Based on these principles, ORM is a tool intended to help us Identify Hazards, Assess Hazards, Make Risk Decisions, Implement Controls, and Supervise.

Marine Aviation must continue to use the risk management process and adhere to the principles of risk management.

At a minimum, all briefs should answer two questions: (1) What were the risks identified in this mission or course of action? and (2) What has been done to reduce those risks to an acceptable level? To aid this process, standardized instructions and risk assessment tools will be used by all of our Aircraft Wings. By rigorously utilizing the risk management process in the planning stage, we have the greatest potential for identifying hazards and reducing risk, thereby improving our opportunity for mission success.

Squadron Assistance Risk Assessment (SARA) is an operational risk management, training management and flight scheduling software tool currently in use throughout the FMF. All flying squadrons will use SARA to assess risk in the flight schedule, publish the schedule and manage aircrew data. HQMC will develop common aircraft risk models. These risk models will be evaluated and adjusted in accordance with applicable standardized instructions. MCCDC Aviation Training Branch has assumed responsibility for the short-term refinement of SARA and follow-on implementation of SMARTR. SMARTR is the long-term aviation automation tool to be used throughout Marine Aviation.

Operational Risk Management Goals

1. *Fully implement ORM.*
2. *Commanders periodically review individual ORM aircrew risk status.*
3. *ORM Standardization Goals:*
   - *All like-ACE units use the same risk model.*
   - *All ACE units review standard risk models on a regular basis.*
   - *All squadrons use the latest version of SARA.*

Military Flight Operations Quality Assurance (MFOQA)

Digital aircraft like the F/A-18, AV-8B, MV-22 and KC-130J are in the fleet now or will soon be introduced in large numbers. In the near future, more aircraft will be equipped with Flight Data Recorders and 1553 data buses. Military Flight Operations Quality Assurance (MFOQA) is a process that can capitalize on the data acquired from these new systems. MFOQA involves the regular downloading of flight data from available sources, analyzing that data for exceedences and trends, and taking action on the information gained. Furthermore, the downloaded data can be converted into animation to provide a valuable debriefing tool. Commercial aviation has discovered that an effective Flight Operations Quality Assurance process results in increased readiness and a reduction in unscheduled maintenance. Full utilization of this process in Marine Aviation units can enhance training and readiness and reduce maintenance costs.

Military Flight Operations Quality Assurance (MFOQA) Goal

1. *Conduct a demonstration project of the MFOQA process to validate its potential.*

Logistics

Aircraft Material Condition

The Marine Corps is our Nation's premier crisis response force...first on the scene and first to fight. While modernization remains a high priority, the legacy aircraft that we fly today must serve the Corps for many years to come. We must carefully maintain, preserve, and enhance the capability of our legacy aircraft and systems. To support this effort, our goal is to accomplish the following: (1) Ensure all squadrons, deployed, non-deployed, and reserve are maintained at 100% PAA, (2) Meet or exceed the operational category "B" aircraft goals for MC/FMC, as listed in OPNAVINST 5442.4M, for all aircraft assigned to active and reserve squadrons, to include FRS squadrons, (3) Complete SDLM cycles without extension of the negotiated estimated completion date, (4) Increase the priority of corrosion control efforts by making every effort to ensure that aircraft coming out of scheduled corrosion special inspections have minimal outstanding corrosion discrepancies, and (5) Ensure that no "A" status aircraft remain in a non-flying status for more than 60 days.

Additionally, we will continue with the standardized policy of limiting outstanding maintenance discrepancies for each T/M/S aircraft. The following guidelines for awaiting maintenance (AWM) discrepancies apply:

F/A-18A/C/D	*10*
AV-8B	*10*
KC-130F/R/T	*25*
EA-6B	*10*
CH-46E	*15*
MV-22B	*20*
CH-53D/E	*25*
UH-1/AH-1	*10*

The Marine Corps insists on flying safe aircraft, but we must also insist on "healthy aircraft," aircraft that are professionally maintained in order to achieve maximum reliability, performance and combat capability.

Aircraft Material Condition Goals

1. *All squadrons maintained at 100% PAA.*
2. *Meet or exceed the established operational category "B" aircraft goals for MC/FMC rates as specified in OPNAVINST 5442.4 (series).*
3. *Complete SDLM cycles within the estimated completion date.*
4. *Corrosion: Dedicate increased priority to treating and preventing corrosion by making every effort to ensure aircraft coming out of scheduled corrosion special inspections have minimal corrosion discrepancies.*

   Require annual training for all aircrew and maintenance personnel in the corrosion identification, prevention and correction process.
5. *Ensure no "A" status aircraft remains in a non-flying status for more than 60 days.*

ACE Deployability

The rapid, light and flexible deployment of aviation logistics personnel, support assets, and command and control systems are key enablers that give Marine Aviation the ability to enter an operational area and act decisively in support of the MAGTF. Accordingly, Marine Aviation has two ongoing efforts to enhance its capacity to support Marines anywhere in the world.

The first of these is the Marine Aviation Logistics Support Program (MALSP). It provides the ability to rapidly deploy Marine aviation assets using expeditionary support packaging, geo-prepositioning and aviation logistics support ships (T-AVBs). As Marine Aviation continues to frequently deploy in support of regional and small scale contingencies, it has become increasingly essential that aviation logistics planners be prepared to rapidly develop aviation logistics support packages that not only fulfill necessary support requirements but do so with the least amount of required airlift. To support the efforts of our frontline aviation logistics planners, we will steadfastly pursue the development and fielding of the Aviation Logistics Planning Module (ALPM) to provide the planner the ability to rapidly define aviation logistics support assets required to support various aircraft mixes. The ability to develop accurate Time Phased Force Deployment Data (TPFDD) within a 72-hour period remains essential to Marine Aviation's ability to get to the fight.

Airlift constraints have also necessitated that deliberate planning be conducted to ensure that only those logistics support assets required to support the initial deployment of Marine aircraft be deployed. As such, the Remote Expeditionary Support Package (RESP) is the means to identify the initial logistics support package to be deployed. It remains critical to the deployability and effectiveness of Marine Aviation that continuous refinement of RESPs be conducted.

The second effort is MACCS convergence. The goal of this effort is to dramatically decrease the physical size of MACCS equipment and to repackage it in mobile configurations. By taking full advantage of modern technology, MACCS convergence will provide Marine Aviation with equipment that is simultaneously more mobile, transportable and possesses increased capabilities. The Multi Role Radar System (MRRS) exemplifies this effort. Specifically, MRRS will replace three current radar systems and will fit into two HMMVs with trailers. It is not only more deployable but has superior capabilities to enhance Marine Aviation's ability to generate decisive effects on the battlefield.

ACE Deployability Goals

1. *Develop and field the Aviation Logistics Planning Module (ALPM).*
2. *Develop RESPs in support of all deliberate war plans.*

Aviation Ground Support (AGS)

The AGS capability provided by the Marine Wing Support Group ensures the unique, expeditionary nature of Marine Aviation. The subordinate Marine Wing Support Squadrons provide all essential AGS requirements for the ACE.

The ability of the ACE to provide on and off-road aircraft refueling capability at expeditionary airfields, forward arming and refueling points (FARPs) and other unimproved sites is compromised by the lack of a replacement for the M931/M970 refueler. The M931/M970 has age-related reliability and supportability problems that are severely degrading equipment readiness. We will resolve this developing capability gap through a near and long term strategy. The near term replacement for on-road refueling is the Aviation Refueling Capability (ARC). The ARC is a non-developmental, commercial refueler that can be fielded quickly to replace the aging fleet of M931/M970 refuelers. FY02 funding is in place for the purchase of 97 of 138 required units. Aviation will seek funding to complete the full fielding of the ARC.

To meet the off-road refueling requirement, we will advocate the development of the off-road aviation refueling capability in our POM cycles. Conceptually, this system will consist of two sub-components: two flat rack fuel tanks and one tactical prime mover vehicle. Each flat rack is comprised of a 2500-gallon tank and pump unit. With the exception of pump capacity, this refueling system will be common with off-road refuelers supporting the GCE and CSSE.

Ground Support Goals

1. *Obtain funding to field mobile refueling systems.*

Organizational Change

New equipment and new capabilities create opportunities to reconsider existing organizations and doctrine. As Marine Aviation fields modern advanced platforms, whether these are aircraft or refueling vehicles, it must reexamine its structure to ensure this equipment and the Marines who operate it are organized in ways that allow them to maximize their contribution to the MAGTF. Marine Aviation must carefully evaluate the modern technological trends that have already resulted in flattened organizational structures in much of the private sector and ascertain whether it needs to similarly transform its organizations. In theory, the adaptation of such organizational structures will improve coordination, reduce reaction times, and free up more Marines to fly aircraft or to "turn wrenches."

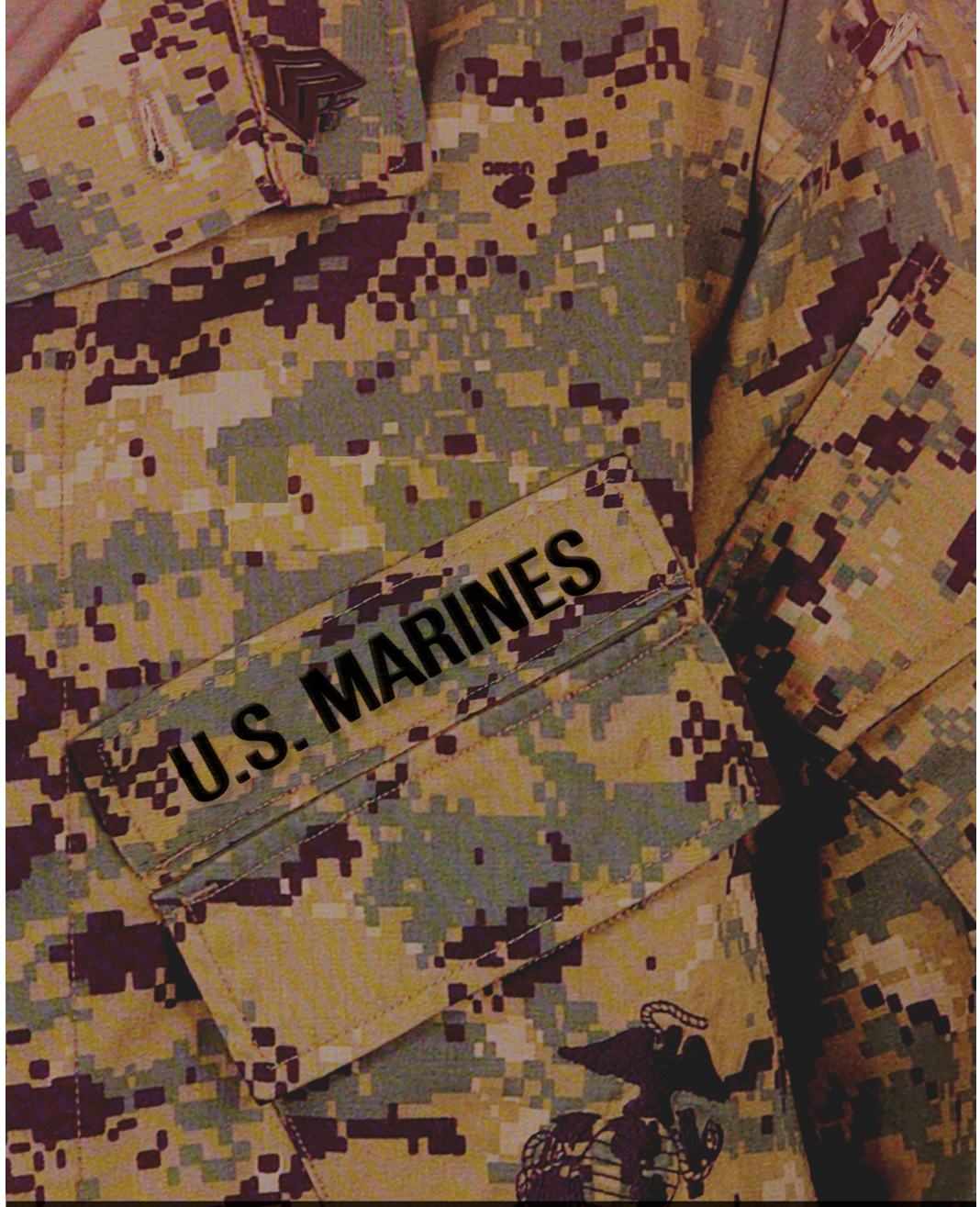
The MACCS is an ideal place to start these organizational experiments. As noted earlier, the MACCS is scheduled to re-equip itself later this decade with far more capable, flexible, mobile, and interoperable equipment. The contrast between such systems and the current legacy ones is very apparent. It is doubtful that organizations developed to support legacy systems are also the best ones for the new equipment under development. By experimenting with alternative organizations, such as cross functional commands now, Marine Aviation can ensure that it is ready to take full advantage of the capabilities of the new equipment as soon as it is fielded.

Transformation/Modernization

The Deputy Commandant for Aviation has established Transition Task Forces (TTFs) to ensure the effective introduction of new aviation weapons systems into the operating forces. These TTFs are the key link between the immediate goals of the MACP and the long term modernization goals outlined in the Aviation Implementation Plan (AIP). TTFs are in place for the following aviation programs: MV-22, KC-130J, UH-1Y/AH-1Z, and JSF. TTFs for Aviation Command & Control and Aviation Logistics will soon be implemented.

The TTF conferences provide a proactive mechanism for the Operational Forces, both active and reserve, to act in concert with the program office and acquisition agencies in the formulation and implementation of each of the T/M/S introduction plans. The TTF events provide a forum for the operational forces to address and prioritize community issues and concerns, as well as to recommend changes that enhance the transition strategy. The TTF conference's are designed to achieve specific objectives, to include: providing an overview of the program, transition plan, concept of employment, Developmental & Operational Test & Evaluation, transition logistics, aviation manpower, and the TTF/ Working Group Process.

Following introductory presentations, conference attendees split into focused Cross Functional Teams (CFTs) for detailed discussions of issues. The CFTs discuss the following issues: Doctrine, Organization, Training and Education, Equipment, and Support & Facilities (DOTES). The conferences are well attended and include representation from various operational commands and agencies interested and responsible for the successful transition of the assets into the Marine Corps inventory. The CFTs utilize web-enabled, automated action chits to capture the requirements and identify specific events to be monitored and properly budgeted for in the POM process. This process enables HQMC to capture the requirements necessary to successfully introduce combat-ready T/M/S aircraft into the operational forces. For more information on Marine Corps Aviation Transformation, visit the MCAT web site at: https://usmc-aviation.org.



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