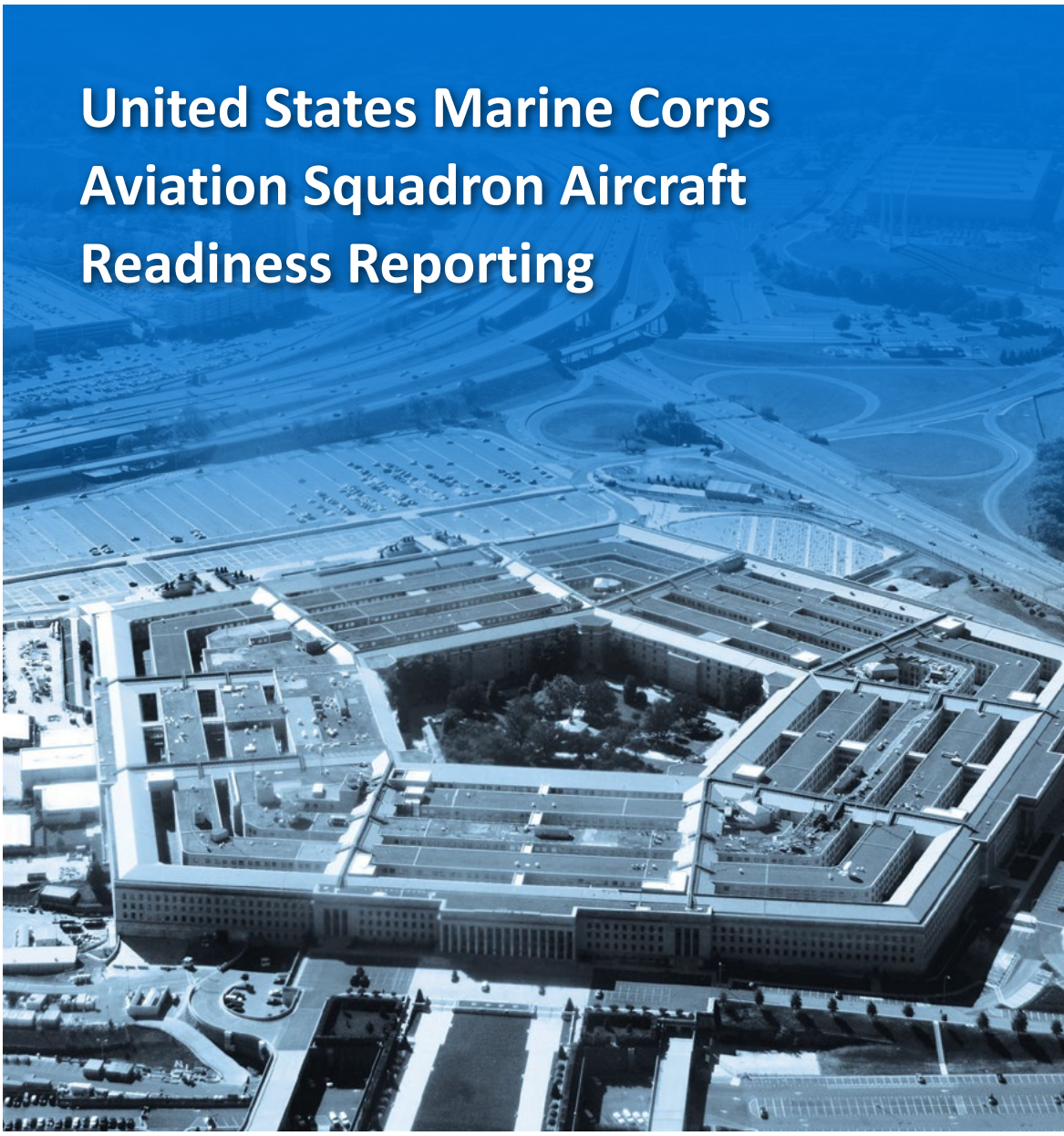
Report No. DODIG-2018-141

INSPECTOR GENERAL

U.S. Department of Defense

AUGUST 8, 2018

United States Marine Corps Aviation Squadron Aircraft Readiness Reporting



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Results in Brief

United States Marine Corps Aviation Squadron Aircraft Readiness Reporting

August 8, 2018

Objective

We determined whether active duty Marine Corps Aviation squadrons accurately reported aircraft readiness in the Defense Readiness Reporting System–Marine Corps. The Defense Readiness Reporting System–Marine Corps is the Marine Corps' system of record for reporting its aircraft readiness. For this audit, we focused on the F/A-18 and CH-53E airframes.

Background

The Marine Corps is organized into three active duty combat divisions, three active duty air wings, and multiple other supporting units and serves as the Nation's forward-deployed expeditionary force. Within the Marine Corps, a Marine Aircraft Wing is composed of one or more Marine Aviation Groups, which in turn are composed of one or more squadrons. For readiness reporting, a squadron reports to a Marine Aircraft Group, which in turn reports to a Marine Aircraft Wing. The Deputy Commandant for Aviation coordinates with the Deputy Commandant for Plans, Policy, and Operations on policy, procedures, and guidance for aviation unit readiness reporting.

Marine Corps Aviation squadrons are organized by aircraft type and are expected to execute a list of specified mission essential tasks (METs). As part of the readiness reporting, squadron commanders are required to complete an assessment of the squadron's core METs. To perform its core METs, a squadron must have a specific number of mission-capable aircraft.

Background (cont'd)

The Marine Corps readiness reporting guidance requires that squadron commanders assess their METs based on the squadron's present state of readiness. In addition, the guidance requires squadron commanders to assess whether the squadron is appropriately equipped to perform its METs. The guidance also requires intermediate commands to establish procedures to verify, within 5 days of submission, the completeness and accuracy of the subordinate readiness reports. Readiness guidance further requires the Marine Corps to maintain a single uniform system for the preparation, approval, and maintenance of readiness reporting and establishes reporting organizations and frequency of readiness reporting. According to the guidance, readiness is reported as needed or on at least a monthly basis.

Finding

We determined that Marine Corps Aviation squadron commanders did not accurately report aircraft readiness. Specifically, for the 10 non-statistically sampled aviation squadrons we reviewed, we determined that:

- nine squadron commanders did not report the present state of their squadron's aircraft readiness;
- five squadron commanders did not accurately report the number of mission-capable aircraft in their MET assessment; and
- four squadron commanders did not accurately report whether their squadron was properly equipped to perform its METs.

This occurred because Marine Corps readiness reporting guidance is unclear and was interpreted differently by the squadron commanders. Specifically, the Marine Corps readiness guidance is unclear on the definition of present state, silent on how squadron commanders should report the number of mission-capable aircraft in their MET assessments, and unclear on how squadron commanders are to report their METs as resourced. In addition, Marine Aircraft Group officials did not provide oversight to ensure that squadron

Results in Brief

United States Marine Corps Aviation Squadron Aircraft Readiness Reporting

Finding (cont'd)

commanders accurately reported squadron aircraft readiness. As a result, Marine Corps officials do not have an accurate assessment of what the aircrafts' capabilities currently are, which could negatively impact planning for training and operations by assigning a mission to an aircraft that it is not capable of performing. This could potentially put mission accomplishment and personnel at risk.

Recommendations

We recommend that the Deputy Commandant for Aviation, Headquarters, Marine Corps require all reporting units and organizations to use the Optimized Organizational Maintenance Activity (OOMA) system as the sole source for reporting aircraft readiness.

We also recommend that the Deputy Commandant for Plans, Policies, and Operations, in coordination with the Deputy Commandant for Aviation:

- revise Marine Corps Order 3000.13A to include a clear definition of present state, and clarify how mission-capable aircraft quantities should be reported in the mission essential task assessments and how a mission essential task should be properly reported as resourced;
- implement training on reporting readiness, in accordance with the revised Marine Corps Order 3000.13A, for reporting units and organizations; and
- develop and implement procedures, in accordance with the revised Marine Corps Order 3000.13A, to ensure that intermediate commands verify the completeness and accuracy of their subordinate units' readiness reports.

Management Comments and Our Response

The Deputy Commandant for Aviation, Headquarters, Marine Corps, agreed to require that all reporting units use OOMA as the sole source for reporting aircraft readiness, but stated that OOMA, used in combination with the Marine Aviation Commanders Combat Readiness Assessment Tool, would provide a more accurate assessment of aircraft readiness than OOMA alone. However, the Deputy Commandant did not provide specifics of how the two systems would provide a more accurate readiness assessment and whether their use would be required. Therefore, we consider the recommendation unresolved and request additional comments to the final report.

The Deputy Commandant for Plans, Policies, and Operations agreed to coordinate with the Deputy Commandant for Aviation to revise the Marine Corps Order 3000.13A to define present state, clarify how mission-capable aircraft quantities should be reported, and how a mission essential task should be properly reported as resourced. The Deputy Commandant also agreed to implement training in accordance with the Marine Corps Order 3000.13A revision. Therefore, the recommendations are resolved and will be closed once we verify that the planned actions are fully implemented.

Although the Deputy Commandant for Plans, Policies, and Operations agreed to coordinate with the Deputy Commandant for Aviation to develop procedures that ensure intermediate commands verify the completeness and accuracy of subordinate units' readiness reports, he did not specify how the verification will be achieved. Therefore, we consider the recommendation unresolved and request additional comments to the final report.

Please see the Recommendations Table on the next page.

Recommendations Table

Management	Recommendations Unresolved	Recommendations Resolved	Recommendations Closed
Deputy Commandant for Aviation, Headquarters, Marine Corps	1		
Deputy Commandant for Plans, Policies, and Operations	2.c	2.a and 2.b	

Please provide Management Comments by September 7, 2018.

Note: The following categories are used to describe agency management's comments to individual recommendations.

- **Unresolved** – Management has not agreed to implement the recommendation or has not proposed actions that will address the recommendation.
- **Resolved** – Management agreed to implement the recommendation or has proposed actions that will address the underlying finding that generated the recommendation.
- **Closed** – OIG verified that the agreed upon corrective actions were implemented.


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August 8, 2018

MEMORANDUM FOR NAVAL INSPECTOR GENERAL

SUBJECT: United States Marine Corps Aviation Squadron Aircraft Readiness Reporting (Report No. DODIG-2018-141)

We are providing this report for review and comment. We conducted this audit in accordance with generally accepted government auditing standards.

We considered management comments on a draft of this report when preparing the final report. DoD Instruction 7650.03 requires that recommendations be resolved promptly. Comments from the Deputy Commandant for Aviation, Headquarters, Marine Corps, and the Deputy Commandant for Plans, Policies, and Operations did not address the specifics of Recommendations 1 and 2.c, respectively and, therefore, those recommendations are unresolved. We request that the Deputy Commandant for Aviation and the Deputy Commandant for Plans, Policies, and Operations provide additional comments on those recommendations by September 7, 2018.

Please send a PDF file containing your comments to audrgo@dodig.mil. Copies of your comments must have the actual signature of the authorizing official for your organization. We cannot accept the /Signed/ symbol in place of the actual signature. If you arrange to send classified comments electronically, you must send them over the SECRET Internet Protocol Router Network (SIPRNET).

We appreciate the cooperation and assistance received during the audit. Please direct questions to me at (703) 699-7331 (DSN 499-7331).

Carol N. Gorman
Assistant Inspector General
Cyberspace Operations

Contents

Introduction

Objective

The original audit objective was to determine whether U.S. Marine Corps Aviation squadrons had sufficient full mission-capable aircraft and proficient pilots to meet minimum standards for their mission essential tasks (METs). METs are actions, processes, or activities that are critical to mission accomplishment and can include the core METs as well as additional tasks specific to a particular mission. Core METs are the essential tasks that enable a squadron to accomplish the mission for which it was designed. A squadron's readiness is defined by its ability to accomplish the core METs.

During the audit, the Deputy Commandant for Plans, Policies, and Operations, Marine Corps, revised the minimum standard for reporting aircraft readiness for METs from full mission-capable to mission-capable. A full mission-capable aircraft can perform all of its missions, while a mission-capable aircraft can perform at least one and potentially all of its missions. The change in guidance enables squadron commanders to provide greater detail on the capabilities of the squadron's individual aircraft. Because we focused on full mission-capable aircraft, we could not determine whether Marine Corps Aviation squadrons had sufficient mission-capable aircraft to meet the minimum standards for their core METs.

During the audit, we also identified preliminary issues related to the reliability of the data supporting the training readiness of the pilots. The preliminary issues included the ability to change training data up to 30 days after the training occurred; multiple personnel being able to alter training data; and inconsistencies in aircraft commanders signing, or not signing, training records. The Marine Corps improved the control environment in the system that supports training readiness in December 2017. The control environment improvements included enabling the use of common access cards and restricting access on who can certify training data. We did not develop the preliminary issues further because we need to give the Marine Corps time to implement these changes.

Consequently, we adjusted the focus of our audit to determine whether active duty Marine Corps Aviation squadrons accurately reported aircraft readiness in the Defense Readiness Reporting System–Marine Corps (DRRS-MC).[1] DRRS-MC is the Marine Corps' system of record for reporting readiness. We non-statistically selected F/A-18 and CH-53E squadrons within the 2nd Marine Air Wing (MAW), Marine Corps Air Station Cherry Point, North Carolina; and 3rd MAW, Marine Corps Air Station Miramar, California. See Appendix A for the scope and methodology.

[1] Readiness reporting for aviation includes aircraft readiness.

Background

The Marine Corps is organized into three active duty combat divisions, three active duty air wings, and multiple other supporting units and serves as the Nation's forward-deployed expeditionary force. Within the Marine Corps, a MAW is composed of one or more Marine Aviation Groups (MAGs), which in turn are composed of one or more squadrons. For readiness reporting, a squadron reports to a MAG, which in turn reports to a MAW.[2] The Deputy Commandant for Aviation coordinates with the Deputy Commandant for Plans, Policies, and Operations on policy, procedures, and guidance for aviation unit readiness reporting. Marine Corps Aviation squadrons are organized by aircraft type and are expected to execute a list of specific METs. As part of the readiness reporting, squadron commanders are required to complete an assessment of the squadron's core METs. To perform its core METs, a squadron must have a specific number of mission-capable aircraft.

Aircraft Readiness Reporting

Marine Corps Order (MCO) 3000.13A requires that squadron commanders assess their METs based on the squadron's present state.[3] In addition, the guidance requires each squadron commander to assess whether the squadron is appropriately equipped to perform its METs.[4] MCO 3000.13A requires intermediate commands to establish procedures to verify the completeness and accuracy of the subordinate units' readiness reports. The readiness guidance also requires the Marine Corps to maintain a single uniform system for the preparation, approval, and maintenance of readiness reporting and establishes reporting organizations and frequency of readiness reporting. According to MCO 3000.13A, readiness should be reported as needed or on at least a monthly basis.

Readiness Reporting Systems

Marine Corps Aviation squadron personnel use data from multiple systems to assess the material condition of aircraft. Squadron maintenance personnel use the Optimized Organizational Maintenance Activity (OOMA) and the Aviation Maintenance Supply Readiness Reporting (AMSRR) systems to assess the squadron's aircraft readiness. Maintenance personnel use the aircraft status information from OOMA, along with the projected status of the aircraft, to populate AMSRR. The squadron commander, or the designated agent, uses the information in AMSRR to report aircraft readiness in DRRS-MC.

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[2] For this report, intermediate commands refer to MAG and MAW commands.

[3] Marine Corps Order 3000.13A, "Marine Corps Readiness Reporting," July 18, 2017.

[4] A squadron is resourced, or equipped, to accomplish its METs when it possesses all the required personnel and equipment to execute its assigned tasks. For this report, we reviewed only aircraft.

Optimized Organizational Maintenance Activity System

OOMA is an automated system that provides the Marine Corps with real-time maintenance and flight information such as the material condition of the aircraft, flight hours, engine hours, and status of repairs. OOMA is designed to provide Marine Corps maintenance, material, and operations managers with timely, accurate, and complete information.

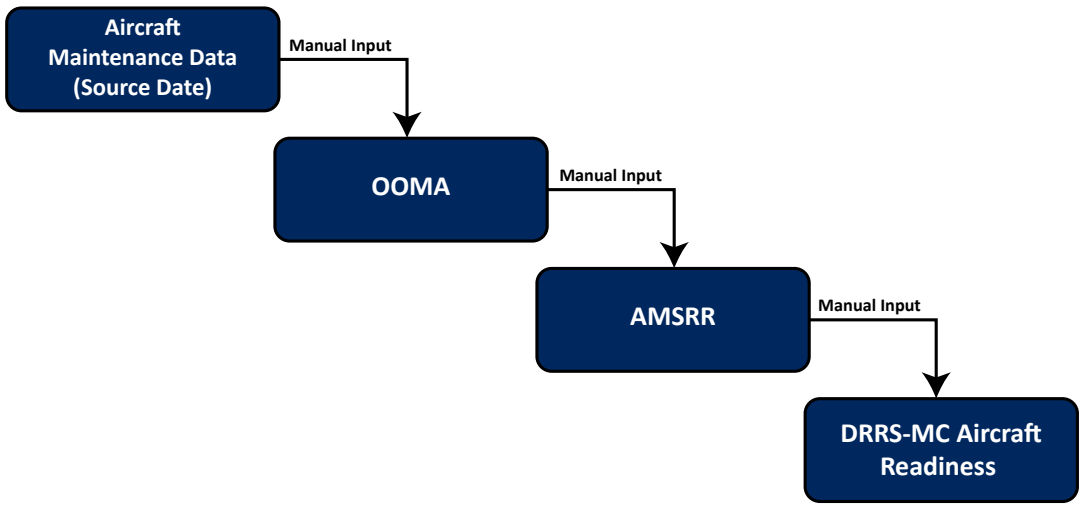
Aviation Maintenance Supply Readiness Reporting System

AMSRR is a web-based system used by the Marine Corps to report aircraft material condition, which includes mission-capable and full mission-capable. This system allows squadron personnel to subjectively report aircraft status and material readiness, using OOMA aircraft maintenance data, on a daily basis. The maintenance source data from OOMA is manually entered into AMSRR by maintenance personnel.

Defense Readiness Reporting System-Marine Corps

DRRS is the DoD system of record for reporting readiness and was designed to provide an objective, accurate, and timely assessment of a squadron's capabilities. The Marine Corps uses DRRS-MC to report readiness. According to MCO 3000.13A, all squadron commanders should report readiness for their core mission, which is defined as those METs related to the core mission of the squadron. Squadron commanders are responsible for ensuring the accurate and timely submission of the squadron's readiness status information. The figure below shows the flow of aircraft maintenance data from the aircraft maintenance department to DRRS-MC.

Figure. Flow of Information from Maintenance System to Readiness Reporting System



Source: The DoD OIG.

Review of Internal Controls

DoD Instruction 5010.40 requires DoD organizations to implement a comprehensive system of internal controls that provides reasonable assurance that programs are operating as intended and to evaluate the effectiveness of the controls.[5] We identified an internal control weakness related to the oversight of aircraft readiness reporting. Specifically, Marine Corps Aviation officials at the MAG and the MAW did not provide adequate oversight to ensure squadron commanders accurately reported their squadron's aircraft readiness according to established guidance. We will provide a copy of the report to the senior officials responsible for internal controls over oversight related to aircraft readiness reporting in the Marine Corps.

[5] DoD Instruction 5010.40, "Managers' Internal Control Program Procedures," May 30, 2013.

Finding

Marine Corps Aviation Squadron Commanders Did Not Accurately Report Aircraft Readiness

Marine Corps Aviation squadron commanders did not accurately report aircraft readiness. Specifically, for the 10 non-statistically sampled aviation squadrons we reviewed:

- nine squadron commanders did not report the present state of their squadrons' aircraft readiness;
- five squadron commanders did not accurately report the number of mission-capable aircraft in their MET assessment; and
- four squadron commanders did not accurately report whether their squadron was properly equipped to perform its METs.

This occurred because Marine Corps readiness reporting guidance was unclear and was interpreted differently by the squadron commanders. Specifically, MCO 3000.13A is unclear on the definition of present state, silent on how squadron commanders should report the number of mission-capable aircraft in their MET assessments, and unclear on how squadron commanders are to report their METs as resourced. In addition, MAG officials did not provide oversight to ensure that squadron commanders accurately reported aircraft readiness. As a result, Marine Corps officials do not have an accurate assessment of what the aircrafts' capabilities currently are, which could negatively impact planning for training and operations by assigning a mission to an aircraft it is not capable of performing. This could potentially put mission accomplishment and personnel at risk.

Squadron Commanders Did Not Accurately Report Aircraft Readiness

Marine Corps Aviation squadron commanders did not accurately report aircraft readiness. Table 1 shows that 9 of the 10 squadron commanders did not report the present state of their squadron's aircraft readiness, 5 of the 10 did not accurately report the quantity of mission-capable aircraft for each MET, and 4 of the 10 did not accurately report whether their squadrons were properly equipped to perform their METs.

Table 1. Summary of Squadron Aircraft Readiness

Squadron	Reported Using Present State*	Accurately Reported Aircraft Quantities	Properly Reported METS as Resourced
HMH 361	No	No	Yes
HMH 366	No	Yes	Yes
HMH 461	No	No	Yes
HMH 464	No	No	Yes
HMH 466	Yes	Yes	Yes
VMFA 251	No	Yes	Yes
VMFA 314	No	No	No
VMFA 323	No	Yes	No
VMFA(AW) 224	No	No	No
VMFA(AW) 533	No	Yes	No

* For this audit, present state means the aircraft readiness based on the OOMA data at the time the DRRS-MC report was submitted.

Source: The DoD OIG.

Squadron Commanders Did Not Use the Present State for Reporting Aircraft Readiness

Of the 10 squadrons we reviewed, 9 squadron commanders did not report the present state of their squadron's aircraft readiness in the MET assessment section of the DRRS-MC reports. MCO 3000.13A states that the assessment of METs must be based on the organization's present state and not a future projection. The Commander Naval Air Forces Instruction 4790.2C specifically states that OOMA, which is a real time system that reflects the most up to date status information, should be the only means of collecting source data in support of aircraft mission capability and use.[6] However, nine squadron commanders were inconsistent and used various time frames to report aircraft readiness in their MET assessment, such as:

- a prior 30-day average using AMSRR,
- a point in time using AMSRR, and
- a 7-day forecast based on OOMA.[7]

[6] Commander Naval Air Forces Instruction 4790.2C, "Naval Aviation Maintenance Program," January 15, 2017.

[7] Point in time means a specific day during the reporting period.

For the squadrons that we reviewed, we met with squadron commanders to determine their process for reporting readiness. During our meetings, they identified the various reporting periods and systems they relied on for reporting aircraft readiness. Table 2 summarizes the reporting periods the squadron commanders used when reporting aircraft readiness.

Table 2. Summary of Squadron Aircraft Readiness Reporting Periods and Sources

Squadron	Reporting Periods	Source of Aircraft Readiness Data
HMH 361	Point in Time	AMSRR
HMH 366	Point in Time	AMSRR
HMH 461	7-Day Forecast	OOMA
HMH 464	Point in Time	AMSRR
HMH 466	Point in Time	AMSRR
VMFA 251	Prior Month Average	AMSRR
VMFA 314	Point in Time	AMSRR
VMFA 323	Prior Month Average	AMSRR
VMFA(AW) 224	Prior Month Average	AMSRR
VMFA(AW) 533	Prior Month Average	AMSRR

Source: The DoD OIG.

Squadron commanders provided several reasons for using a period of reporting other than the present state. For example, one squadron commander stated that the squadron was directed by intermediate level officials to report aircraft readiness based on a 30-day average. Another squadron commander stated that the squadron wanted to provide a more accurate representation of what they could execute based on past performance or future projection, rather than present state. Use of a past performance, a 30-day average, or a future projection would not provide decision makers an accurate representation of squadron readiness if they were required to deploy a squadron on short notice. The Deputy Commandant for Aviation, Headquarters, Marine Corps, should require all reporting units and organizations to use OOMA as the sole source for reporting aircraft readiness. In addition, the Deputy Commandant for Plans, Policies, and Operations should:

- revise MCO 3000.13A to include a clear definition of present state; and
- develop and implement procedures, in accordance with the revised MCO 3000.13A, to ensure that intermediate commands verify that subordinate units report the present state of their squadron's readiness.

Squadron Commanders Did Not Accurately Report Aircraft Quantities

Of the 10 squadrons reviewed, 5 squadron commanders overstated the number of mission-capable aircraft in the MET assessment section of the DRRS-MC report. The number of mission-capable aircraft is identified in two sections of the DRRS-MC report—the equipment resources section and the MET assessment section. For the equipment resources section, MCO 3000.13A states that the equipment required for readiness reporting is based on the squadron's ability to provide the quantities and quality of equipment needed to accomplish its missions. For the MET assessment section, MCO 3000.13A does not provide guidance on how squadron commanders should report the number of mission-capable aircraft. However, MAG officials stated that the number of mission-capable aircraft reported in the MET assessment section should not exceed the number of mission-capable aircraft in the equipment resources section.

We compared the number of mission-capable aircraft in the equipment resources section of the DRRS-MC report to the number of mission-capable aircraft in the MET assessment section of the DRRS-MC report. Table 3 summarizes the inaccurately reported aircraft quantities, by squadron.

Table 3. Summary of Inaccurately Reported Aircraft Quantities

Squadron	Reporting Month	Result
HMH 361	December 2017	Overstated by 2
HMH 461	December 2017	Overstated by 1
HMH 464	December 2017	Overstated by 3
HMH 464	January 2018	Overstated by 2
HMH 464	February 2018	Overstated by 3
VMFA 314	February 2018	Overstated by 1
VMFA 224	January 2018	Overstated by 1

Source: The DoD OIG.

During our discussions with the squadron commanders, they provided several reasons for overstating the number of mission-capable aircraft in their MET assessments, including a lack of oversight on their part and an assessment of aircraft readiness based on historical data. The Deputy Commandant for Plans, Policies, and Operations, in coordination with the Deputy Commandant for Aviation, Headquarters, Marine Corps, should clarify MCO 3000.13A on how reporting units and organizations should report the number of mission-capable aircraft in their MET assessments for reporting readiness.

Squadron Commanders Did Not Accurately Report Their METs as Resourced

Of the 10 squadrons reviewed, 4 squadron commanders did not accurately report in DRRS-MC whether the squadron was properly equipped to perform its METs. MCO 3000.13A states that a squadron is resourced when it meets the equipment standards for its METs. MCO 3000.13A further states that the assessment of METs is based on the squadron's present state and not a future projection.

We compared the required criteria of mission-capable aircraft for each MET to the number of mission-capable aircraft the squadron commander entered in the MET assessment section of the DRRS-MC report. Table 4 summarizes the number of squadron commanders that did not accurately report whether the squadron was equipped to perform its METs.

Table 4. Summary of Squadron Resource Inaccuracies

Result	December 2017	January 2018	February 2018
One squadron commander reported the squadron was not resourced for all eight METs; even though, the squadron had the mission-capable aircraft to accomplish the eight METs.	1		
One squadron commander reported the squadron was resourced for six of its eight METs; however, the squadron did not have the required support equipment to accomplish the six METs.	1		
Two squadron commanders reported the squadrons were resourced for all ten METs; however, both squadrons did not have the mission-capable aircraft required to accomplish the ten METs.	1	1	
One of the two squadron commanders above also reported the squadron was resourced for nine of its ten METs; however, the squadron did not have the mission-capable aircraft required to accomplish the nine METs.		1	2

Source: DoD OIG

During our discussions with the squadron commanders, they provided several reasons for inaccurately reporting their squadrons' resource status for their METs. For example, one squadron commander reported that the squadron would not be able to meet its METs in the future based on an expectation of limited aircraft. Other squadron commanders stated that they were capable of executing

the specific MET based on past performance and that they could perform the output standard with the aircraft they had on hand. These squadron commanders cited MCO 3000.13A for their support in reporting their METs as resourced. MCO 3000.13A states:

> The [squadron] is resourced to accomplish a [MET] to established output standards. Any resource standards (personnel, equipment, and subordinate forces) that are not met must be fully and clearly detailed in the MET assessment and supporting commands. This includes those units where resources have been explicitly identified to allow it to execute assigned [METs] when ordered.

Squadron commanders interpreted the guidance differently with respect to the meaning of resourced. For example, one squadron commander reported the squadron's METs as resourced if the squadron could meet the output standards with the aircraft on hand. Another squadron commander, for example, reported the squadron's METs as resourced if the aircraft were assigned to the squadron and performed the MET in the prior 180 days. To ensure that squadron commanders accurately report in DRRS-MC whether the squadron is equipped to perform its METs, the Deputy Commandant for Plans, Policies, and Operations, in coordination with the Deputy Commandant for Aviation, Headquarters, Marine Corps, should:

- clarify the MCO 3000.13A on how reporting units and organizations should properly report their METs as resourced with the required equipment; and
- develop and implement procedures, in accordance with the revised MCO 3000.13A, to ensure that intermediate commands verify that subordinate units accurately report whether their METs are properly resourced with the required equipment.

Marine Corps Officials Did Not Provide Clear Guidance

Marine Corps officials did not provide clear guidance for reporting aircraft readiness. MCO 3000.13A is unclear on the definition of present state and silent on how squadron commanders should report the number of mission-capable aircraft in their MET assessment. In addition, the guidance is unclear on how squadron commanders are to report their METs as resourced. We discussed the inconsistencies and inaccuracies with the MAG, MAW, and Headquarters, Marine Corps Aviation officials.

MAW officials stated that readiness reports should be based on the present state of the squadron's readiness. However, MAW officials also instructed subordinate units to follow guidance that stipulates when each subordinate unit should report their readiness. For example, the 2nd MAW Deputy Chief of Staff stated that squadron commanders should report their readiness on the second Friday of

every month. The 3rd MAW Chief of Staff stated that 3rd MAW developed guidance requiring that all data used for reporting readiness must be retrieved as of the 1st and reported on the 5th of each month.

In addition, MAG officials stated that aircraft quantities in the MET assessment section of the DRRS-MC report should not exceed the quantities reported in the equipment resources section of the DRRS-MC report. The MAG officials also stated that a squadron commander could declare METs as resourced based on a 30-day average of the aircraft the squadron had available and based on the squadron commander's discretion.

One Headquarters, Marine Corps Aviation official stated that if the guidance requires present state, then the Marine Corps should be reporting present state. He added that the data supporting the readiness reports will be automatically populated from the source systems (such as OOMA) within 18 to 24 months from February 2018, which will enforce the use of present state in readiness reporting. Headquarters, Marine Corps Aviation officials acknowledged that discrepancies existed in the squadron readiness reports related to mission-capable aircraft quantities and resourced METs. In addition, Headquarters, Marine Corps Aviation officials stated that a squadron commander should declare a MET as resourced if the squadron commander is confident the mission-capable aircraft has all the necessary equipment to conduct the MET.

To ensure that squadron commanders accurately report their squadron's aircraft readiness in DRRS-MC, MCO 3000.13A should clearly define present state, how squadron commanders should properly report the number of mission-capable aircraft in their MET assessment, and how to properly declare their METs as resourced to prevent the inconsistencies and inaccuracies identified in this report. The Deputy Commandant for Plans, Policies, and Operations, in coordination with the Deputy Commandant for Aviation, Headquarters, Marine Corps, should:

- revise the MCO 3000.13A to include a clear definition of present state, and clarify how the number of mission-capable aircraft should be reported in the MET assessment and how a MET should be properly reported as resourced with the required equipment; and
- implement training on reporting readiness in accordance with the revised MCO 3000.13A for reporting units and organizations.

Marine Corps Officials Did Not Provide Adequate Oversight

MAG officials did not provide adequate oversight to ensure that squadron commanders accurately reported aircraft readiness. MCO 3000.13A requires intermediate commands to establish a process to verify the completeness and accuracy of their subordinate units' readiness reports. However, during our discussions with the MAG officials, they stated that they did not verify whether squadron commanders accurately and consistently reported the squadrons' present state of readiness, the number of mission-capable aircraft for the squadrons' METs, and the resources required to conduct specific METs. Instead, MAG officials stated that they performed cursory reviews, relying on squadron commanders to accurately report their readiness.

In addition, during our discussion with the Headquarters, Marine Corps Aviation officials on reporting present state, one official acknowledged that Headquarters, Marine Corps Aviation has allowed a 30-day average when the squadron commanders report readiness. The official added that this flexibility prevented the time-consuming task of squadron commanders constantly updating the readiness reports. A Headquarters, Marine Corps Aviation official also acknowledged that discrepancies existed in the squadron readiness reports related to mission-capable aircraft quantities and resourced METs. The Headquarters official further stated that the discrepancies exist because they focus on the training standard when reviewing the MET assessment section of the DRRS-MC report. The official added that Headquarters personnel reviewing the readiness reports would only focus on what they considered questionable data.

MAG officials should conduct oversight on the squadron's readiness reporting to identify and correct readiness reporting inconsistencies and inaccuracies. The Deputy Commandant for Plans, Policies, and Operations, in coordination with the Deputy Commandant for Headquarters, Marine Corps Aviation, should develop and implement procedures to ensure intermediate commands verify the completeness and accuracy of their subordinate units' readiness reports.

Conclusion

The DRRS-MC readiness reports provide Marine Corps officials information for deliberate or peacetime planning and for organizing, training, and equipping combat-ready forces for combatant commands. A significant aspect of readiness reporting is the requirement for squadron commanders to assess their squadrons' capabilities to accomplish their METs. Without accurate readiness reporting, Marine Corps officials do not have an accurate assessment of what the aircrafts'

capabilities currently are, which could negatively impact planning for training and operations by assigning a mission to an aircraft it is not capable of performing. This could potentially put mission accomplishment and personnel at risk.

Recommendations, Management Comments, and Our Response

Recommendation 1

We recommend that the Deputy Commandant for Aviation, Headquarters, Marine Corps, require all reporting units and organizations use the Optimized Organizational Maintenance Activity system as the sole source for reporting aircraft readiness.

Deputy Commandant for Aviation, Headquarters, Marine Corps Comments

The Deputy Commandant for Aviation, Headquarters, Marine Corps, agreed, stating that OOMA feeds the Marine Aviation Commanders Combat Readiness Assessment Tool (MACCRAT), which allows the commander to accurately assess unit maintenance practices. He stated that OOMA and MACCRAT, in combination, focus the squadron's efforts and provide the higher agencies the necessary visibility to support the readiness requirements of each squadron. The Deputy Commandant also stated that, independently, OOMA and MACCRAT do not necessarily portray the unit's combat health accurately, nor do the systems forecast the sustainability of the unit's readiness. He added that a commander's assessments are the most important depictions of a unit's capabilities.

The Deputy Commandant stated that the Marine Corps agrees that consistency is the main issue identified by the audit and that they plan to modify MCO 3000.13A by using a standard maintenance data report from OOMA. He also stated that commanders will be encouraged to provide amplifying remarks using all current readiness tools to best portray to Headquarters, Marine Corps, the correct assessment of the squadron's capabilities.

The Deputy Commandant stated that the Marine Corps plans to implement the following changes.

- Revise MCO 3000.13A to state that for a readiness reporting of "R" rating (aircraft readiness) in DRRS-MC, the Marine Corps will use present state data from OOMA. The estimated completion date of the revision is October 31, 2018.
- Conduct Operations Officer and Aviation Maintenance Officers training courses to augment DRRS-MC training. The estimated completion date is October 31, 2018, for Marine Forces Pacific and January 31, 2019, for Marine Forces Command.

- Implement Headquarters, Marine Corps' processes to review DRRS-MC reports monthly and compare the reports to the monthly Deputy Commandant for Aviation Readiness Briefs for accuracy and consistency. According to the Deputy Commandant, the action has been completed.

Our Response

Comments from the Deputy Commandant did not address the specifics of the recommendation; therefore, the recommendation is unresolved. Although the Deputy Commandant agreed to use present state data from OOMA to report aircraft readiness, he stated that OOMA and MACCRAT, when used in combination, can provide a more accurate assessment of a squadron's readiness. We identified that OOMA provides real-time, timely, accurate, and complete maintenance and flight information. MACCRAT is a tool used to track aviation readiness and relies on data from AMSRR, which is subjective in nature. MACCRAT also allows users to input, modify, and delete aircraft maintenance data. Therefore, it is unclear how the combination of OOMA and MACCRAT provides a more accurate readiness assessment than the use of OOMA alone. The Deputy Commandant should provide additional comments and supporting documents that identify how the two systems would provide a more accurate readiness assessment and whether the use of the systems will be required.

Recommendation 2

We recommend that the Deputy Commandant for Plans, Policies, and Operations, in coordination with the Deputy Commandant for Aviation:

a. Revise the Marine Corps Order 3000.13A to include a clear definition of present state, and clarify how the number of mission-capable aircraft should be reported in the mission essential task assessment and how a mission essential task should be properly reported as resourced.

Deputy Commandant for Plans, Policies, and Operations Comments

The Deputy Commandant for Plans, Policies, and Operations agreed to coordinate with the Deputy Commandant for Aviation to revise the Marine Corps Order 3000.13A. He stated that a revision of MCO 3000.13A is underway and will include a clear definition of present state, which will be defined and identified as a specific point in time within 24 hours of the submittal of the report. The revision will also clarify how the number of mission-capable aircraft should be reported in the MET assessment and how tasks should be properly reported as resourced. The estimated completion date for the revised MCO 3000.13A is October 31, 2018.

Our Response

Comments from the Deputy Commandant addressed all specifics of the recommendation; therefore, the recommendation is resolved. We will close the recommendation once we verify that MCO 3000.13A was revised to clearly define present state, and clarify how the number of mission-capable aircraft should be reported in the mission essential task assessment and how mission essential tasks should be properly reported as resourced.

b. Implement training on reporting readiness in accordance with the revised Marine Corps Order 3000.13A (Recommendation 2, above) for reporting units and organizations.

Deputy Commandant for Plans, Policies, and Operations Comments

The Deputy Commandant for Plans, Policies, and Operations agreed to coordinate with the Deputy Commandant for Aviation to implement training on the revised Marine Corps Order 3000.13A. He stated that a comprehensive update to the Web Based Training for readiness reporting system users has been funded and is underway. The estimated completion for the updated Web Based Training is January 1, 2019. The Deputy Commandant added that the Readiness Branch has a funded Mobile Training Team that performs quarterly training at unit locations and supports a classified, fully functioning training environment for users to practice creating and editing readiness reports.

Our Response

Comments from the Deputy Commandant addressed all specifics of the recommendation; therefore, the recommendation is resolved. We will close the recommendation once we verify that the Web Based Training aligns with the MCO 3000.13A revisions described in Recommendation 2.a and that the training is provided to personnel, including the commander and operations and maintenance personnel, at the reporting units and organizations.

c. Develop and implement procedures, in accordance with the revised Marine Corps Order 3000.13A, to ensure that intermediate commands verify the completeness and accuracy of their subordinate units' readiness reports.

Deputy Commandant for Plans, Policies, and Operations Comments

The Deputy Commandant for Plans, Policies, and Operations agreed to coordinate with the Deputy Commandant for Aviation to improve audit compliance with MCO 3000.13A requirements. He stated that the Marine Corps funded and contracted two system updates with the DRRS-MC vendor. The initial system update is an automated email sent to the intermediate command when a report is

submitted, which will be implemented in the September 2018 release of DRRC-MC. A second update will provide a more detailed status for all users to identify when a report is submitted late, is reviewed, or is submitted but not reviewed. The estimated completion date for that update is May 31, 2019.

Our Response

Comments from the Deputy Commandant did not address the specifics of the recommendation; therefore, the recommendation is unresolved. The DRRS-MC updates appear to focus on ensuring that the intermediate command is notified when a report is submitted for review and allowing users to track the report's review status; however, the updates do not appear to address ensuring the accuracy and completeness of the data in those reports. Therefore, the Deputy Commandant should provide additional comments specifying how the intermediate commands will verify the completeness and accuracy of their subordinate units' readiness reports in accordance with MCO 3000.13A.

Appendix

Scope and Methodology

We conducted this performance audit from October 2016 to June 2018 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient appropriate evidence to provide a reasonable basis for our finding and conclusion based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our finding and conclusions.

The Marine Corps' three active air wings (1st, 2nd, and 3rd MAWs) include 19 tactical F/A-18 and CH-53E squadrons. The audit team did not visit 1st MAW because 2nd and 3rd MAW accounted for 17 of the 19 F/A-18 and CH-53E tactical squadrons. The audit team non-statistically selected 11 of the 17 tactical squadrons due to squadron availability and time constraints. Because one F/A-18 squadron converted from the F/A-18 airframe to the F-35 airframe during the audit, the squadrons decreased from 11 to 10.

We performed site visits and interviewed personnel at the following locations.

- Office of the Deputy Commandant of the Marine Corps for Aviation, Washington, D.C.
- Headquarters, 2nd MAW, Cherry Point Marine Corps Air Station, North Carolina
    - Headquarters, MAG 29, New River, North Carolina
        - HMH 366
        - HMH 461
        - HMH 464
    - Headquarters, MAG 31, Beaufort, South Carolina
        - VMFA 122
        - VMFA 251
        - VMFA(AW) 224
        - VMFA(AW) 533
- Headquarters, 3rd MAW, Miramar Marine Corps Air Station, California
    - Headquarters, MAG 11, Miramar, California
        - VMFA 314
        - VMFA 323
    - Headquarters, MAG 16, Miramar, California
        - HMH 361
        - HMH 466

We interviewed personnel to discuss their roles and responsibilities and how squadrons reported readiness. We reviewed Marine Corps guidance to identify relevant data as it pertains to readiness reporting. We also reviewed Marine Corps guidance for the AMSRR and OOMA systems.

We analyzed the core MET Assessment section of the DRRS-MC reports for the 10 squadrons from December 2017 through February 2018. We compared the values in the DRRS-MC reports against Marine Corps guidance for the MET requirements. Lastly, we determined whether the squadron commanders used present state when reporting their DRRS-MC reports.

Use of Computer-Processed Data

We used computer-processed data to perform this audit. Specifically, we extracted data reports from DRRS-MC and analyzed the data to determine whether squadron commanders were accurately reporting aircraft readiness. We identified inconsistencies and inaccuracies related to the squadrons' aircraft readiness. To assess the reliability of the data, we contacted the squadron commanders, as well as MAG and MAW officials, to gain an understanding of the inconsistencies and inaccuracies identified in the DRRS-MC reports. The inconsistencies and inaccuracies were due to lack of oversight and unclear guidance, as discussed in our finding. Therefore, we determined that the data in DRRS-MC, along with information obtained from Marine Corps officials, were sufficiently reliable to support our finding and conclusion.

Prior Coverage

During the last 5 years, the DoD Office of Inspector General (DoD OIG) issued one report addressing Marine Corps Aviation squadron readiness.

Report No. DODIG 2014-001, "(U) MV-22 Squadrons Could Improve Reporting of Mission Capability Rates and Readiness," October 23, 2013. This report is classified and is exempt from public release.

Management Comments

Marine Corps

DEPARTMENT OF THE NAVY
HEADQUARTERS, UNITED STATES MARINE CORPS
3000 MARINE CORPS PENTAGON
WASHINGTON, DC 20350-3000

IN REPLY REFER TO:
7500
DMCS-A
23 Jul 18

From: Head, Audit Coordination, Office of the Director, Marine Corps Staff
To: Program Director for Readiness and Global Operations, Office of Inspector General, U.S. Department of Defense

Subj: UNITED STATES MARINE CORPS AVIATION SQUADRON AIRCRAFT READINESS REPORTING (OFFICIAL DRAFT AUDIT REPORT PROJECT NO. D2017-D000RF-0034.000 DATED JUNE 5, 2018)

Ref: (a) DODIG Memorandum for Naval Inspector General of June 5, 2018

Encl: (1) U.S. Marine Corps Official Responses

1. Reference (a) requested U.S. Marine Corps management comments to the subject audit report and its recommendations.

2. Enclosure (1) provides the Headquarters Marine Corps (HQMC) Deputy Commandant for Aviation responses to the subject report and its recommendation 1, and the HQMC Deputy Commandant for Plans, Policies, and Operations responses to the subject report and its recommendations 2.a, 2.b, and 2.c.

3. We appreciate the opportunity to respond to the report.

4. For questions regarding the enclosure, I can be reached at [redacted]

CHARLES K. DOVE

Copy to:
NAVINSGEN (N14)
IGMC
CL
DC, P&R (MCMICP)
DC, AVN
DC, PP&O

Marine Corps (cont'd)

DEPARTMENT OF DEFENSE INSPECTOR GENERAL (DODIG)
DRAFT REPORT DATED 05 JUNE 2018, PROJECT # D2017-D000RF-0034.000

"UNITED STATES MARINE CORPS AVIATION SQUADRON AIRCRAFT READINESS REPORTING"

UNITED STATES MARINE CORPS COMMENTS

RECOMMENDATION 1: DODIG recommends that the Deputy Commandant for Aviation, Headquarters Marine Corps, require all reporting units and organizations use the Optimized Organizational Maintenance Activity system as the sole source for reporting aircraft readiness.

HQMC DEPUTY COMMANDANT FOR AVIATION RESPONSE TO RECOMMENDATION 1: Concur, with comments. The Optimized Organizational Maintenance Activity (OOMA) system feeds the Marine Aviation Commanders Combat Readiness Assessment Tool (MACCRAT) which allows the commander to accurately assess the maintenance practices of the unit. Combined, these systems focus the squadron's efforts and provide supporting and higher agencies the necessary visibility to support the readiness requirements of each squadron. Independently, the systems do not necessarily portray the unit's combat health accurately, nor do these systems forecast the sustainability of the unit's readiness. It cannot be overstated that a commander's assessments are the most important depictions of a unit's capabilities.

The Marine Corps agrees that consistency is the main issue that the audit discovered, and we plan to modify Marine Corps Order (MCO) 3000.13A by utilizing a standard maintenance data report from OOMA.

Commanders will be encouraged to provide amplifying remarks utilizing all current readiness evaluation tools to best portray to HQMC the correct assessment of their squadrons' capabilities.

The Marine Corps plans to implement the following:

1. Rewrite portions of MCO 3000.13A to state that for readiness reporting of "R" rating in DRRS-MC, we will use present state data from OOMA. Our estimated completion date is 31 October 2018 for completing revisions to MCO 3000.13A.
2. Operations Officer and Aviation Maintenance Officer training courses to augment DRRS-MC training will be conducted at Marine Forces Pacific by 31 October 2018 and at Marine Forces Command by 31 January 2019.
3. HQMC implemented processes to review DRRS-MC reports monthly and compare the reports to the monthly Deputy Commandant for Aviation Readiness Briefs for accuracy and consistency. These implemented processes will remain in place to provide improved oversight.

1 Encl (1)

Marine Corps (cont'd)

RECOMMENDATION 2.A.: DODIG recommends that the Deputy Commandant for Plans, Policies, and Operations, in coordination with the Deputy Commandant for Aviation, revise the Marine Corps Order 3000.13A to include a clear definition of present state, and clarify how the number of mission capable aircraft should be reported in the mission essential task assessment and how a mission essential task should be properly reported as resourced.

HQMC DEPUTY COMMANDANT FOR PLANS, POLICIES, AND OPERATIONS RESPONSE TO RECOMMENDATION 2.A.: Concur. Revision of MCO 3000.13A is underway, in coordination with the Deputy Commandant for Aviation, and will include a clear definition of present state and will clarify how the number of mission capable aircraft should be reported in the mission essential task assessment and how a mission essential task should be properly reported as resourced. The revision to MCO 3000.13A will be accomplished in close cooperation with Offices of the Deputy Commandant for Aviation, as they have the subject matter expertise for determining the criteria for how mission capable aircraft are reported. The Deputy Commandant for Plans, Policies, and Operations (DC PP&O) can provide a more specific general standard for all unit types, including aviation squadrons, and will require that "present state" be defined and identified as a specific point in time within 24 hours of the submittal of the report. DC, PP&O is working on improving the use of data feeds from authoritative data sources to reduce the user workload and improve accuracy, and may allow for the reporting to be fully automated from the authoritative aircraft maintenance system. To allow Marine Corps Aviation, Readiness, and Training Communities the opportunity to coordinate the revisions and implement the change to the MCO, the estimated completion date for revision of MCO 3000.13A is 31 October 2018.

RECOMMENDATION 2.B.: DODIG recommends that the Deputy Commandant for Plans, Policies, and Operations, in coordination with the Deputy Commandant for Aviation, implement training on reporting readiness in accordance with the revised Marine Corps Order 3000.13A (Recommendation 2.a, above) for reporting units and organizations.

HQMC DEPUTY COMMANDANT FOR PLANS, POLICIES, AND OPERATIONS RESPONSE TO RECOMMENDATION 2.B.: Concur. The Deputy Commandant for Plans, Policies, and Operations' Readiness Branch, in coordination with the Deputy Commandant for Aviation, has a funded Mobile Training Team (MTT) that performs training at unit locations quarterly. Each Marine Expeditionary Force (MEF) Readiness Officer also supports unit training throughout the year. The Readiness Branch supports a classified fully functioning training environment for users to practice creating and editing readiness reports. The Readiness Branch also provides inspectors for the Inspector General of the Marine Corps (IGMC) that conduct unit and command inspections of their readiness programs, and will also examine unit training and compliance. A funded, comprehensive update to the Web Based Training for readiness reporting system users is also underway with an anticipated delivery at the beginning of Calendar Year 2019 (1 January 2019).

Marine Corps (cont'd)

The curriculum for these training classes will be amended to address the DODIG recommendations in this report. The estimated completion date for recommendation 2.b. is 1 January 2019.

RECOMMENDATION 2.C.: DODIG recommends that the Deputy Commandant for Plans, Policies, and Operations, in coordination with the Deputy Commandant for Aviation, develop and implement procedures, in accordance with the Marine Corps Order 3000.13A, to ensure that intermediate commands verify the completeness and accuracy of their subordinate units' readiness reports.

HQMC DEPUTY COMMANDANT FOR PLANS, POLICIES, AND OPERATIONS RESPONSE TO RECOMMENDATION 2.C.: Concur. The Deputy Commandant for Plans, Policies, and Operations, in coordination with the Deputy Commandant for Aviation, developed and implemented the following procedures, in accordance with Marine Corps Order 3000.13A, to ensure that intermediate commands verify the completeness and accuracy of their subordinate units' readiness reports: Two engineering change proposals (ECPs) have been funded and contracted with the Defense Readiness Reporting System-Marine Corps (DRRS-MC) vendor. The initial system update is an automated email to the intermediate command when a report is submitted and will be implemented in the September 2018 release of DRRS-MC. An intermediate command supervision update is scheduled for delivery in the May 2019 release that will display a more detailed status so it will be clear to all users if a report was submitted late, was reviewed, or was submitted, but not reviewed. This will improve our ability to audit compliance with MCO 3000.13A requirements. The estimated completion date for full implementation of recommendation 2.c. is 31 May 2019.

Acronyms and Abbreviations

AMSRR	Aviation Maintenance Supply Readiness Reporting
DRRS-MC	Defense Readiness Reporting System–Marine Corps
HMH	Marine Heavy Helicopter Squadron
MACCRAT	Marine Aviation Commanders Combat Readiness Assessment Tool
MAG	Marine Aircraft Group
MAW	Marine Aircraft Wing
MCO	Marine Corps Order
MET	Mission Essential Task
OOMA	Optimized Organizational Maintenance Activity
RBA	Ready Basic Aircraft
VMF	Marine Fighter Attack Squadron
VMFA	Marine All Weather Fighter Attack Squadron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