NOT FOR PUBLICATION UNTIL RELEASED BY THE
HOUSE ARMED SERVICES COMMITTEE
READINESS SUBCOMMITTEE

STATEMENT OF

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BEFORE THE

READINESS SUBCOMMITTEE

OF THE

HOUSE ARMED SERVICES COMMITTEE

ON

AVIATION READINESS

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INTRO

Chairman Wilson, Ranking Member Bordallo, distinguished members of the House Armed Services Subcommittee on Readiness, and other distinguished members, I appreciate the opportunity to testify on the current state of Marine Corps Aviation readiness. As you are all aware, the Marine Corps' Title 10 responsibility is to be the Nation's Expeditionary Force in Readiness. We are charged and expected to always be the most ready when the Nation is least ready. This responsibility is at the very core of our identity as Marines.

During the last year, Marines executed approximately 104 operations, 87 security cooperation events with partners and allies, and participated in 61 major exercises. Nearly 23,000 Marines remain stationed or deployed west of the International Date Line to maintain regional stability and deterrence in the Indo-Asia-Pacific region. In addition to providing Foreign Humanitarian Assistance in St. Martin, Guadeloupe, and Dominica, your Marines also provided Defense Support of Civil Authorities to U.S. citizens in Texas, Florida, Puerto Rico and the U.S. Virgin Islands after recent Hurricanes Harvey, Irma and Maria wreaked havoc on the homeland. We continue to patrol the seas, afloat with our Navy brothers and sisters, able to project power at a moment's notice should the nation need us. We also stand ready to respond to crisis with our Special Purpose MAGTFs, tailored to reinforce Marines and assist U.S. personnel abroad.

WHERE WE WERE

When we testified before you last year we highlighted that Marine Aviation, mandated by law to be a T 2.0 force – a "ready" force – was going through a period of risk. Our "ready bench" – the number of flyable aircraft on-hand if we were required to respond to a crisis – was about 43%. We were progressing through the largest aircraft transition the Marine Corps has ever experienced as we modernized every type/model/series (TMS) aircraft in our inventory. However, even in an environment

of budget uncertainty, with poor aviation readiness rates, while conducting an in-stride aircraft transition, and with combat operations officially ending in Iraq and Afghanistan, our operational tempo increased. Our TACAIR, MV-22 and KC-130 units, on average, maintained a deployment to dwell ratio of 1:2. In other words, a Marine who deployed for six months would only one spend one year home before deploying again. That is technically a surge condition, *and we have been operating at this tempo for more than fifteen years*. We continued to fulfill our Global Force Management commitments, Special Purpose MAGTFs, Marine Expeditionary Units deployed afloat etc., but we did so at a cost. We did so with units achieving T 2.0 – the minimum requirement for tactical proficiency – just prior to deployment, or sometimes not at all, at the expense of our remain-behind forces. And we did this with aircraft that are operating beyond their designed life, and are some of the oldest in the DoD.

Given the gravity of our readiness challenges, Marine Aviation commissioned a series of Independent Readiness Reviews (IRRs) for some of our more challenged communities – the AV-8B, CH-53E and MV-22B. These IRRs, led by former flag and general officers from both Marine and other military services, brought in qualified outsiders to take an unbiased look at our programs. Concurrently, we had to make tough decisions within specific communities in an effort to manage readiness and mitigate risk within our next to deploy units. For example, we temporarily reduced the flight line entitlement for our Harriers (AV-8Bs), CH-53Es, and Hornets (F-18s). We did this because we simply didn't have enough of them on the flight line and elected to spread-load the remaining available operational aircraft. This temporary reduction moderately improved unit readiness but did so at the expense of flight hours – the true measurement of aviation health – which had reached historic lows compared to previous years.

WHERE WE ARE

As Deputy Commandant for Aviation, my focus is building readiness for combat. It is my top priority, enabled by modernizing the force, supporting Marine aircraft maintainers, and MAGTF integration. Today, most of our squadrons still lack the required number of ready aircraft required to "fight tonight," but we are seeing incremental improvement. There are many facets to our aviation readiness issue, and I know this committee understands that Readiness is more than the sum of its parts. I would like to focus on just two:

The first is maintenance readiness. Our overall readiness, fleet-wide across our different types of aircraft, is not where we want it. However every time an aircraft goes up, that aircraft is certified "safe for flight" and ready for the demands we put on it. We do not operate unsafe aircraft. Second is aviator readiness. Fleet-wide, our aviators' flight hour totals also are not where we want them, and this second problem comes from the first. We will not fly an unsafe aircraft, and so if aircraft are "down" for flight that day our aviators have lost a chance to build proficiency.

There is an important difference in these two readiness measures. Maintenance readiness is like a light switch: an aircraft is either ready to fly, or it is not. Aviator readiness is like a rheostat: a pilot can fly with three hundred total hours or with three thousand hours, and be qualified either way. Over time, though, reduced flight time and low proficiency creates *lost experience* – a gap – that follows our aviators throughout their careers. It means we have flight leaders, tactics instructors, and squadron commanders with less experience than their predecessors.

These two problems, combined, lead to the situation today. Not enough "up" aircraft mean not enough time for our aircrew to get better at their jobs; being "current" or "qualified" are distinctly different than being "proficient."

We are about 20% short of the required aircraft to meet Congress' T 2.0 mandate, and 7% short of our in-reporting requirement. For example, in my TACAIR fleet I can fly about half of the aircraft that I'm required to have on my flight lines. Our non-deployed units still sacrifice some readiness and training to ensure our deployed units are ready to fight, but this gap is improving. Our TACAIR deployment to dwell has improved on average from 1:2 to 1:2.6, which is closer to the optimal ratio of 1:3, and we've managed to increase our flight line entitlements for F/A-18s and AV-8Bs back to 12 and 16, respectively.

This shows our comprehensive recovery strategy is working – we are slowly adding aircraft to our flight line. In FY16 we added 44 ready aircraft to the fleet, which directly affected our FY17 flight hours per crew per month (HCM). Our HCM increased by 14% – almost two full hours – compared to the previous year (+1.9 HCM from FY16). However, we are still challenged with low readiness rates and low flight hours for aviators and aircrew. In FY17 Marine aviation's overall RBA recovery was flat. It only increased by 6 aircraft, which is a stark difference from the previous year, but still moving in the right direction. Through modernization and readiness recovery we have improved readiness by about 15% in our modern fleet, and by about 10% in our legacy fleet. Within this, some communities have improved more than others. The KC-130Js are up by over 25% and the AH-1Zs are up nearly 50% from the previous year.

We are designed to do a lot with a little, and we must move toward becoming a T 2.0 force as quickly as possible by rebuilding our "ready bench." We will fix aircraft by executing our readiness recovery plan, and by procuring aircraft to modernize our fleet. The readiness recovery initiatives we have established are positively impacting RBA recovery. However, the readiness gains have plateaued while utilization rates of available aircraft are increasing. Our readiness recovery efforts will help us bridge the gap and allow us to maximize utilization of our legacy aircraft through the transition, but modernization of our legacy fleet is the true key to regaining readiness. As of now, we are 43% complete with the modernization of every squadron in our inventory.

Our readiness recovery strategy is informed by the IRRs, which we have now completed for almost every TMS aircraft in our inventory. The IRR findings inspired several initiatives that will improve readiness recovery. While every TMS requires a unique recovery strategy, there are four common themes that surfaced in each IRR across all TMS: people, parts, process and funding.

People

We continue to recruit the best and brightest, but we are closely watching retention in our two most critical areas: pilots and aviation maintainers. While we have the correct number of aviators in our Service, but there are shortfalls in specific communities like MV-22, F/A-18 and F-35. We believe we are challenged in these communities because we have a high operational tempo, but lack the ready aircraft to conduct high intensity training with our non-deployed squadrons. Operationally, these TMS are high-demand, low-density communities. As such, we are offering an aviation bonus to pilots in these specific communities as well as a bonus to our best maintainers.

Healthy readiness is contingent upon having spare parts and trained aviation maintenance Marines to fix our aircraft. Regarding our maintenance Marines, our focus is ensuring we have the right people with the right leadership and skill sets in positions of authority and responsibility. We are a very young force operating on the most technologically advanced aircraft in the world. We have a high turnover rate; essentially, we have an entirely new maintenance department in every squadron every four years. For our Marines to remain competitive for promotion within their specific pipelines they are required to PCS (i.e. move) and perform different jobs outside their primary Military Occupational Specialty (MOS). In specific aviation communities, this created an “experience gap” at some of our supervisor levels because we failed to track and prioritize critical skills essential for maintenance supervisors; we are doing that now.

We are offering a "retention bonus" to some of these maintainers with the qualifications and skill sets we need in an effort to keep them on the flight line supervising our wrench-turners. If they receive the bonus, they sign a contract to stay with their current unit for an additional two years, which will help us keep a solid experience-base in the maintenance community and, ultimately, improve readiness. To continue building experience within our ranks we have also developed several other initiatives. We created the Advanced Maintenance Officer Course, an advanced maintenance training course for officers and senior SNCOs. We created the Advanced Aviation Management Training Course, which targets our SNCO leaders and enhances their maintenance management skills. To bring this all together and capitalize on the investment we're making in our maintenance Marines, we updated our MOS manual so advanced qualifications like collateral duty inspector, collateral duty quality assurance representative (CDQAR), and multi-system CDQARs will generate additional specialties that will be used to track unit staffing. We're keeping the right Marines with the right qualifications in the right place.

Parts

Non-Mission Capable – Supply (NMCS) continues to be the primary degrader of Marine aviation readiness; we do not have enough parts on the shelves to fix the aircraft on the flight lines. As we continue to meet a high operational tempo with legacy aircraft that are rapidly aging beyond their designed life, Marine aviation offset procurement of modern aircraft to properly resource historically under-funded readiness enabler accounts. Fully funding our spares accounts is critical to recovery and transition. We funded them to their maximum executable levels in FY17 through the Request for Additional Appropriations (RAA), and funded them to unprecedented levels in FY18. We must have spares to recover readiness in our legacy aircraft, and to get them takes time and consistent funding levels.

We must also have spares to build and sustain future readiness in our new aircraft. The flat RBA recovery in FY17 is due to delayed spare parts funding. For example, for all the spare parts ordered during FY17, about 7% of them weren't received for over 51 days. That sounds like a small number, but an *entire aircraft* can be non-mission capable for just *one component.* When funded properly and consistently, we expect to see a corresponding RBA recovery in 18-24 months. As we rebuild our ready bench and increase aircraft on the flight line, we will require additional funding for flight hours to sustain our recovery model, continue to fly, and train our aircrew.

Funding

Congress has been helpful with funding our Readiness Recovery Plan, and this is essential. Our strategy is largely informed by our IRRs. For instance, last year we started the "CH-53E Reset" with the sole focus of resetting the entire CH-53E fleet to a pre-war state. This reset is critical because 1) our inventory is inadequate (143 of 200 required), and 2) of my remaining inventory, only about a third (37%) of them are flyable. We have inducted 28 aircraft into reset, with 16 aircraft currently in work. The CH-53E reset averages about 180 days per aircraft. To date, we have "reset" 13 CH-53Es and returned them to the fleet. These aircraft have already accumulated over two thousand flight hours and have cut the maintenance-man hours nearly in half, which are two metrics for measuring the return on investment of this program.

Another key initiative is our MV-22 Common Configuration Readiness and Modernization (CCRAM) program. The MV-22s were deployed ahead of schedule in 2007 and have been in combat for over a decade. This high demand signal required us to put them into operation as fast as they were coming off the line. That deployment rate along with a decade's worth of aircraft improvements yielded 75 different configurations of the MV-22. RBA rates are currently at 48%, which is unacceptable. CCRAM is a critical readiness initiative required to restore our fleet and aircrew to T 2.0, and will restore and

sustain 34 additional RBA among our existing fleet. To this point, a 7-year multi-year procurement contract for V-22 allows us to capitalize on savings and simultaneously support the CCRAM initiative.

These are two of many readiness recovery initiatives we've implemented across all our TMS aircraft in an effort to regain RBA, rebuild our flight hours, and become a T 2.0 force as required by law.

AVIATION MISHAPS

The true metric of health in aviation is aircrew flight hours. While we have increased our average HCM in the last year, we are still well below what is required. Chairman Dunford recently commented on the current flight hours our aircrew are getting compared to what they used to fly. He also discussed the different responses a high-hour aviator and a low-hour aviator may have in a given scenario. He concludes that the high-hour aviator is better-armed to make a split-second assessment and respond to an anomalous situation, correctly. General Dunford's assessment is spot-on. A decade ago, Marine aviators averaged about 16.3 HCM. Today, we are averaging 15.4 HCM. This is a mere 5.5% reduction, but it doesn't tell the whole story. Newly-winged aviators typically remain in their first fleet squadron for three years. This group is the foundation of the future of aviation. When I compare these 2017 "graduates" of their first fleet tour to the 2007 "class", those pilots today have averaged 20% less flight hours over their three year tour than the same group in 2007.

While there is still no direct link between low readiness rates and high Class A mishap rates, there's no question that naval aviation is an inherently demanding discipline, and is unforgiving of any mistakes. Well trained and practiced aviators react to malfunctions and difficult circumstances far better and are much less likely to make mistakes, which in turn increases the chance of preventing these anomalous events from becoming mishaps. We typically think of mishaps in terms of number of mishaps and mishap rate. Given recent tragic events within our community, one could question whether flying

more flight hours is the correct solution. One might draw the conclusion that more flight hours equals more risk. To that end, mishap rates are expressed in terms of percent per 100,000 flight hours.

Historically, our mishap rates have been fairly flat though there has been a recent spike. However, a deeper analysis might be more revealing if we look at the environment in which we are seeing these mishaps (e.g. reduced visibility landings – or brownouts, shipboard landings, low altitude flying, etc.) compared to how often we are training in that environment (i.e. currency and proficiency). Viewed as a bell curve, the model for our aviators would be exposure to operational risk graphed against appropriate training and flight hours.

Conclusion

I will conclude by stating that Marine aviation readiness is improving, but fragile. Our readiness recovery lies in modernization of our aircraft, and fixing the ones we have. To recover readiness, we require four things from Congress. First, we need stable and predictable funding *over time*. I know this committee understands the damage continuing resolutions cause; even if we receive all the appropriations we ask for, if it is not *on time* we will be challenged to execute it. Second, we must continue to modernize our legacy aircraft as quickly as possible in a fiscally responsible manner. Third, we need Congress to fully fund our readiness enabler accounts and flight hour program so we can sustain our current recovery model. Finally, we require time – time for our initiatives to take effect.

Mr. Chairman, distinguished committee members, we in the Marine Corps appreciate your continued support and look forward to answering your questions.