COMNAVAIRFOR INSTRUCTION 3500.1D

Subj: SQUADRON TRAINING AND READINESS

Ref: (a) OPNAVINST C3501.2J
     (b) OPNAVINST 3000.15
     (c) OPNAVINST 3500.38B
     (d) OPNAVINST 3500.39B
     (e) OPNAVINST 3501.360
     (f) OPNAVINST 3710.7U
     (g) NTRP 1-03.5
     (h) COMPTFORCOMINST 3501.3
     (i) COMNAVAIRFORINST 3500.2B
     (j) COMNAVAIRFORINST 3500.38A
     (k) COMNAVAIRFORINST 3502.1C

Encl: (1) VFA/VFC Training Matrix
      (2) VAQ Training Matrix
      (3) VAW Training Matrix
      (4) VRC Training Matrix
      (5) VP Training Matrix
      (6) VPU Training Matrix
      (7) VQ(E) Training Matrix
      (8) VQ(T) Training Matrix
      (9) VR (C-9/C-20/C-40/C-130) Training Matrix
      (10) HS (SH-60F/HH-60H) Training Matrix
      (11) HSC (Expeditionary) Training Matrix
      (12) HSC (CVW) Training Matrix
      (13) HSM (SH-60B) Training Matrix
      (14) HSM (MH-60R) Training Matrix
      (15) HM (MH-53E) Training Matrix
      (16) Number of Authorized Crews
      (17) FRTP Ordnance Expenditure Plan
      (18) Glossary of Terms

Appendix A: Matrix Format
Appendix B: Ordnance Category Delineation
Appendix C: Interim Training Matrix
Appendix D: Equivalent Sortie Length to Task Matrix
1. **Purpose.** This is a joint Commander, Naval Air Force, Pacific (COMNAVAIRPAC)/Commander, Naval Air Force, Atlantic (COMNAVAIRLANT) instruction. To promulgate specific aircraft training matrices for squadron flight crews of the Naval Air Force and provide guidance for squadron Training and Readiness (T&R) reporting per references (a) through (k). These matrices are designed to quantify proficiency in the skills required to execute the Navy Mission Essential Tasks (NMETs) listed in each community's Navy Mission Essential Task List (NMETL). The matrices are also linked to tasks in the Required Operational Capabilities and Projected Operating Environment (ROC/POE) instructions.

2. **Cancellation.** This instruction cancels both COMNAVAIRFORINST 3500.1C CH-1 and COMNAVAIRFORINST 3500.1B CH-2.

3. **Discussion.** This instruction sets forth comprehensive squadron flight crew T&R requirements to conduct a mission and/or task based on the conditions and standards within the NMETL and Type Wing Commander Wing Training Manuals (WTM). The T&R instruction will serve as a training guide to be used throughout the Fleet Readiness Training Plan (FRTP). This instruction provides guidance for carrying out the COMNAVAIRPAC/COMNAVAIRLANT approved training policy. The T&R matrices for each Type/Model/Series (T/M/S) are located in enclosures (1) through (15) and may be found in the COMNAVAIRFOR Readiness Reference Tool located at the COMNAVAIRFOR SharePoint N4B2 Site: https://www.portal.navy.mil/comnavairfor/N40/N4B2/default.aspx and on the SHARP website at https://sharp.nmci.navy.mil/rrt/start.htm. Enclosure (16) is a T/M/S breakdown of authorized aircrew that was used in the generation of resources required to execute these matrices and is based on the current ROC/POE. Enclosure (17) provides a description of the FRTP ordnance distribution and execution plan. Enclosure (18) is the Glossary of Terms. Appendix A is the matrix format description, Appendix B is the ordnance category delineation and calculations by T/M/S, Appendix C is reserved for interim T&R matrices for units training to specialized missions that are outside the scope of their community training matrices. Appendix D details the equivalent sortie length to task matrix which enables aircrew to log the same task multiple times in a single sortie assuming required extended flight times have been achieved.
4. **General Guidance**

   a. **Training Policy Overview.** The mission of Naval Aviation training is to prepare tactically and technically skilled aircrew to win at war. To develop the combat skills required to accomplish this mission, Naval Aviation relies on many interrelated components: Capabilities-Based Training and Readiness (CB T&R) Matrices, the Flying Hour Program (FHP), Non-Combat Expenditure Allocation (NCEA) ordnance, simulation, Type Wing Advanced Readiness Programs (ARP), Air Combat Training Continuum (ACTC), and FRTP major events. This instruction provides commanding officers with a tool to optimize readiness based on NMETs and a Flying Hour Program that generates phased and sustainable readiness throughout the FRTP.

   b. **Training Phases.** The overall training objective of Naval Air Force units is to achieve the highest level of combat readiness as efficiently as possible with the resources available. Although training is continuous, it is recognized that readiness levels will vary depending on the phase within the FRTP as a part of the Fleet Response Plan (FRP). The FRTP is divided into training phases as described in reference (b). Available resources will be allocated based on a phased readiness profile, with the highest priority given to deployed units and units in pre-deployment workups and sustainment. For detachment-based squadrons, resources will be allocated based on individual detachment requirements.

   c. **Training Matrices.** The training matrix for each T/M/S consists of a Task to Skills Matrix. The Task to Skills Matrix for each T/M/S was developed using the Task Option List and the Squadron Requirements Page (SRP) from the Sortie-based matrix. When tasks are executed, certain critical skill sets are obtained and used to build individual and crew proficiency. Prior training and resource expenditures under the Sortie-based T&R matrices were not lost, and direct ties to ACTC and squadron-level requirements were maintained. The term “aircrew” is used throughout this instruction to refer to any member of an aviation crew who logs training that contributes to a readiness matrix in SHARP. This is meant to include Naval Aviators, Naval Flight Officers and Naval Aircrewmen who contribute to the readiness of a squadron or detachment. Skill sets specific to each T/M/S matrix can be obtained through flights and simulators. The Task List is a list of T/M/S training tasks that describes the flights and simulators required to obtain
specific skills. The purpose of the training matrices is to provide guidelines for preparing aircrew to perform all assigned missions and tasks. These matrices are designed to develop proficiency in the skills required to execute the mission tasks listed in the NMETL for each community.

(1) Each T/M/S T&R matrix consists of the Task List, the Simulator Contribution Section, the Task to Skills Matrix, the Skills List, the Squadron/Detachment Requirements Section (note: for the purposes of this instruction this section will be called the Squadron Requirements Section or SRS), the Navy Mission Essential Task List (NMETL), a Resource Summary Page (RSP), an FRS Baseline and an Air Combat Training Continuum (ACTC) Mapping Page. Definitions, format and utilization methodology are discussed in Section B, below.

(2) The specific training matrices are presented in enclosures (1) through (15), and appendix C if applicable. These matrices can be found on the COMNAVAIRFOR Readiness Reference Tool on the Share Point site listed above or on the SHARP website link page.

(3) Commanding Officers (CO) are charged with overall training matrix execution for their respective squadrons. It is the commanding officer’s responsibility to understand this instruction in order to maximize its application to unit readiness.

(4) An interim training matrix may be developed when a squadron or detachment is tasked with a mission that is either outside the community’s normal capabilities or responds to a Request for Capability (RFC). When a unit trains to an interim matrix, they shall be resourced to that matrix until the special mission or RFC expires. At that time, the unit will train and be resourced to their normal community matrix.

d. Simulator Usage. Lead Type Wings will determine the readiness contribution of simulators under their respective wings. The simulator section under the Squadron Training Matrix Format description outlines how simulators and other aircrew training devices are factored into the T&R matrix. The simulator contributions in the matrix are a requirement and shall be flown in an approved trainer when squadrons are co-located with a mission capable simulator.
e. FRS Baseline. To ensure a readiness vacuum is not created, and to capture the inherent readiness of an FRS graduate, the Type Wing shall generate an FRS Baseline. The FRS Baseline will be entered into the receiving squadron’s SHARP database upon arrival of the FRS graduate. The FRS Baseline is further described in the Squadron Training Matrix Format description and the format is provided in appendix A. In all cases if the new crew can be more accurately baselined with actual training documented in previous flight records that training may be logged in the place of the FRS baseline.

f. Air Combat Training Continuum (ACTC) Integration. The T&R instruction was designed with the ACTC program for each T/M/S as an integral component. Air Wing, Type Wing and squadron Commanding Officers must ensure that a robust ACTC program is in place and functioning in order to achieve optimized readiness. The ACTC program is a five-level program comprised of academics, computer based courseware, simulators and flight events. The program provides a syllabus outline for the training and evaluation of post-FRS pilots, Naval Flight Officers, and Aircrewmen at each of the experience levels defined below:

<table>
<thead>
<tr>
<th>LEVEL</th>
<th>QUALIFICATION/DESIGNATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1 (I)</td>
<td>FRS Complete</td>
</tr>
<tr>
<td>L2 (II)</td>
<td>Intermediate (i.e., Combat Wingman)</td>
</tr>
<tr>
<td>L3 (III)</td>
<td>Positional (i.e., Combat Section Lead, ASW TACCO)</td>
</tr>
<tr>
<td>L4 (IV)</td>
<td>Advanced (i.e., Combat Division Lead, Mission Commander)</td>
</tr>
<tr>
<td>L5 (V)</td>
<td>Weapons and Tactics Instructor (WTI)</td>
</tr>
</tbody>
</table>

(1) Reference (k) details the purpose, objectives and scope of the ACTC program.

(2) To ensure a proper link between the CB T&R and the ACTC Program, Type Wings shall generate an ACTC Mapping Page. The ACTC Mapping Page is further described in the Squadron Training Matrix Format description and the format is provided in Appendix A.

g. General NATOPS Requirements. Flight crews are expected to achieve and maintain their individual flight qualification requirements for general aviation skills per reference (f).
h. Wing Training Manual (WTM). The T&R Instruction is the foundation upon which the WTM is based. The WTM sets forth requirements for individual aircrew training and defines the resources required. The WTM is intended to provide community-specific details required to successfully execute training. As a minimum, the WTM (and addendums) shall include:

(1) A detailed description of each training task in the task to skills section of the matrix.

(2) The prerequisites for each training task in the task to skills section of the matrix.

(3) The specific training objectives of each task that are aligned with T/M/S NMETLs.

(4) The requirements for completion and pass/fail criteria for each task in the Task List. Initial criteria will be based on fleet experience or existing training documents and will be adjusted as required after periodic review of aircrew performance data.

(5) The Measures of Performance (MOP) and Measures of Effectiveness (MOE) shall be used to evaluate each task. Debrief sheets will be included when applicable.

(6) WTM performance metrics shall be linked and consistent with each community’s NMETL standards to ensure uniform Current Readiness Assessments.

(7) An Enlisted Aircrewman Training Syllabus (other than the simulators and flights already listed in the matrix, if required).

(8) Ensure that a defined link between ACTC flight and simulator events directly to T&R Tasks is accomplished.

(9) Clearly define special qualification definitions and requirements (i.e., FAC A, Strike Lead).

(10) Clearly define stand-alone academic requirements that are not tied directly to a specific T&R Task.

(11) Clearly define squadron ground training requirements. Squadrons shall implement a ground-training
program to support the flight-training syllabus, satisfy the requirements of mission qualifications and maintain the professional standards required of Naval Aviators and Aircrewmens.

1. Forward Deployed Naval Forces. Forward Deployed Naval Forces (FDNF) are required to maintain high readiness standards throughout the FRTP to support Secretary of Defense approved Operational Plans (OPLANs) and short notice deployments. A modified version of the FRTP-based Training and Readiness model accounts for the unique circumstances influencing FDNF units. FDNF units typically participate in shorter deployments, multiple times in one year. They may not have ample time after a deployment for Post Deployment Leave (PDL) as they must prepare for the next deployment. Additionally, FDNF units must perform continuous training in preparation to deploy with little prior notice. Due to these constraints, FDNF units have a dynamic two year FRTP cycle which continues to repeat itself. This allows them to maintain a constant two year periodicity for squadron qualifications. Squadron requirements such as the ARP syllabus and weapons expenditures shall be based on this two year cycle, and will be completed within that periodicity. The FDNF Training and Readiness matrices will be the responsibility of the respective T/M/S Type Wing Commanders and reflect the specific requirements of the unique FDNF FRTP model. For the purposes of this instruction, FDNF units are defined as squadrons assigned to Carrier Air Wing (COMCRAIRWING) FIVE and HELICOPTER ANTI-SUBMARINE SQUADRON LIGHT FIVE ONE (to include Det 11).

j. Naval Air Force Reserve Squadrons (RESFORONs). RESFORONs will implement capabilities-based training to maintain combat ready crews that can be deployed in accordance with OPLAN requirements. Recognizing operational proficiency is a function of both experience and periodicity, the RESFORON capabilities based matrix is not tied to the active duty capabilities based matrix periodicity.

(1) Upon mobilization, RESFORONs will maintain their capabilities-based matrix.

(2) The COMNAVAIRFORRES staff will fund and manage the RESFORON Flight Hour Program (FHP).

(3) RESFORON capabilities-based training matrix will
determine the periodic training and evaluation requirements such as NCEA allotments, ARPs, and CQ/DLQ.

(4) The RESFORON matrices shall follow the same format and methodology as the Active Component T/M/S fleet matrices. RESFORON matrices (with the exception of VR) are located in the same enclosures as their Active Component.

(5) RESFORONS covered under this policy include squadrons assigned to Tactical Support Wing, Fleet Logistics Support Wing, HELSEACOMBATRON EIGHT FOUR, HELSEACOMBATRON EIGHT FIVE, HELICOPTER ANTI-SUBMARINE SQUADRON LIGHT SIX ZERO, PATRON SIX TWO and PATRON SIX NINE. HELMINRON FOURTEEN and HELMINRON FIFTEEN reserve components are governed by the Active Component HM matrix even though FHP funding is provided by COMNAVAIRFOR.

5. Squadron Training Matrix Format Description

a. Introduction. This section describes the methodology and format of a T/M/S Matrix, defines the Individual Aircrew Requirements Section (Task List and Skill List), Squadron Requirements Section, Navy Tactical Task (NTA) list, and discusses the relationships between the sections. Moreover, this section discusses the Resource Summary Page, the FRS Baseline, and Air Combat Training Continuum (ACTC) Mapping Page, and describes their relationship to the CB T&R Matrix.

b. Methodology. The CB T&R Matrix is comprised of two elements that contribute to NTA readiness. The Individual Aircrew Requirements Section (IARS) and the Squadron Requirements Section (SRS) combine to meet the training requirements of an NTA. Task requirements to gain credit for Skills are based on a Skill to periodicity relationship. The amount of training required by this relationship drives the resource requirements.

c. Phase Standards. The CB T&R matrix defines training requirements to ensure the proper readiness level for each NTA. Commanding Officers are responsible to their Immediate Superiors in Command (ISIC) and Type Commanders for completion of training requirements established for their units. The composition of a CB T&R Matrix is described in the paragraphs below. Format for a standardized CB T&R Matrix, including its sub-pages, can be found in Appendix A.

d. Individual Aircrew Requirements Section (IARS)
(1) Task List. The Task List for each T/M/S delineates the type of training that may be conducted during any flight. When a Task is logged, it is associated with certain skills as indicated by an "O" (Optional) or an "R" (Required) in the Task to Skill section of the matrix. Specific standards required to complete Tasks are delineated within each T/M/S WTM. Aircrew are considered to possess a given Skill when all required tasks ("R") and a sufficient number of optional tasks ("O") have been completed to satisfy the required number per aircrew position within a skill periodicity.

(2) Simulators. In each matrix, the Type Wing provides a list of simulators and aircrew trainers that provide an alternate means of obtaining those skills required to form skilled crews. The simulator contribution is depicted as a whole number of required or optional tasks that shall be obtained through simulation events vice through flight events in a skill’s respective periodicity. These numbers are listed at the bottom of the task to skill section of each matrix and are used to calculate the overall simulator fidelity percentage. The simulator contribution(s) for each skill shall be maximized when squadrons are co-located with operable mission capable simulators. Flight events can be used to replace simulator contributions only when units are unexpectedly deployed to a location that does not provide capable simulators or when simulators are consistently inoperable due to unscheduled maintenance. These numbers are listed at the bottom of the Task to Skill section of each matrix. Logging of simulator events shall be completed by using SHARP V5.1 or later to ensure that these skills and the training contribution they provide to an individual aircrew are properly documented and credited to the respective aircrew.

(3) Skill List. The Skill List is defined as the list of skills that aircrew are required to obtain to provide readiness to a given NTA. Examples of Skills may include items such as Basic Flight, Vertical Replenishment (VERTREP), and Close Air Support (CAS). The Skill list is broken down into the Production section and the Sustainment subsection. All skills will be listed as Production skills with a subset of skills being listed in the Sustainment subsection. Production skills that do not fall within the Sustainment subsection are defined as “Production only” Skills. In order to achieve the desired readiness necessary for deployment and due to the required resources of these skills, all attempts must be made to
accomplish "Production only" skills prior to the employability window, defined as the completion of Composite Training Unit Exercise (COMPTUEX) and Air Wing Fallon (AWF). For Naval Aviation units that are not a part of a Carrier Air Wing, the employability window is defined by the Type Wing and typically represents the time when a unit is able to deploy with full combat capability. Once a unit has reached the employability window, the unit will focus solely on the Sustainment subsection skills. "Production only" skills may still be completed, and counted towards readiness, but will not count against a unit if not completed during the employability window.

(4) Skill periodicity. The skill periodicity represents the number of times that a required or optional task must be logged within a given number of days to satisfy the skill requirement. Of the tasks designated for a particular skill all of the required tasks (R) must be logged at least once inside the periodicity while any combination of optional (O) or required (R) tasks can satisfy the remaining requirement. An "X" in the skill columns indicates which NTAs require that particular skill to create a skilled crew.

e. Required Skilled Crews. This column represents the targeted number of skilled crews in each individual MET. The number represented in the Required Skilled Crews column is the denominator of the Performance Factor (P_r) equation in cases where there are at least an equivalent number of crews on board. As individual skill sets expire the number of skilled crews will degrade.

f. Squadron/Detachment Requirements Section (SRS). These columns represent the experience factor (E_r) for the entire squadron or detachment. The numbers in these columns are whole numbers required to meet a given criteria.

(1) Each matrix SRS shall include, as a minimum, the following items:

(a) ACTC levels

(b) CVW Fallon (NMETL-based Assessment) (CVW squadrons only)

(c) COMPTUEX (NMETL-based Assessment) (CVW squadrons only)
(d) ARP (if applicable to the community)

(e) End to End or High Training Value Ordnance (as applicable)

(f) Flying Hour Requirement

(g) Type Wings may add other T/M/S specific qualifications to this section to include items such as NVG, DLQ, crews qualified on various weapon systems, ordnance expenditures by crew, TERF qualified crews, SAR, strike leads, and FAC-A crews. The "Required Skilled Crews" column, while not an SRS item, is required and should be shaded blue to indicate that it does not count in the SRS calculation. Requirements that do not relate to a particular NTA may be omitted from the SRS/NTA cell in the T/M/S's matrix.

(2) ACTC Levels. Once an individual aircrew achieves a given ACTC level, that qualification will remain current until the aircrew departs the squadron. ACTC levels are not tied to any FRTP cycle and can transfer between squadrons with the individual. ACTC levels for each aircrew MUST be accurately represented in SHARP for readiness calculations to be reliable.

(3) CVW Fallon Assessment. Successful completion of the CVW Fallon syllabus allows the unit to report SAT in the CVW Fallon column. The CVW Fallon Assessment is a squadron qualification and will remain SAT until the end of the FRTP cycle in which CVW Fallon was completed regardless of aircrew turnover.

(4) COMPTUEX Assessment. Successful completion of COMPTUEX allows the unit to report SAT in the COMPTUEX column. The COMPTUEX Assessment is a squadron qualification and will remain SAT until the end of the FRTP cycle in which COMPTUEX was completed regardless of aircrew turnover.

(5) Advanced Readiness Program (ARP). Successful completion of the community approved ARP allows the unit to report SAT in the ARP column. ARP is a squadron qualification and will remain SAT until the end of the FRTP cycle in which the ARP was completed regardless of aircrew turnover.

(6) Ordnance Expenditures. Ordnance is classified in three categories based on quantity and purpose: Training
Ordnance, High Training Value and End to End. These ordnance categories are based on the weapon's contribution to readiness.

(a) Training Ordnance. Training Ordnance is intended to provide repeated training for expenditure skills. Training Ordnance is defined by the total number of weapons expended in an FRTP by a unit’s current on board (COB) active crew members, divided by the number of current on board (COB) crew members. This value is then compared to the thresholds set in the SRS for each T/M/S. If the resulting value meets or exceeds the SRS threshold, that ordnance requirement is considered SAT. If the value is below the threshold, that ordnance requirement is considered UNSAT. Ordnance in this category remains tied to the individual, and no longer counts towards a unit’s readiness when the aircrew departs the unit. When a visitor is part of a crew that expends ordnance out of a unit’s NCEA that visitor’s contribution shall not contribute to that unit’s readiness. Ordnance category assignments and T/M/S specific business rules are described in Appendix B.

(b) High Training Value (HTV) Ordnance. High Training Value Ordnance is intended to provide aircrew with the opportunity to expend live or inert combat ordnance in a training environment. HTV Ordnance is defined by the total number of crew(s) that have expended an HTV weapon within an FRTP. This category is listed on the SRS as a whole number of crew(s) that are required to expend an HTV weapon within an FRTP. The number of crew(s) who have expended the requisite amount of a particular HTV weapon within the FRTP is compared to the thresholds set in the SRS. If the resulting value meets or exceeds the SRS threshold, that ordnance requirement is considered SAT. If the value is below the threshold, that ordnance requirement is considered UNSAT. Ordnance in this category remains tied to the individual, and no longer counts towards a unit’s readiness when the aircrew departs the unit. When a visitor is part of a crew that expends ordnance out of a unit’s NCEA that visitor’s contribution shall not contribute to that unit’s readiness. Ordnance category assignments and T/M/S specific business rules are described in Appendix B.

(c) End-to-End Ordnance (E2E). End-to-End Ordnance is intended to provide squadron experience with limited availability high value weapons during the FRTP. Ordnance in this category is expressed as a whole number required per squadron, per FRTP, and is listed on the SRS. E2E ordnance is attributed to the squadron as a whole since it reflects the
entire process of planning, build up, loading, arming and delivery. Therefore, readiness is not affected when a crew member who expended an E2E weapon transfers from the squadron. E2E ordnance expenditures remain valid until the end of the FRTP in which it was expended. Ordnance category assignments and T/M/S specific business rules are described in Appendix B.

Note: All ordnance expended by FDNF units is to be considered E2E. All ordnance expenditures remain current until the end of the FRTP cycle in which they were expended. Ordnance that is required for training but is not listed in the SRS shall be included in Enclosure 17 of this instruction. Ordnance calculations are enabled by running the Current Readiness Assessment (CRA) report in SHARP. SHARP calculates the ordnance expenditures based on specific business rules, defined in Appendix B, and counts the number of active aircrew at the time of the report. Under no circumstances shall the ordnance expended by any aircrew in one squadron be credited towards the readiness of another squadron. Detachments may transfer Training Ordnance and HTV Ordnance expenditures between detachments within the same squadron if the date that the ordnance was expended falls within the FRTP dates of the gaining detachment. In all cases, individual aircrew readiness (tasks/skills) transfers from one unit to another. A SHARP export is necessary to transfer this information between databases. Due to limited resources and aircrew rotation, it is imperative that OPS/TNG Officers maximize the training opportunities for aircrew which will continue to positively affect a unit’s readiness throughout the entire FRTP.

(7) Flight Hour Execution. The Flight Hour Execution cell represents the minimum flight time a squadron or detachment is required to execute over a moving 90 day interval. If the “90-Day Rolling Average” flight hour requirement has been met for the reporting period over the last 90 days, then a value of SAT will be placed in all the cells of the Flying Hour Execution column. A detailed description of the “90-Day Rolling Average” flight hour requirement is covered in the Flight Hour Program (FHP) section of this instruction. SHARP V5.1 or later will automatically calculate the 90-day average by summing a unit’s daily flight hour execution totals over a moving 90 day period. All flight hours flown by active aircrew and visitors in the unit’s SHARP database will contribute to the squadron flight hour execution calculation. The effects of the flight hour calculation on Eₜ are discussed in the flying hour execution section of this instruction.
g. Navy Tactical Tasks (NTAs). NTAs are tasks that are based on doctrine, tactics, techniques, and procedures. When conditions and standards are attached to an NTA, it becomes a Navy Mission Essential Task (NMET). A collection of NMETs for a given community is referred to as the Naval Mission Essential Task List (NMETL). The NMETL is validated against the community’s ROC/POE and thus represents the full capability of a given community to conduct Major Combat Operations (MCO). NTAs that directly relate to aircrew training and employing aircraft are extracted from the NMETL and are used to populate the NTA column of the T&R matrix. As squadrons work through their respective Squadron Requirements and Skills, NTA conditions and standards become satisfied and calculated squadron readiness levels increase. As a minimum, all COMNAVAIRPAC/COMNAVAIRLANT units shall include the Launch Aircraft, Recover Aircraft and Move Units NTAs in their matrix. The NMETL shall also include the Cultural Awareness NTA, which can be included in the T&R matrix if desired.

h. Notes Section. Any notes required to further explain squadron or detachment requirements shall be listed in a notes section below the NTA column. Each matrix shall include the crew composition by crew position and ACTC level for each T/M/S covered in that matrix.

i. Resource Summary Page. The Resource Summary Page depicts various resources required by the squadron in order to achieve a desired state of readiness. Included in the Resource Summary Page is a summary of weapons, practice rounds, expenditures, etc. not included in enclosure (17). Format for this page can be found in appendix A.

j. FRS Baseline. Type Wing Commanders shall create and maintain a baseline of T&R tasks completed by all FRS graduates. Upon completion of the FRS syllabus, all baseline tasks completed by the graduate will transfer to the receiving fleet squadron where the data shall be inserted into the SHARP database. SHARP will then calculate the readiness achieved and integrate it with the squadron’s readiness calculations. Fleet Replacement Squadrons that have the ability to transfer actual SHARP data, vice a baseline, have the option to do so on a T/M/S wide basis. In all cases if the new crew can be more accurately baselined with actual training documented in previous flight records that training may be logged in the place of an FRS baseline. The FRS baseline shall represent all tasks completed in the Cat 1 syllabus. Due to the inherent experience of a Cat
2-5 student, their readiness shall mirror the Cat 1 baseline upon transfer to a fleet squadron. If the baseline data is used, the completion date for the entire Task set will be the date the student detaches from the FRS, regardless of when the actual task was completed. If SHARP data is transferred, the completion date is the actual date the task was accomplished. This process enables the graduate to immediately contribute to the receiving command’s readiness. The FRS Baseline is a separate page within each T/M/S matrix. The format for this page can be found in appendix A.

k. ACTC Mapping Page. ACTC events have inherent training value since they are designed to train and test many of the same skills as the CB T&R matrices. The objectives of a particular event may vary for aircrew at different ACTC levels and are specified in the WTM. The accomplishments within an ACTC syllabus flight or simulator must relate directly to a CB T&R matrix task. This direct link is a separate page (ACTC Mapping Page) within the T/M/S matrix. Format for this page can be found in appendix A.

6. Squadron Training Matrix Review and Validation Process

   a. Introduction. Naval Aviation training is a fluid process, evolving with changes in doctrine, requirements and weapon systems. Constant improvements and changes are required to ensure units are training to current requirements and peak efficiency is maintained. This section provides guidance on the methodology employed to create the various training matrices and general procedures for running the review process.

   b. Matrix Creation Methodology. The cornerstone of Naval Aviation aircrew training is the training event. A training event is defined as a task, conducted in flight or in the simulator, in which a set of well-defined objectives are practiced and/or tested in an environment where mission skills can be expected to be performed. Each T/M/S Task to Skills section delineates tasks that encompass the training required within each Navy Tactical Task (NTA) of that particular community. More than one task may be completed during a single flight or simulator training period, and a task may be logged more than once in a flight if the flight time thresholds are met in the equivalent sortie length matrix in Appendix D, and WTM guidance allows it. Training objectives for each task are defined in WTM and associated with supported NTAs. The standards for each should be stringently followed.
(1) Revision of training matrices requires a review of the T/M/S Required Operational Capability/Projected Operational Environment (ROC/POE). The ROC/POE statements define the basic operational and resource requirements for each T/M/S. ROC statements assign primary and secondary naval warfare mission areas for each T/M/S. POE statements establish the operational condition and profile for which the unit must be manned, operated, and maintained.

(2) Squadron NTAs are derived from the ROC/POE and used to build the unit’s NMETL. The ROC statements are used to build the MCO (Major Combat Operations) NMETL, which includes all the METS that a given T/M/S could perform. The NMETL is chopped by the Type Wing Chain of Command, routed through COMNAVAIRPAC N3/40, and approved by Commander, U.S. Fleet Forces (COMUSFLTFORCOM). The approved NMETL is maintained in the Navy Training Information Management System (NTIMS), which is used to feed the unit’s NMETs to DRRS-N for readiness reporting.

Note: Units shall not change any portion of their NMETL within NTIMS. COMNAVAIRPAC, acting as the Cognizant Review Authority (CRA), will forward to CUSFF any and all changes to a community’s NMETL. The TYCOM may delegate responsibility for editing NMETLs in NTIMS to certain Type Wings, but still maintains responsibility as the CRA.

(3) NTAs are mapped to skill sets, periodicities, and squadron level requirements through the Task to Skills matrix.

(4) Defined objectives for each task are developed and included with the measures of performance/measures of effectiveness (MOP/MOE) in each WTM. These criteria should be specifically related to the conditions and standards in the associated NMETLs.

(5) Squadron requirements allow communities to identify the major training evolutions that must be completed during the FRTP in order to reach higher levels of readiness. These requirements are in addition to the individual aircrew requirements.

c. Matrix Integrated Process Teams (IPTs). The Type Wings listed below are the primary POC for their T/M/S Integrated Process Teams (IPT). These IPTs are responsible for ensuring periodic reviews are conducted on their respective community’s ROC/POE, T&R matrix and WTM.
d. T&R Annual Review Process. A Type Wing may convene a T&R matrix/WTM review at their discretion or when directed by higher authority. T&R matrix reviews will normally be convened on an annual basis. This typically happens at the annual Training and Readiness Conference. The TYCOM may schedule a mid-year T&R review if emergent requirements dictate the need for immediate changes. The purpose of the annual T&R matrix/WTM review is to:

(1) Update community ROC/POE and applicable portions of the NMETL.

(2) Evaluate the T&R matrix and WTM using data collected since the last review. Validate currency requirements, prerequisites, MOP/MOE and resources required for T&R tasks using completion data and documented deficiencies in aircrew performance.

(3) Ensure ACTC qualification requirements are updated as the community develops and integrates the program.

(4) Incorporate new missions, tasks, and weapon systems to determine if additional tasks are warranted or required.

(5) Ensure appropriate NCEA levels are documented.

(6) Review Naval Aviation Simulator Master Plan (NASMP) and the simulator roadmap to adjust skill set relationships for available simulator functionality.
e. T&R Matrix Change and Approval Process. Recommended changes to the T&R Matrix should be submitted to the cognizant Lead Type Wing Commander. Recommended changes to this instruction and matrices shall be submitted as follows:

(1) Change recommendations are sent to the cognizant Lead Type Wing Commander. The Lead Type Wing Commander shall validate and forward the recommended changes to COMNAVAIRPAC (N40) for approval. If matrix changes are to be considered, the Type Wing shall include an electronic copy document summarizing the changes in detail. Once approved, this document will be used to generate a Naval message detailing matrix changes to the affected fleet units.

(2) Only COMUSFLTFORCOM approved NTAs shall be used in the CB T&R matrix.

(3) If a JCS Request for Capability (RFC) requires a community to alter training for a single squadron or detachment, an interim T&R matrix will be developed by the TYPEWING and forwarded to COMNAVAIRPAC (N40).

(4) COMNAVAIRPAC Chief of Staff (COS), or his designated representative, has final approval for all recommended changes that affect resource levels (FHP funding, ordnance, etc). COMNAVAIRPAC (N40) has approval authority over all recommended changes that do not affect resources.

(5) The basic T&R instruction will be signed by the COMNAVAIRPAC COS. Changes to individual T/M/S matrices will be published via the COMNAVAIRFOR Readiness Reference Tool on the COMNAVAIRFOR SharePoint site or SHARP website listed above.

7. Squadron Readiness Calculations, Reporting and DRRS-N

a. Introduction. This section defines and describes the methodology of the execution of the T&R matrices and readiness calculations as they pertain to both the individual aircrew and the squadron overall, and the methodology behind the Defense Readiness Reporting System - Navy (DRRS-N) interface for unit readiness reporting.

b. Notional Fleet Readiness Training Plan (FRTP). The T&R instruction has been designed around the FRTP. The FRTP notional profile provides a building block approach to achieving desired readiness states as a unit progresses through the
various phases of the FRTP. This is accomplished by completion of individual training at the unit level and completion of major training events within the FRTP (i.e., ARP, COMPTUEX, Fallon, and Joint Task Force Exercise (JTFEX)). Squadrons should strive to meet these readiness levels with the flight hour funding provided. Squadrons and Wings that are required to maintain a higher constant state of readiness (i.e. FDNF, TACAMO, VPU, VQ and HM) will be funded at the appropriate levels to ensure that they can maintain the prescribed capability requirements as delineated by higher authority.

c. Readiness Expectations/Phase Completion. The TYCOM training goal is to have each Air Wing/squadron/detachment attain a minimum Training Figure of Merit (TFOM) of 80 (Green) in all NTAs at the start of the unit’s employability window. While deployed, external resources (those resources not under direct control of the squadron commander) and training opportunities must be provided by the operational commander to maintain sustainment skills. The TYCOM’s expectation for the Commander’s Assessment; assuming a unit has been resourced properly, is a transition from Red “No” to Yellow “Qualified Yes” upon Basic Phase completion and from Yellow “Qualified Yes” to Green “Yes” upon completion of the Integrated Phase and entering the employability window. This matches the expectation that the unit is ready for independent tasking following Basic Phase completion and could be employed for combat operations with some associated risk. The Commander’s Assessment is separate from the calculated Training Figure of Merit. The Training Figure of Merit transitions from red to yellow at various times depending on MET and Capability Area complexity and does not necessarily need to match the Commander’s Assessment.

(1) After the completion of COMPTUEX or Air Wing Fallon, whichever occurs later, a squadron/detachment is expected to attain a minimum Training Figure of Merit (TFOM) of 80 (Green) in all NTAs. Units in post deployment sustainment may fall below 80 TFOM but must be recoverable to 80 within 30 days. Note that not all NTAs that are contained in the unit’s Mission Essential Task List (METL) are mapped to the Training pillar in the T&R matrix and DRRS-N. Only those NTAs that aircrew can train to are listed in the T&R matrix.

(2) CVW and Type Wing Commanders must ensure that their assigned units successfully complete required FRTP Basic Phase unit level inspections, qualifications, certifications, schools
and assessments. CVW Commanders shall initiate a Basic Phase Completion message for squadrons under their operational control. Type Wing Commanders shall initiate a Basic Phase Completion message for squadrons not attached to a CVW under their administrative control. Accordingly, at the end of the Basic Phase, CVW and Type Wing Commanders will report the end of the Basic Phase and recommend whether or not the unit is ready to commence integrated or advanced training. They will provide a written report including training shortfalls to the TYCOM using the following example:

(a) CVW/Type Wing Basic Phase Completion Message.

This message template will be used by CVW and Type Wing Commanders to report completion of Basic Phase training and readiness to commence follow-on, more advanced training or to report non-completion of Basic Phase training requirements in the allotted time. This template includes the minimal information fields required and is classified confidential at a minimum when filled in.

FROM (CVW or TYPE WING)  
TO COMNAVAIRPAC SAN DIEGO CA//N40/N4B2/N4B21// or COMNAVAIRLANL  
INFO COMNAVAIRLANL NORFOLK VA/N40/N40S// or COMNAVAIRPAC  
(Other PLAs as required)

BT
CLASSIFICATION //N03210//
MSGID/GENADMIN/TYCOM//
SUBJ/(U) BASIC PHASE COMPLETION REPORT//
REF/A//DOC/CUSFF-CPP INSTRUCTION 3501.3C/DATE OF INSTRUCTION PROMULGATION//
REF/B//DOC/COMNAVAIRFOR 3500.1D//NARR/REF A IS THE FLEET TRAINING CONTINUUM. REF B IS TYCOM TRAINING AND READINESS INSTRUCTION.//
POC/NAME/CODE/TEL: //EMAIL: //
RMKS/1. PER REF A, UNIT HAS COMPLETED THE BASIC PHASE ON (DATE) AND IS (READY/NOT READY) FOR FOLLOW ON TRAINING.  
2. ALL BASIC PHASE REQUIRED INSPECTIONS, QUALIFICATIONS, CERTIFICATIONS, SCHOOLS, AND ASSESSMENTS HAVE BEEN SATISFACTORILY COMPLETED. (OR HAVE NOT BEEN SATISFACTORILY COMPLETED FOR THE FOLLOWING REASONS.)  
A. TYPE/NAME/REASONS NOT COMPLETE/MITIGATION STEPS AS REQUIRED/COMPLETION DATE (BELOW ARE EXAMPLES AND NOT ALL INCLUSIVE) (waivers must be justified) CERTIFICATION/VFAXXX DID NOT COMPLETE ARP DUE TO SCHEDULING CONFLICT/ARP SKED FOR 18NOV11/NOV11.  
3. CVW HAS COORDINATED ARP TRAINING REQUEST.  
4. CLOSING REMARKS.//

20
(b) CVW/Type Wing FRTP Phase Completion Risk Report. This message template will be used to report when a unit is at risk of not completing the FRTP Basic/Integrated/Advanced Phases on schedule. This template provides specific information fields which may be used; additional information may be provided in the Closing Remarks field to aid decision makers in determining risk to the FRTP and FRP. CVW and Type Wing Commanders will provide this report to the TYCOM as soon as a unit is recognized as being at risk of not completing the Basic, Integrated or Advanced Phase certification. This template includes the minimal information fields required and is classified confidential at a minimum when filled in.

FROM (CVW or TYPEWING)  
TO COMNAVAIRFOR SAN DIEGO CA//N40/N4B2/N4B21// or COMNAVAIRLANT INFO COMNAVAIRLANT NORFOLK VA/N40/N40S// or COMNAVAIRPAC  
(Other PLAs as required)  

BT  
CLASSIFICATION//N03210//  
MSGID/GENADMIN/TYCOM/C2F/C3F//  
SUBJ/(U) FRTP BASIC OR INTEGRATED/ADVANCED PHASE COMPLETION RISK REPORT//  
REF/A/DOC/CUSEF-CPF INSTRUCTION 3501.3C/DATE OF INSTRUCTION PROMULGATION//  
REF/B/DOC/COMNAVAIRFOR 3500.1D// (REF B NOT REQUIRED FOR INTEGRATED/ADVANCED MID-PHASE REPORT)NARR/REF A IS THE FLEET TRAINING CONTINUUM. REF B IS TYCOM TRAINING MANUAL.//  
POC/NAME/CODE/TEL: /EMAIL: //  
RMKS/1. PER REF A AND REF B, UNIT/GROUP IS IN THE (BASIC, INTEGRATED OR ADVANCED) PHASE OF THE FRTP AND IS AT RISK OF NOT COMPLETING THE (CURRENT PHASE) AS SCHEDULED AND/OR ATTAINING CERTIFICATION.  
2. AREAS OF CONCERN WITH MITIGATION STEPS PROVIDED BELOW: (USE AS WARRANTED)  
   A. SCHEDULE ISSUES:  
   B. PERSONNEL ISSUES:  
   C. MATERIEL ISSUES:  
   D. TRAINING ISSUES:  
   E. SUPPLY ISSUES:  
   F. ORDNANCE ISSUES:  
3. CLOSING REMARKS.//  

BT  

(3) Type Wing Independent Deployer Training Completion Message. Type Wing Commanders shall initiate a Training Completion Message for independent deploying squadrons under
their administrative control who have completed all requirements for deployment certification (MSS, MSO-R, MCO-S, MCO-R). Due to the unique training requirements and compressed FRTP timelines associated with expeditionary squadrons, the Basic Phase Completion message is not required. These expeditionary and unit deployment program (UDP) squadrons include VP, VPU, VAQ, VFA, VQ(E), VQ(T), HSC, and HM. This message template will be used by Type Wing Commanders to report completion of training and readiness requirements for deployment certification endorsement. This template includes the minimal information fields required and is classified confidential at a minimum when filled in.

FROM (TYPE WING)
TO COMNAVAIRPAC SAN DIEGO CA//N3/N40/N4B2/N4B21// or COMNAVAIRLANT
INFO COMNAVAIRLANT NORFOLK VA//N3/N40/N40S// or COMNAVAIRPAC
(Other PLAs as required)

BT
CLASSIFICATION//N03210//
MSGID/GENADMIN/TYCOM//
SUBJ/(U) TRAINING COMPLETION MESSAGE ICO
(UNIT)//REF/A/DOC/CUSFF-CPF INSTRUCTION 3501.3C/DATE OF
INSTRUCTION PROMULGATION//
REF/B/DOC/COMNAVAIRFOR 3500.1D//
NARR/REF A IS THE FLEET TRAINING CONTINUUM. REF B IS TYCOM
TRAINING AND READINESS INSTRUCTION.//
POC/NAME/CODE/TEL: /EMAIL: //
RMKS/1. PER REF A, (UNIT) HAS COMPLETED ALL DEPLOYMENT
REQUIREMENTS ON (DATE) AND IS (READY/NOT READY) TO CONDUCT
CURRENT OPERATIONS ISO CCOM TASKING.
2. ALL REQUIRED INSPECTIONS, QUALIFICATIONS, CERTIFICATIONS,
SCHOOLS, AND ASSESSMENTS HAVE BEEN SATISFACTORILY COMPLETED.
(OR HAVE NOT BEEN SATISFACTORILY COMPLETED.)

A. UNIT READINESS:
COMMANDERS ASSESSMENT: (Y/N/Q) (COLOR)
PERSONNEL: FFOM = XX (COLOR)
EQUIPMENT: MFOM = XX (COLOR)
TRAINING: TFOM = XX (COLOR)

B. AIRCREW READINESS:

C. MANNING:

3. NTA TYPE/NAME/REASONS NOT COMPLETE/MITIGATION STEPS AS
REQUIRED/COMPLETION DATE.
4. SQUADRON PERFORMANCE SUMMARY:
5. CLOSING REMARKS.//
d. Flight Hour Program. Programmed readiness thresholds within the FRTP require management processes supported by accurate and persistent flight hour data which represents fleet operations. The Flying Hour Program is structured to support training to meet the Chief of Naval Operations readiness requirements.

(1) The following methodology is used in the SHARP software:

(a) All flight events have inherent training value whereby skills can be gained.

(b) Logging of multiple tasks is permitted during a single flight event. Aircrew can log a single task a second time when flight time exceeds the values listed in Appendix D for each applicable T/M/S. Equivalent Sortie Lengths are taken from the old Sortie Based Training and Readiness Matrices. Baseline flight hour funding is designed to provide sufficient flight hours to meet requirements in all flight environments (training, support, operational) based on a peacetime environment and a unit’s location (phase) within the FRTP timeline.

(c) Fleet units are assigned specific R+ months associated with their respective FRTP profile and phase. R+ month assignments by unit are managed by the COMNAVAIRPAC/COMNAVAIRLANT FHP Manager within the Aviation Data Warehouse and are posted on SIPRNET at the following link: http://www.fleetforces.navy.smil.mil/COMNAVAIRFOR/N40/FHP/default.aspx

(d) Baseline flight hour requirements by R+ month are defined in the TMS Readiness Standards (COMNAVAIRFORINST 3510.11A). Both Training and Support Hour requirements are depicted. Each T/M/S profile standard can be accessed via the following link: https://www.portal.navy.mil/comnavairfor/Naval_Aviation_Enterprise/current_readiness/default.aspx

(e) Certain circumstances (war, humanitarian relief, etc.) may necessitate flight hour requirements above baseline funding. Flight hours executed in excess of baseline are funded via supplemental means (i.e., Overseas Contingency Operations).
(2) "90-Day Rolling Average" flight hour execution requirement.

(a) The flight hour requirement, or target, is calculated by adding the training hours requirement for each assigned R+ month over the respective 90-day period. MESH and other contingency hour requirements above the training baseline are not included in the target value. (NOTE: For 90-day periods that cover partial months, the training hours requirement is pro-rated for each day assigned to each R+ month. This calculation is performed automatically in SHARP). Hours for both active crew members and visitors count towards the flight hours executed in SHARP.

(b) The flight hour target ($F_{\text{tar}}$) is then compared with all of a squadron/detachment's executed flight hours during the 90-day period as recorded in SHARP. If flight hours executed ($F_{\text{exe}}$) is greater than the flight hour target ($F_{\text{tar}}$) then a value of "SAT" will be placed in all the cells of the Flying Hour Execution column. When flight hours executed ($F_{\text{exe}}$) are less than the flight hour target ($F_{\text{tar}}$), this is recorded as under-execution and a value of "UNSAT" is placed in all the cells of the Flying Hour Execution column.

(c) Example: 10-plane CVW F/A-18C squadron during Basic Phase (R+7, R+8, and R+9 assigned over 90-day period).

<table>
<thead>
<tr>
<th>FH Requirement</th>
<th>R+7</th>
<th>R+8</th>
<th>R+9</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training Hours</td>
<td>222.8</td>
<td>243.0</td>
<td>263.3</td>
<td>729.0</td>
</tr>
<tr>
<td>Support Hours</td>
<td>15.0</td>
<td>15.0</td>
<td>15.0</td>
<td>45.0</td>
</tr>
<tr>
<td>Total Hours Standard</td>
<td>237.8</td>
<td>258.0</td>
<td>278.3</td>
<td>774.0</td>
</tr>
<tr>
<td>Actual FH Execution</td>
<td>250.0</td>
<td>250.0</td>
<td>250.0</td>
<td>750.0</td>
</tr>
</tbody>
</table>

$F_{\text{tar}} = 729.0$ (sum of training hour requirement)

In this example, the squadron's $F_{\text{exe}}$ was 750 hrs during this 90-day period, thus satisfying the "90-Day Rolling
Average" flight hour execution requirement. Note that this squadron’s total baseline requirement was 774 hrs due to the addition of support hour requirements not directly linked to achieving T&R.

e. Definitions of Flight Environments

(1) Training flight time. Any flight hour, or portion of a flight hour, dedicated to the attainment of skills. Training hour requirements are depicted on the TMS Readiness Standards by R+ month.

(2) Mission Essential Support Hours (MESH). Those flight hours required in excess of the CB T&R baseline to support peacetime baseline requirements. MESH varies depending on support of CSG, ESG, FDNF or Expeditionary operations and is calculated for both ashore and deployed. Notional MESH requirements are depicted on the TMS Readiness Standards. Examples of support flights:

(a) VERTREP

(b) Logistics Flights

(c) PMCF

(d) Weather/Mission Aborts

(e) Service sorties (missile/target profiles)

(f) OPPOR, adversary, tanking, etc.

(g) Ferry

(3) Operational flight time. Any flight hour, or portion of a flight hour, tasked by higher authority (i.e., CVW, Carrier Strike Group (CSG), Expeditionary Strike Group (ESG), designed to accomplish a specific warfare commander's operational mission or support action, and NOT intended specifically for aircrew proficiency or training. Examples of Operational Sorties:

(a) Contingency Operations

(b) Surface Search and Control (SSC)
(c) Maritime Interdiction Operations (MIO)

(d) Counter Narcotics Operations (CNOPS)

(e) Operations in support of CVW, CSG/ESG, & JTFEX

(4) Special Interest Flight Time. Any flight hour, or portion of a flight hour, that has special interest from a Type Wing perspective. These hours are not mutually exclusive and will overlap with other flight hour categories. For example: a single 1.5 hour Joint Contingency OPS, NVG, embarked event would be counted as 1.5 hours under each category. Type Wings may customize the SHARP software to collect additional types of Special Interest Hours as desired. Examples of special interest flight time include:

(a) Deployed Hours. Total hours flown while the squadron/detachment is on deployment.

(b) Exercise Hours - International. International exercise hours are any flight hours/sorties conducted with one or more foreign government’s armed forces.

(c) Exercise Hours - Joint. Joint exercise hours are any flight hours/sorties conducted with the U.S. Air Force (not including receiving fuel while airborne), U.S. Army or U.S. Coast Guard. Exercise hours/sorties with the U.S. Marine Corps are not considered “Joint” for purposes of this report.

(d) Night Vision Goggle (NVG) Hours. Hours flown using NVGs.

(e) Opposing Forces Hours (OPFOR). Red Air presentations flown by squadron aircraft for in-house, Air Wing, and carrier strike group training, using known enemy tactics.

(f) Staff Hours. Hours/sorties used by members of staffs (i.e., CVW, TYCOM, CSG).

f. Reports and Data Management. Units are required to transmit their SHARP training data to the Aviation Data Warehouse (ADW) at least once every 15 days using the SHARP generated Current Readiness Assessment (CRA). Current Readiness Assessments shall also be submitted when there is a significant change in readiness (i.e. upon completion of ARP, TSTA, COMPTUEx, Air Wing Fallon, JTFEX or a major readiness exercise),
and upon commencement of a major deployment. CRA reports shall be submitted every 15 days and are no longer tied to the 5th of the month. Other reports within SHARP allow the squadron/detachment to access their particular readiness posture and aid in the development of future training plans. The CBR task scheduler and T&R Unit Skills reports aid schedulers in determining the tasks required for each individual. The squadron/detachment is required to actively manage their respective SHARP database to ensure consistent accuracy of Readiness Assessment data. Data management includes, but is not limited to:

(1) Maintaining aircrew qualifications (NVG, ACTC, Strike lead etc.)

(2) Updating FRTP related dates (FRTP, POM, and Employability dates)

(3) Maintaining aircrew status (active, visitor, deleted etc.)

(4) Updating aircrew rotation dates (PRD)

(a) Current Readiness Assessment (CRA) Data Submission. All units shall submit a Current Readiness Assessment every 15 days and when there is a significant change in readiness (i.e. upon completion of ARP, TSTA, COMPTUEX, AWF, JTFEX or a major readiness exercise), and upon commencement of a major deployment. Current Readiness Assessments may be required by higher authority more frequently during quickly changing training or surge periods, or when a significant change in readiness is realized. The “Edit Unit Schedule” Tab must be updated each month before the assessment is completed to ensure accurate calculation of flight hour requirements by the SHARP program. The process for Current Readiness Assessment submission differs in each of the following scenarios:

1. Non detachment-based squadrons accessing SHARP via the web (shore based units in CONUS or overseas) must sign the Current Readiness Assessment page once the data is reviewed and validated for accuracy. Once signed and submitted, the Current Readiness Assessment is automatically sent for upload into ADW.

2. Squadrons and detachments accessing SHARP via a portable version (typical shipboard scenario) must sign
the Current Readiness Assessment page once the data is reviewed and validated for accuracy. Once signed, the Current Readiness Assessment must be manually sent via NIPRNET to eom@innovasi.com.

3. Detachment-based squadrons accessing SHARP via the web (shore based units in CONUS or overseas):

   a. Deployed detachment CRAs will be uploaded into homeguard’s database once their CRA has been submitted. Once CRAs are received and uploaded, and the data reviewed and validated for accuracy, homeguard signs the CRA page. Once signed and submitted, the CRA is automatically sent for upload into ADW. Type Wings must ensure ADW receipt of CRA files from associated squadrons and detachments every 15 days via the CRA Submission Status report in ADW.

   b. The CRA data is essential for the following reasons:

      (1) Data source for Current Readiness reporting to analyze resources expended by COMNAVAIRPAAC/COMNAVAIRLANT units.

      (2) Data source for NTIMS and DRRS-N to maximize readiness through optimized resource decisions and capabilities based Current Readiness Assessment.

      (3) Source for data analysis by COMNAVAIRPAC/COMNAVAIRLANT, TYPEWINGS, COMUSFLTFORCOM, Chief of Naval Operations (CNO), Center for Naval Analysis and approved defense contractors.

   c. Non-receipt of CRA files. Technical issues can arise causing non-delivery of CRAs. Type Wings are responsible for contacting Innova Customer Service Representatives listed on the SHARP website as soon as possible if they suspect a problem. SHARP support contractors will take action to resolve technical problems. If a unit is more than 10 days delinquent in submitting a CRA, COMNAVAIRPAC will send a naval message or email, as required, to identify delinquencies.

   g. Readiness Calculations and Integration with DRRS-N. The Defense Readiness Reporting System - Navy (DRRS-N) mandates that all units use a common training readiness metric that reflects Performance ($P_f$) and Experience ($E_f$) factors for each NTA where
training is measured. The resultant value of these factors is called the Training Figure of Merit (TFOM) and is computed in the Navy Training Information Management Systems (NTIMS). Pf and Ef are only updated when a unit submits a CRA data file. ADW in turn pushes these values to NTIMS and then on to DRRS-N. The following paragraphs describe how the performance and experience factors combine to calculate TFOM for each NTA.

Note: Although ADW calculates Pf and Ef, USFF has final authority over the TFOM equation. Of note, Pf and Ef do not have colors (red, yellow or green) associated with them. Only the resulting Training Figure of Merit will be assigned a color that is reported in DRRS-N.

Note: The performance factor is calculated for units with six crews or more using the ratio of skilled crews to the number of skilled crews required OR actual crews on board, whereas units with five crews or less use fixed numbers (table 4-1). All units use the same procedures when calculating the experience factor. SHARP calculates the number of actual crews on board based on the number of crews that are listed as active and assigned to the unit.

(1) Performance Factor (Pf) - units with six crews or more. The Pf calculation is calculated by dividing the number of skilled crews by the minimum of required skilled crews or actual number of crews on board (COB) for each NTA. The DRRS-N drill down in the Training Figure of Merit indicates the date of the Current Readiness Assessment that is displayed.

\[
P_f = 100 \times \frac{\text{Number of Skilled Crews}}{\text{Minimum of (Required Skilled Crews) or (Actual Crews) On Board}}
\]

A skilled crew is based on the crew composition and skill currency rules which are outlined in each matrix. If the resulting Performance Factor is greater than 100, the number submitted to NTIMS will be 100. In no case can the Performance Factor be greater than 100.

(2) Performance Factor (Pf) - units with five crews or less. Because of the small sample size in units with five crews or less, the Performance Factor calculations are based on fixed numbers vice ratios of skilled crews. Table 4-1 provides the Pf values for units with five crews or less.
<table>
<thead>
<tr>
<th>Required Crews on Board</th>
<th>Number of Skilled Crews</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>50</td>
</tr>
<tr>
<td>3</td>
<td>33</td>
</tr>
<tr>
<td>4</td>
<td>25</td>
</tr>
<tr>
<td>5</td>
<td>20</td>
</tr>
</tbody>
</table>

Table 4-1

The table is read from left to right. For example, if a unit requires three crews on board, but only two crews are considered skilled, they would enter the table from the column labeled “Required Crews on Board” at number three. Move to the right until they reach two Skilled crews. The $P_f$ for this unit is 66. This unit would need all three crews skilled to reach a $P_f$ of 100. Caveat: When $E_f$ is less than 100 (not all SRS items are completed), $P_f$ will be held to a value of no greater than 80.

(3) Experience Factor ($E_f$). The $E_f$ calculation is expressed as a number between 0 and 100. $E_f$ is based on a unit’s ability to meet all the SRS requirements for each NTA as outlined in each T/M/S matrix.

$$E_f = \frac{100 \times \text{Number of SRS Items Completed}}{\text{Number of SRS Items Required}}$$

The $E_f$ value has two possible outcomes. If the unit completes all the SRS requirements, a maximum value of 100 is assigned. If one or more of the required SRS items is not completed, a value less than 100 is assigned.

(4) Training Figure of Merit (TFOM). The TFOM calculation is the measure of a unit’s training capability in a given NTA. TFOM is calculated by multiplying the Performance and Experience factors. TFOM values are calculated in NTIMS and sent to DRRS-N to populate the Training Pillar of the unit’s report. In DRRS-N, TFOM is one of three pillars that are used to calculate an average Figure of Merit for each NTA. In DRRS-N, the TFOM value is assigned a color. When TFOM is between 80 and 100, Green is assigned to the Training pillar cell, indicating that the unit has met the minimum training requirements of that NTA. When TFOM is between 60 and 79, Yellow is assigned, indicating that the unit has met most of the training requirements for an NTA. Red is assigned when TFOM is
between 0 and 59. Red indicates that the unit has not met the minimum training requirements for that NTA. Reference (h) explains the DRRS-N assessment rules in greater detail. TFORM is calculated via the following equation:

\[ TFORM = \frac{P_r \times E_r}{100} \]

g. Waiver Process. Waivers may be requested when resources are not available or when external factors (weather, operational tasking, range availability, etc.) preclude execution of tasks in the T&R matrix. CVW Commanders shall initiate waiver requests for squadrons under their operational control. Type Wing Commanders shall initiate waiver requests for squadrons not attached to a CVW and all detachments under their administrative control. The following example shall be used to request a T&R Waiver in the form of a Naval Message.

FROM (CVW or TYPEWING) 
TO COMNAVAIRFORPAC SAN DIEGO CA/N40/N4B2/N4B21// 
INFO COMNAVAIRPLANT NORFOLK VA/N40/N40S// 
(Other PLAs as required) 
SUBJ//COMNAVAIRFORINST 3500.1D TRAINING AND READINESS WAIVER REQUEST// 
REF/A/DOC/COMNAVAIRFOR/XX XXX XX/ 
AMPN/REF A IS COMNAVAIRFORINST 3500.1D, SQUADRON TRAINING AND READINESS 
INSTRUCTION// 
POC//(Include Last Name/Rank/Code/Location/Comm 
PHONE/DSN/EMAIL//REMARKS//THE FOLLOWING INFORMATION SHALL BE PROVIDED FOR EACH SQUADRON FOR WHICH THE WAIVER IS REQUESTED. THE INFORMATION SHALL BE PROVIDED IN A FOUR COLUMN FORMAT: 
1. SQUADRON OR DETACHMENT/ORDNANCE TYPE/START DATE/END DATE (EXAMPLE) 
VFA-192/SLAM-ER/01APR10/31MAR12 
VFA-103/SLAM-ER/01APR10/31MAR12 
VFA-192/MAVERICK/01APR10/31DEC12 
VFA-103/MAVERICK/01APR10/31MAR12 
VAQ-133/HARM/01APR10/31MAR12 
HS-15/HELLFIRE/01APR10/31MAR12 
2. JUSTIFICATION. 
T&R MATRIX. ONLY THAT PORTION OF THE SRS WILL BE WAIVED; ALL
OTHER REQUIREMENTS WILL REMAIN IN EFFECT.
(B) [IS THE WAIVER REQUIRED DUE TO THE LACK OF AN EXTERNAL
RESOURCE (RANGE, TARGETS, ETC.), AND WHAT IS THE EXPECTED FUTURE
AVAILABILITY OF THAT RESOURCE?]
3. MITIGATION STRATEGY. [WHAT HAS THE UNIT ACCOMPLISHED TO
MITIGATE THE TRAINING ORDNANCE SHORTFALL (SIMS, CATMS, ETC.)?]
4. CLOSING REMARKS.///

Notes:

1. If multiple types of ordnance are involved, separate line
descriptions and justifications are required.

2. Actual FRTP dates are required. Do not request “End of
FRTP”.

h. Use of SHARP V5.1. The Capabilities based matrix is not
supported by SHARP version 5.0 or lower. All COMNAVAIRPAC/
COMNAVAIRLANT squadrons and detachments (to include Fleet
Replacement Squadrons) shall use SHARP version 5.1 or higher to
log flights and provide Current Readiness Assessments.
COMNAVAIRPAC/COMNAVAIRLANT encourages the use of other SHARP
capabilities like Flight Scheduling, Syllabus and Qualification
Tracking and Flight Logbook generation.

i. Aviation Data Warehouse (ADW). The ADW is the central
collection point for SHARP data. ADW can be accessed only via
the SIPRNET at the following URL:
accessing ADW for the first time, users must select <Request
Account>, fill out the required information, and verify their
clearance through the ADW Security Management.

8. Action. COMNAVAIRPAC/COMNAVAIRLANT echelon commands are
responsible for the following actions:

a. TYCOM

(1) Maintenance, revision and approval of the Training
and Readiness Instruction. COMNAVAIRPAC N40 shall host an
annual T&R review conference.

(2) Monitor the training and readiness level of each
squadron.
(3) Manage and update Fleet Readiness Training Plan (FRTP) start and POM dates in the Master Aviation Plan (MAP) for CVW/Expeditionary units. PARECONGRU will manage the above listed dates for the PATRON, FAIRECONRON(E), and SPEC PROJ PATRON communities.

(4) Ensure wings/squadrons are resourced to attain the highest level of readiness consistent with the specific phase of the FRTP.

(5) Provide training to wings/squadrons in the use of the T& R instruction, as well as automated information system tools for the tracking of squadron readiness.

(6) COMNAVAIRPAC is the Cognizant Review Authority (CRA) responsible for the review of all aviation NMETLs. COMNAVAIRPAC (N40) reviews the draft METLs submitted by the Type Wings to ensure that the lower-echelon METLs support both the T&R matrix and the higher-echelon METLs. COMNAVAIRPAC/COMNAVAIRLANT shall review and forward for approval all submitted changes to NMETLs, as required, via NTIMS and request approval from COMUSFLTFORCOM. Moreover, COMNAVAIRPAC/COMNAVAIRLANT shall conduct NMETL reviews on an annual basis.

b. Type Wing Commander

(1) Maintain a WTM per this instruction.

(2) Manage and update FRTP start and POM dates for the following communities: HSM, HSC, HM, VM, and VQ(T).

(3) The Type Wing is the Responsible Organization (RESPORG) with the overall responsibility for executing its community specific NMETL. Moreover, it is responsible for the development and maintenance of its NMETL and shall submit all change recommendations to COMNAVAIRPAC (N40).

(4) Submit matrix changes to COMNAVAIRPAC (N40) for approval.

(5) Support training plans for assigned squadrons.

(6) Monitor the training and readiness level of each squadron.
(7) Ensure squadrons receive Sierra Hotel Aviation Readiness Program (SHARP) updates and are maintaining accurate SHARP databases.

(8) Ensure squadrons submit SHARP Current Readiness Assessments in accordance with Section D, paragraph 6.

c. CVW Commander

(1) Provide OPTAR and NCEA management/oversight for attached squadrons/detachments.

(2) Oversee and approve training plans for assigned squadrons.

(3) Monitor squadron training and readiness status and ensure that assigned squadron Commander’s Assessments are standardized according to the Readiness Expectations listed in this instruction for their assigned R+ month of the FRTP. Where resource limitations exist they should be highlighted with detailed commentary in the Commander’s Assessment and a downgraded assessment category.

(4) Preposition, on a case-by-case basis, NCEA ordnance necessary for continued squadron/wing unit-level training (ULT) other than what is necessary for at-sea work-ups and NAS Fallon detachments.

(5) Manage CRA submissions and Commander’s Assessments for assigned squadrons so that data in DRRS-N is consistent with the Carrier Air Wing Readiness Report. Squadron CRA submissions and Commander’s Assessments for the entire Air Wing should happen within three days of the Carrier Air Wing Readiness Report and Assessment in DRRS-N. Reporting dates for the Air Wing shall be promulgated by the CVW Commander or his designated representative.

d. Squadron CO

(1) Plan, develop and execute training plans to achieve the highest level of readiness per this instruction.

(2) Execute training in assigned NTAs commensurate with FRTP phase and available resources.
(3) Accurately report squadron/detachment training and readiness per this instruction.

(4) Submit matrix changes to the community lead Type Wing as required.

(5) Update DRRS-N Commander’s Assessments every 30 days or within 24 hours of a significant change in readiness (i.e. completion of TSTA, ARP, Air Wing Fallon, COMPTUEX or JTFEX), and upon commencement of a major deployment. SHARP Current Readiness Assessments should be updated twice as often, or every 15 days.

e. CVN Ordnance Handling Officer (OHO). The OHO will preposition all NCEA ordnance in support of the CVW as per the T&R matrix for FRTP events.

f. Naval Strike and Air Warfare Center (NSAWC). NSAWC Ordnance Officer will preposition all NCEA ordnance in support of CVW NAS Fallon detachments.

9. Instruction Review. Naval Air Force community training matrix sponsors, delineated in Section C, paragraph 3, will periodically convene working groups to review T/M/S-specific portions of this instruction, as well as their individual WTM, and submit proposed changes to COMNAVAIRPAC for approval. Where disagreement is found to exist between this instruction and other wing, squadron or unit documents, the provisions of this instruction shall take precedence.

R. W. BUTLER
Chief of Staff

Distribution:
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COMNAVAIRFOR Readiness Reference Tool, Date TBA