, in the Moroccan case there is clear evidence supporting the feedback loop relating the imposition of coup-proofing methods in the air force and their propensity to attempt a coup d’état. This relationship is well established in the literature\textsuperscript{86} yet its specific attribution as one of the causes of the 1972 coup attempt is significant. The imposition of a military security official, rather than an air force officer, as commander of the air force is referenced by the presidential daily brief, the day after the attempt, as the source of “ill feelings among air force officers who had hoped that the command would be awarded within the service.”\textsuperscript{87}

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\textsuperscript{86} Hicham 2014 40, Gaub 2013 230, MacCoun, Kier, and Belkin 2006 651

\textsuperscript{87} DOC_0005993469

In sum, the air force attempt to carry out a decapitation coup in Morocco drew heavily upon technological characteristics within this thesis’ logical framework as well as one of the three human characteristics. In a time of intense distrust of the armed forces, and the wholesale reorganization of the Moroccan ground forces, the air force was able to come close to decapitating the regime. As a contemporary intelligence assessment details, the failure of the coup does not speak to the strength of the regime or the weakness of the coup plot but merely random chance and bad aim. \footnote{\citenum{cia-rdp01-00707r000200080031-3-1}}

Case #2 Iraq 1963

Civil-military relations in Iraq following the 1958 coup that overthrew the Iraqi monarchy can perhaps be best described as outright hostile. In the fifteen years following the 1958 coup, there were “four distinct changes in regime, ten coups d’
état or attempted coups, and at least 14 cabinets with an average longevity of less than a year.”\footnote{\citenum{cia-rdp80m01048a000300330002-3}} Not until the rise of Saddam Hussein Tikriti, and his more than three decades of dictatorship, did a civilian government maintain absolute control over the Iraqi military. This section will give a brief overview of the role of the air force in the 1963 Ba’athist coup before turning to long term trends and controls instituted by the regime to ensure loyal control over Iraqi airpower. As the coup was successful, and carried out by the Ba’ath party that would eventually gain lasting power in 1968, this case considers the case of limitations imposed on a, nominally, loyal air force in coup-proofed military.

The 1963 Iraqi Coup

The reigning regime led by Abdalkarim Qasim was not unprepared for a coup within the armed forces and the regime “turned the Ministry of Defence compound... into a fortified camp.”\footnote{\citenum{sorby-2008-160}} In addition, Qasim’s nineteenth brigade, 2000 infantry equipped with heavy weapons and anti-aircraft guns, and his brother-in-law’s Fifth Division, complete with infantry
tanks and Mig-19 fighter bombers, were stationned in and around the capital to protect the heart of the regime.\textsuperscript{91} In fact, the aerial contingent at the ar-Rashid base was staffed specifically with communist pilots and crews to ensure their loyalty to the regime and equipped with the newest Mig-19 fighters available to the Iraqi armed forces.\textsuperscript{92} It logical to construe that, between the inclusion of aircraft in the coup-proofing forces at ar-Rashid and the contingent of anti aircraft weapons at the Ministry of Defense, airpower was seen as a fundamental part of any coup attempt against the Qasim regime. Arrayed against these forces were relatively small number of Ba’ath military officers which had just suffered a spate of forced retirements in January and February of 1963.\textsuperscript{93} These purges of early 1963 came in response to the Ba’ath party’s support for a popular uprising in response to rising fuel prices during a popular revolt in March of 1961. However, the movement was quickly crushed by military and police forces. The period between this defeat and the successful coup in early 1963 was marked with numerous coup plots which were quickly detected and purged by Qasim’s intelligence services.\textsuperscript{94}

The coup of 1963 began in the early morning of February 8th 1963 with the assassination of Brigadier General Jalal al-Aqwati, the communist commander of the air force and the subsequent aerial assault on the airstrip at ar-Rashid and its contingent of Mig-19s. Once air superiority over Baghdad was achieved, either by cowing or disabling the aircraft at ar-Rashid, rebel aircraft began a “heavy attack by air”\textsuperscript{95} on the Ministry of Defence. Tanks were dispatched to the radio broadcasting station in Abu-Ghurayb as well as the radio station in the Capital to disable government communications and “quickly announced the coup and the death of Qassim.”\textsuperscript{96} Qassim was, however, not dead and gathered

\textsuperscript{91} Dann 1967 367  
\textsuperscript{92} Sorby 2008 161 and 164  
\textsuperscript{93} Ibid 160  
\textsuperscript{94} Ibid 158  
\textsuperscript{95} Ibid 162  
\textsuperscript{96} Be’eri 1970 194
crowds of communist supporters as he barricaded himself in the Ministry of Defense. His calls for air support from the ninth squadron’s Mig 19s failed to reach the airbase due to interception at the ar-Rashid telephone exchange and, had they managed to get through, it is unclear as to whether there were any loyal aircraft capable of takeoff following the airstrikes of that morning. Rebel armor and paratroopers surrounded the Ministry of Defense and began an assault that lasted until past noon the following day covered by a constant rain of rockets and bombs from the rebel aircraft. “Ministry buildings suffered considerable damage... (and) most-important for the success of the operation, both telephone and radio communications were put out of action.” In total, “eighteen planes made 44 sorties and shot 72 missiles at the compound” during the first day of the assault. By the second day at noon the remainder of the army, as well as many of communists on the streets and Qassim’s elite 19th brigade, defected to the side of the rebels or retired to their homes and barracks. Qassim and his top leadership were captured and a nation-wide purge of communists, suspected and actual, began. Despite its extensive practice of coup-proofing, the Qassim regime fell to a “combined military operation” in which the “al-Habbaniya military camp and especially its air base played a vital role in the success of the coup because from there were realized the repeated air attacks on important targets.”

The Ba’athist regime established in the February coup suffered a coup attempt of their own on the 13th of November 1963 from within the Ba’athist party itself. The leader of the coup, Mundhir al-Wandawi, launched the attempt by seizing aircraft and bombing the ar-Rashid air base and strafing the presidential palace. Although the coup fizzled out, five
days later, the general staff launched a determined coup involving airstrikes on National
Guard headquarters leading to the downfall of the first Iraqi Ba’athist regime.\textsuperscript{105} Air power
had played a key role in three consecutive coups in Iraq in just a single year.

The Iraqi coups drew upon a wholly different combination of the technological and
human characteristics inherent to the air force than the previous case of Morocco. In terms of
technological factors, both coups involved a heavy reliance on the mobility and firepower of
airpower to neutralize government ground forces. However, the rebel coalition of ground and
air forces was relatively large compared to the Moroccan coup as it involved hundreds to
thousands rather than dozens of soldiers. Thus, despite the fact that airpower played a vital
role in tipping the balance, its ability to lower the minimum viable coup size was not
demonstrated in the Iraqi coup. Additionally, unlike the Moroccan coup, the Iraqi elite forces
were prepared for an air force coup d’état. The elite units at the Ministry of Defense were
equipped with “18 antitank and anti-aircraft guns”\textsuperscript{106} and a small segment of the air force at
the ar-Rashid Air Base was politically stacked and equipped with superior weaponry.
Nonetheless, these forces were unable to mount any significant resistance against rebel
aircraft reflecting the offence superior state of aircraft/air defense technology in Iraq in the
1960s. This balance is maintained in most developing states to the modern day with the
possible exception of Egypt which has a relatively advanced air defense network.

Turning to human factors, the first characteristic of air forces in their innate resistance
to stacking along ethnic or political lines is present in the Iraqi case. The ability of the Qassim
regime to stack elite units of the air force was demonstrated in the communist leadership of
the air force as well as the entire air contingent at the ar-Rashid base. However, the inability
of the Qassim regime to expand this ethnic stacking to the entirety of the air force allowed
rebel pilots to use the high mobility and firepower of the relatively inferior rebel aircraft to

\textsuperscript{105} Ibid
\textsuperscript{106} Be’eri 1970 193
disable the loyal air forces in the first minutes of the coup. However, the foreign training of the Iraqi Air Force and the resistance of air forces to discipline played little, if any, role in the 1963 Ba’athist coup.

In sum, the 1963 coup in Iraq ably combined airpower with armored ground forces to launch a successful coup d’état against an early form of coup-proofed government. Command and control was centralized, intelligence agencies heavily monitored the military, and institutions of government were heavily fortified against assault. Key leadership in the 5th division were politically stacked with communists as well as family members of Qassim himself. Finally, large numbers of communists within Baghdad itself were willing to flood the streets and arm themselves to prevent a Ba’athist coup. Yet each of these regime bullworks of support burst under the combined pressure of armor and air assault.

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Iran 1980

This section will begin by briefly recounting the events of the Iranian revolution of 1978, coup-proofing strategies employed by the Shah, and the restructuring of the armed

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107 Sorby 2008 171
forces following the rise of the clerical regime under Ayatollah Khomeini. It will then turn to an overview of the Iranian Air Force coup attempt of 1980 and analyse the applicability of the six human and technological characteristics to the Iranian case.

The Iranian revolution of 1978-79 was not a coup or military revolt like those in neighboring Iraq or throughout the middle east. Rather than an internal revolt by elites, the Iranian revolution was a popular uprising organized by a network of Shia clerics and mosques that orchestrated “widespread popular resistance to the state.”¹⁰⁸ Marches organized around the Islamic calendar and, when fired upon, utilized the funeral processions of the martyrs as focal points of the struggle.¹⁰⁹ The Shah, loath to rely solely on military force to quell the protests, offered political reforms in a “carrot-and-stick policy.”¹¹⁰ However, the Shah’s military and security apparatus was deemed capable of maintaining control with DIA and CIA analyses concurring that the protests posed little threat the stability of the regime.¹¹¹ Yet, over time, the lower ranks of the military began to desert rather than continue to fire on protesters and by winter 1978 “desertions had apparently reached 1,000 per day.”¹¹² This was supported by the clerical leadership who provided “civilian clothing and travel money”¹¹³ to soldiers willing to defect and return home. With growing protests and uncertain messages from Washington regarding support for a bloody repression, the Shah abdicated and the civilian government under Bakhtiar “was losing control and... the army was rapidly disintegrating.”¹¹⁴ Indecisive action on the part of the shah had allowed the protests to reach a critical mass and become an existential threat to the regime. coup-proofing had succeeded in preventing the military from posing a threat, yet crippled their ability to successfully repress a genuinely popular uprising from the population. The new Shia regime under Ayatollah

¹⁰⁸ Skocpol 1982 274
¹⁰⁹ Ibid
¹¹⁰ Moens 1991 217
¹¹¹ Ibid
¹¹² McLauchlin 2010 344
¹¹³ Ibid
¹¹⁴ Moens 230
Khamenei would experience the opposite problem; genuine support from the lower classes but extreme disloyalty and unrest in the upper echelons of society and the armed forces.

Once the clerical regime had established its control over the new government, it immediately conducted purges throughout the military. “The Iranian military... (was) in a state of disarray. The Army, which had almost 300,000 personnel under the Shah, now [as of September 1980] numbers only about 150,000 men.”115 The other branches experienced similar reductions in personnel and “professional military men are appalled by the clerics’ disdain for their profession.”116 This resentment and anger reached a critical point in the July 10th plot in which planes from the Nojeh air base would rapidly strike critical regime targets, including “Ayatollah Khomeini's residence, the presidential palace, the seat of government, and several Revolutionary Guards barracks”117, before rebel ground forces would seize the capital. Other planes were dispatched to bomb air-force bases to prevent the regime from launching aircraft to contest rebel air dominance.118 Commandos were designated to seize communications facilities and ensure that Khomeini had not survived the initial assault from three heavily armed fighter-bombers.119 Finally, police and irregular civilian forces from the Southern parts of Tehran would march on the center of the city to provide the appearance of a popular uprising and give legitimacy to the coup.120

There is some disagreement in sources regarding how close the plot came to fruition. A CIA assessment of the plot states that “On 10 July Bani-Sadr announced that a coup had been discovered at the Shahroki Airbase near Hamadan where about a half dozen officers were shot while preparing to take off.”121 However, a Rand report from 1987 indicates that the regime had knowledge of the coup as early as the 8th of July, two days before the coup.

115 CIA-RDP81B00401R000500030005-2 1
116 Ibid
117 Razoux 2015 5
118 Gasiorowski 2002 653
119 Ibid
120 Ibid
121 CIA-RDP81B00401R000500030005-2 2
attempt, and states that “officials in Tehran have admitted that they were informed about the plot several weeks in advance and that they closely followed the course of its preparation, ready to crush it at the appropriate moment.”

A detailed third accounting of the plot by Mark Gasiorowski in 2002 is achieved through interviews with “five key leaders of the plot and with six other knowledgeable figures.”

Two competing narratives quickly emerge between the government account of the coup and that of the surviving plotters. Where the Rand report and the government account claim the government had extensive prior knowledge of the plot, this is challenged by Gasiorowski and his sources who participated in the coup. They describe a complex “compartmentalized ‘cell’ structure [that] protected the identities of many participants and enabled others to go into hiding before they could be arrested.”

While the arrest of the contingent of pilots and officers at the Nuzhih air base proved fatal to the coup, the escape of “most of the 700-750 military participants and 300-400 civilian participants were never arrested.” It is implausible that, had the Iranian government had days or weeks of notice, not a single of the coup participants at the “Tehran base J, the Isfahan and Mashad army bases, the police, or the navy were arrested.”

At a minimum, the fact that commando teams stationed in Tehran spent the night in safe houses and then, not having received the signal to attack, dispersed unmolested indicates that the government was unaware of the extent of the plot. Regardless of the details, all available sources indicate that the July 10th plot was the most serious attempt by the military to reinstitute the rule of the Shah in the pre-Iran Iraq war era.

As this coup attempt was unsuccessful, the following analysis of the coup plot must then be based on the planned actions rather than the rather limited activities actually carried out.

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122 Schahgaldian 1987 23
123 Gasiorowski 2002 646
124 Gasiorowski 2002 656
125 Ibid 655
126 Ibid
127 Gasiorowski 657
out by the coup plotters. In terms of technological characteristics, the initial decapitation strikes planned for key clerical regime targets combine the opening salvos of both the Iraqi coup of 1963 as well as the decapitation coup attempt in Morocco in 1972. The personalist Iranian clerical regime made them structurally susceptible to a decapitation coup, while the revolutionary guard coup-proofing units required the coup plot to follow up decapitation strikes with tactical airstrikes on regime soldiers. This combination relied heavily on the high mobility of the air force as well as their high firepower to personnel ratio. It also counted on the ability of the air force to disrupt or destroy revolutionary guard units while coup units were converging from outlying bases into the capital itself.

Turning to human factors, no attempts were made to stack the Iranian Air Force prior to July plot and the air force was purged, despite disastrous effects on effectiveness, at similar rates to the other branches. The role of foreign training in encouraging or precipitating the coup attempt is also unknown. From the conduct of the coup plot itself, it is also difficult to assess the role of human factors as the coup was neither fully implemented nor successful in establishing a government. The evaluation of these key characteristics will be accomplished in the following section that back-traces leadership fears through the specific coup-proofing methods implemented during the aftermath of the attempt.

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The coups described in these three cases give specific insights into the applicability of this thesis’ framework regarding regime fears of the air force. However, the attempts themselves are insufficient to explain the reliance of coup plotters on the human characteristics identified in the framework. This following section examines variations in coup-proofing methods following coup attempts to more thoroughly investigate the human characteristics relied upon in those attempts. This section will analyze coup-proofing methods instituted by the Moroccan, Iraqi, and Iranian Air Forces in response to their experience with air force involvement in coup attempts.

**Moroccan Air Force Coup-Proofing measures**

Following the 1972 air force decapitation style coup attempt on the royal 747, the monarchy instituted strict controls with devastating effects on combat effectiveness. The aftermath of the coup attempts resulted in a reorganization of the armed forces and the elimination of the both the occupant and the role of the Minister of Defense. Since 1972 the Moroccan armed forces has been accountable directly to the King himself.  

The immediate reaction to the coup attempt was the purge of “over 200 airmen” that grounded three-quarters of Moroccan combat aircraft. Training programs in the 1970s produced a mere ten marginally qualified pilots with “basic flight and technical skills” per annum. Thus, the effects of the purge were felt, particularly in the upper ranks of the air force, for many years following the coup with drastic impacts on combat effectiveness. One example of the increased restrictions that accompanied the purge, is the direct control of 1972-1980 all air

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128 CIA-RDP01-00707R0002000080031-3 3
129 CIA-RDP01-00707R0002000080031-3 11
130 Ibid 13
forces in Morocco by Rabat rather than regional commanders which greatly decreased their effectiveness against the Polisario insurgency in Western Sahara.\textsuperscript{131} Demonstrating the natural resistance of air forces to discipline and purges, when the Polisario won a string of victories in 1980 these controls over the air force were lifted to boost battlefield effectiveness. General Dlimi was placed in direct command of air and land forces in the Western Saharah conflict and centralized control was relaxed resulting in “more effective Moroccan initiatives....[and] by late 1980 Morocco was in the best position militarily that it had been in a long time.”\textsuperscript{132}

Other methods of immediate control included the distribution of patronage among the military as well as the conscription of Arab citizens into the armed forces to dilute the influence of the Berber officer corps.\textsuperscript{133} Yet, the impacts of the the monarchy’s fear of the air force extend far beyond the short to medium term personnel difficulties. “The air force came to be viewed with suspicion and was continually deprived of major funds for decades.”\textsuperscript{134} The expenditure of $240 million to construct an integrated air defense center at Sale represents an attempt at modernization limited by tight controls that negate any significant gains in combat effectiveness.

“The center is a paradox. It is a very expensive and modern facility that is being used at much less than its full capability... Morocco’s command and control network functions under definite limitations. For instance, the only time the command center could really operate as a command center would be if Kabbej or King Hassan were on the scene ready to conduct operations. Independent action by the officers routinely running the Sale facility is unlikely. Furthermore, the controllers at the center are prohibited from communicating directly with fighter bases - they speak only to airborne aircraft. This restriction undoubtedly reflects King Hassan’s lingering fear of what an effective air defense system could accomplish if guided by a potential usurper.”\textsuperscript{135}

\textsuperscript{131} Dean 1986 45
\textsuperscript{132} Ibid 45-56
\textsuperscript{133} Sorenson 2007 108
\textsuperscript{134} Stratfor 2014
\textsuperscript{135} Dean 1986 58
It was not until 1999 that significant expenditures were made to modernize the Moroccan air fleet through upgrades to existing F-5 and Mirage F1 aircraft as well as the purchase of new fighter jets.\textsuperscript{136}

“The king appears to understand that one part of his bargain with the FAR [Forces Armees Royales] is to keep them equipped with modern arms. The Moroccan Air Force is getting two significant modernization packages, one an upgrade of its Mirage F1s, along with the projected purchase of the ultra-modern French “Rafale” fighter.... The question arises as to why Morocco needs such advanced fighters.”\textsuperscript{137}

Although the Moroccan Air Force eventually chose to purchase F-16s from the United States over the French Rafale, the expenditure of billions of dollars to increase professionalism and bolster military as an apolitical organ through arms purchases demonstrates the to which the monarchy views the air force as a potential threat.

“Mohamed VI has not released the controls placed on the military by his father... there is still no ministry of national defense or general staff, and the military does not have a formal role in economic development or nation-building.”\textsuperscript{138}

\textbf{Iraqi Air Force Coup-Proofing measures}

In the decades following the Iraqi coup of 1963, there remained intrusive and expensive coup-proofing measures directed squarely at ensuring the loyalty of the Iraqi Air Force to the Ba’athist regime under Saddam.\textsuperscript{139} Principle coup-proofing measures in the Iraqi Air Force were the centralization of command and control and tight political controls over air combat operations.\textsuperscript{140} Political controls include strict limitations on the personal autonomy of pilots who “follow flight profiles that prevent them from accomplishing their mission rather

\textsuperscript{136} Stratfor 2014
\textsuperscript{137} Sorenson 2007 108
\textsuperscript{138} Ibid 109
\textsuperscript{139} Al-Marashi and Salama 2009 160
\textsuperscript{140} Kupersmith 1993 4
CIA-RDP88T00096R000700910001-5 10
than deviate from them and face punishment on their return.” Leadership are not chosen for their skill but their willingness to defer to “the regime’s handling of air operations.”

Fears of foreign training and influence are mitigated through the use of a wide array of domestic and foreign trainers from “the Soviet Union, France, India, Pakistan, and Bangladesh.” This results in poor quality training due to differing flight standards between the schools, the lack of Arabic fluent instructors, and no connection between flight school tactics and those ordered to be performed in combat squadrons. In addition, once the pilots returned to Iraq they were kept segregated to prevent the spread of undesirable ideologies.

In particular, the dangers of French flight schools which “encouraged pilot initiative” deemed dangerous to the regime. Finally, senior officers and pilots are given large sums of cash and land in return for their loyalty despite poor performance on the battlefield in the Iran-Iraq war.

Utilizing a variety of foreign trainers minimizes the influence of any one state, yet has significant negative impacts on combat effectiveness. Similarly, the risk posed by the firepower to personnel ratio of an air force is managed through the strict oversight, political training, and lack of personal autonomy given to individual pilots. While effective in minimizing the individual threat of any one aircraft “these methods often lead to poor results” and “many Iraqi pilots use these controls as an excuse for not doing their job properly.” This makes even these mild restrictions highly costly in terms of combat effectiveness. They were also unable to prevent repeated coup attempts from within the air force. “In the spring of 1982, the entire air force was grounded for ‘plots against the regime.’

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141 CIA-RDP88T00096R000700910001-5 10
142 Ibid 12
143 Ibid 10
144 Ibid 10
145 Kupersmith 1993 11
146 Kupersmith 1993 11
147 Ibid 10
148 CIA-RDP88T00096R000700910001-5 11
149 Ibid 11
In September of 1983, the senior leadership of the air force was summarily shot for an attempted coup. The Iraqi Air Force was finally dispersed across the country, kept far from the capital, and large aircraft formations were prohibited from flying with armaments to minimize their risk to the regime. By the mid 1980s, the “Iraqi Air Force was ‘organized and deployed to prevent its use in a coup. That is, it was fragmented and enmeshed in security procedures that limited its contributions to the war effort.” Once the effectiveness of the air force in a coup attempt was proven by the Ba’athists, themselves, the Iraqi Air Force would remain for decades “the most rebellious of Hussein’s military services.”

Iranian Air Force Coup-Proofing measures

Due to its rapid failure, any analysis of the Iranian coup attempt of 1980 would be incomplete without a detailed account of the aftermath and imposition of coup-proofing measures imposed to prevent a repeat of the July 10th plot. In the days following the attempt, the Iranian Air Force was grounded, 144 accused participants were summarily executed, and an attempt was made to assassinate the former Prime Minister of Iran, Shapour Bakhtiar, in Paris. It appears that there were plans for further purges and 2–4,000 members of the armed forces had been dismissed when the Iran-Iraq war broke out in September 1980. Of the upper echelons of the air force, as many as 85 percent of full colonels and generals were retired, jailed, exiled, or executed with disastrous effects on combat effectiveness. Komitehs, or committees of low ranking air force personnel, were empowered to select officers and even make command decisions through voting.

150 Kupersmith 1993 3
151 Westenhoff 1997 44
152 ibid
153 Kupersmith 1993 6
154 Gasioroski 2002 657
155 Ibid
156 CIA-RDP83B00232R000100120001-9 2
157 CIA-RDP83B00232R000100120001-9 2
However, these coup-proofing measures proved so detrimental to operations that, at the start of the Iran-Iraq war, many “purged professionals and retirees returned to active duty, most apparently motivated by patriotism.”\textsuperscript{158} This decision to reinstate purged officers speaks directly to the resistance of the air force to purges due to the, in the short term, irreplaceable skillset they represent. The Army and Navy was placed under strict clerical control prior to 1980, yet the same levels of control were not established in the air force until April 1982.\textsuperscript{159}

Additionally, CIA intelligence assessments from 1984 concluded that, despite the imposition of these controls in 1982, the “clerical regime distrusts the air force more than the Army or Navy, in part because it was the Shah’s favorite service and because most pilots are well educated, US-trained, and have middle- or upper-class backgrounds.”\textsuperscript{160} The regime was fundamentally unable to recruit from its base of support in clerics and rural segments of the population due to the technological intensity of occupations in the air force.\textsuperscript{161} Foreign training was seen as crippling to the ability of the regime to trust the loyalty of pilots if ordered to engage with US forces and “the air force ha[d] carefully selected four to six politically reliable pilots to fly against US forces, suggesting that there are few professionally trained pilots who can be trusted in a clash with US forces.\textsuperscript{162}

Given the limited success of other methods of political controls, air force officers were given land, cash, fuel, and low-cost housing to buy their loyalty.\textsuperscript{163} By 1984, the majority of scarce consumer goods available in Iran were diverted to the air force rather than the elite Revolutionary Guard.\textsuperscript{164} Yet, despite these efforts, most pilots oppose the regime and key logistical personnel were “retained against their will because they cannot be replaced.”\textsuperscript{165}
This has resulted in poor performance as well as acts of sabotage and extensive damage to aircraft.\footnote{Ibid 7} Above and beyond these acts of disloyalty, pilots allegedly continued in their repeated attempts to “bomb Ayatollah Khomeini’s home”\footnote{Ibid 10} in June 1981 and May 1983.

Coup-proofing in the Iranian Air Force was extensive and minimized the threat of air force supported coups at an incredible cost in battlefield effectiveness. In the midst of a war with Iraq, “the Iranian Air Force’s reduced combat capability, in our judgment, has been a key factor in allowing the Iraqis to regain the initiative in the war. The air force is incapable of preventing Iraqi attacks on ships or population centers.”\footnote{Ibid 10} Yet despite the ability of these measures to limit the technological threats posed by a disloyal air force, the Iranian case additionally demonstrates the impact of the harder to quantify human characteristics inherent to the air force. The Iranian Air Force was highly resistant to purges and political controls when compared to the Army and Navy, while the the clerical regime was unable to stack the officer corps with members of the clerical elite\footnote{CIA-RDP81B00401R000500030005-2 1}. Finally, the role of US-training was directly referenced by contemporary intelligence assessments as a key driver behind the clerical regimes distrust of the air force more than the other branches of the Iranian armed forces.\footnote{Ibid iv} This section, and its detailed analysis of long term coup-proofing trends, has managed to fill in a number of the theoretical gaps left by the initial analysis of the coup attempts themselves. Follow up coup attempts, despite repeated purges, demonstrate the resistance of the Iraqi and Iranian Air Force’s to political discipline. Additionally, modifications or controls on foreign training of pilots indicate support for the second human characteristic in this paper’s framework. Finally, long term difficulties in ensuring pilot loyalty in all three cases demonstrate the inability to employ the most common, and possibly the most effective, form of coup-proofing: ethnic, class, or religious stacking.

\footnote{Ibid 7} \footnote{CIA-RDP85T00314R000300020001-7} \footnote{Ibid 10} \footnote{CIA-RDP81B00401R000500030005-2 1} \footnote{Ibid iv}
Conclusion

The first contention of this thesis, that air forces do play a role in the conduct of a coup d’état, has been demonstrated by the key role of the air force in all three of the case studies. The implicit, and sometimes explicit, assumption in the literature is that air force involvement in a coup is “a rather extreme way to play the game.” Yet, due to extensive coup-proofing in the late 20th century, most nations have effectively pre-empted the “easy” methods through which the military is accustomed to seizing power. Ground forces are disbursed far from the capital, countered by regime elite units, and overseen by extensive and powerful intelligence organizations. Coups, once extremely common in Latin America and the MENA region, are a relative rarity. Yet, Turkish air force coup attempt of 2016 led to Foreign Policy running an article entitled “Coup thoughts and questions: Has an air force officer ever led a successful one?” For the first time in half a century, the literature is questioning its offhand dismissal of air forces and their role in the conduct of the coup d’état.

The three cases used in this thesis demonstrate the size of the theoretical gulf between the existing literature and the reality of leadership fears of their air forces. Yet, not only did these states fear their air force, in direct contradiction to the advice of the theoretical literature, they uniformly feared their air force above the other branches of the armed forces. In two of the three cases, Iraq and Iran, their air forces continued to attempt coups despite their failure, repeated purges, and the imposition extreme political controls. In Iran, there were three air force coup attempts/plots between 1980 and 1983 while Iraq experienced three air force coups in 1963 alone in addition to others in 1955 and 1976. These are not an isolated trend only present in the three cases used as cases in this thesis. Other examples in the Middle east include plots/Attempts in Saudi Arabia (1969, 1972, and 1977), Afghanistan (1990),

171 Luttwak 2016 65
172 Ricks 2016 1
173 Kechichian 2001 103-104
174 Reuters 1990 A3
and Turkey (2016)\textsuperscript{175}. Cases of air force involvement in coups in other regions include coups in El Salvador (1944),\textsuperscript{176} Guatemala (1954\textsuperscript{177} and 1989\textsuperscript{178}), Thailand (1951),\textsuperscript{179} Vietnam (1975),\textsuperscript{180} and Argentina (1955\textsuperscript{181}, 1963\textsuperscript{182}, 1976\textsuperscript{183}). These examples are not intended by any means to constitute an exhaustive listing of all air force coups, but to demonstrate the temporal and geographic variation present in air force coups.\textsuperscript{184}

Yet, despite the evidence to the contrary, the literature’s dismissal of air forces was based on a bias in the civil-military relations literature itself. Their dismissal is fundamentally rooted in the almost universal failure of air force coup attempts. However, by considering the ability of the air force to participate in the conduct of a coup in a single dimension, success and failure, the literature misses the vital distinction between capacity to attempt a coup, propensity to attempt a coup, and capacity to succeed in their endeavour. This tripart analysis is then utilized to examine the innate technological and human characteristics inherent to the air force as a branch of the Armed Forces. It is then utilized to construct a plausible theoretical framework that evaluates the coup risks posed by an air force.

The framework laid out in this work is not limited by any notion of cultural factors that would limit its applicability to regions outside of MENA. Instead, this work has focused on structural characteristics fundamentally inherent to the air force itself rendering the framework universally applicable. Each of the six characteristics presented in the framework was tracked through each of the cases and assessed in light of both the coup attempt itself and the specific nature of coup-proofing measures enacted in the aftermath. The specific

\textsuperscript{175} Stein 2016
\textsuperscript{176} Scheina 2003, Zunes 2010
\textsuperscript{177} Holland 2005 56-64
\textsuperscript{178} Reuters 1989
\textsuperscript{179} CIA-RDP91T01172R000300290021-2
\textsuperscript{180} Browne 1975 A1
\textsuperscript{181} Goldwert 1972 129
\textsuperscript{182} Potash 1996 96
\textsuperscript{183} Pakistan Horizon 1976 110-111
\textsuperscript{184} The absence of coups in sub-saharan Africa involving the use of air power is unsurprising due to the relatively low level of technical expertise available and the lack of significant air forces in states other than South Africa and Egypt.
characteristics targeted by leadership through coup-proofing measures are used as a proxy for leadership fears specific to the air force as a branch. Intelligence assessments and coup plotters reliance on different characteristics of air power complete the analysis and show strong support for the framework proposed in this thesis.

Finally, the theoretical framework contends that the vulnerability of a state to an air force coup is structural. The air force is uniquely capable of “decapitation” coups that pose an existential threat to personalist regimes that rely on the personal attributes of a single leader. The sudden loss of authority in a monarchical or personalist dictatorship creates a power vacuum that the military is, perhaps, uniquely capable of filling. In most other systems, the decapitation of the head of state is unlikely to signal the demise of the government as a whole. The fact that air force coup risk is a structural vulnerability of the state makes leadership fears of the air force constant and extremely difficult to assuage. This is demonstrated through the long term imposition of crippling restrictions for decades following the coup attempts in Morocco (1972-1999) and Iraq (1963-2003).

In summation Air forces can, and frequently do, play a significant role in the conduct of the coup d’état. Their technological characteristics make them inherently threatening, while their innate human characteristics make them relatively prone to disloyalty. These characteristics create leadership fears that are very difficult to assuage through all but the most draconian of coup-proofing measures which, in turn, foster resentment from otherwise loyal professional technicians, officers, and pilots in the air force. As demonstrated in the Turkish coup attempt in 2016, the era of air force coups has not passed and the paradox of coup-proofing the air force remains unsolved.
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