

TACRON GOUGE, HANDY INFO AND STUFF TO TRY

TACRON-101

A Beginner's Guide to the Startling World of Amphibious and Expeditionary Tactical Air Control



**"By this gouge, conquer!"*

15 May 2007
Abe's Final Product

GOUGE



MATERIAL
MAY NOT BE
SUITABLE
FOR
YOUNGER
SWOs

Cover Illustration: Jacque-Louis David's "**The Oath of Horati.**"

This final edition of TACRON-101 is dedicated to the hard-working people of the TACRON community. You guys do amazing things every day. Most of the people in the ESG don't have a bloody idea what it is that you actually do, but they know that TACRON makes the air world flow smoothly.

It's been my distinct pleasure to have served in the TACRONS for over twelve years. The first edition of TACRON-101, written way back in 1997, started out as a simple passdown file from OIC to OIC. It kind of got out of hand and kept growing, and the result is here in your hands today. Good luck and God Speed!

CDR J. "Abe" Sebastian

Amphibious / Expeditionary Operations Air Control Annotated Outline CONTENTS

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SO YOU'RE GOING TO THE FIELD, EH...? 1
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Foreword

When we wrote the very first edition of TACRON-101 (way back in '97), we did it to answer an urgent need of the Tactical Air Control Squadron (TACRON) community: we didn't have any standardized passdown, standard operating procedures, codified set of tactics, techniques or procedures. Other than some unintelligible nonsense in the ROC & POE documents, we had no decent description of what a TACRON detachment was supposed to be like or how it was supposed to function in relation to the flagship or other agencies in the amphibious ready group.

In other words, we had no *gouge*.

To complicate things, the typical TACRONite officer had no prior operational experience in TACRONisity. We all came from other lines of work...nobody to flight school with the goal of going to TACRON.

That made the importance of getting the gouge into the hands of a newly arrived TACRONite all the more critical. Using the venerable concept of "just in time manning," it was not entirely uncommon for a new arrival to report to a TACRON on Friday only to be told to meet the brow on Monday for the det's second underway workup.

In other words, *we needed the gouge yesterday*.

And of course, just because you had a bunch of gouge shoved into your reluctant little hands, there was no guarantee that you'd actually read it, especially if it came with warnings not to look at it if you intended to drive a car or operate heavy machinery within the next few hours.

The *gouge had to be at least a little entertaining*.

That was the background, setting, and motivation for the first edition of TACRON-101. The community has progressed somewhat since then. We have an established set of tactics, techniques and procedures codified into NTTP3-02.1.3, *Amphibious/Expeditionary Operations Air Control*. Much of the material included in previous editions of *TACRON-101* have migrated to that loftier (and considerably more official) document. Be that as it may, there still remains the need to break much of what we do into convenient, bite-sized chunks of gouge. That's exactly what we hope to accomplish in this latest edition.

CHAPTER 1

TACRON BASICS

1.1 THE TACRON MISSION

Your TACRON¹ Det will perform an amazing variety of functions for the Expeditionary Strike Group² and Marine Expeditionary Unit.³ The TACRON Det is one of several NSEs⁴ that are part of the ESG, while the Det OIC⁵ wears an additional hat as the staff Air Officer for the ESG Commander. You'll work closely with the MEU Air Officer, the Air Combat Element⁶, the Air Boss, ship's company, etc. You'll perform functions similar to an aircraft carrier Strike Ops when you put together the daily Air



Navy TACC aboard USS Boxer during Operation Iraqi Freedom. East and West Coast TACRONS converged to form one ATF-wide ATC organization, providing continuous tactical air control for coalition forces operating in the Northern Arabian Gulf.

Tasking Order. In the Tactical Air Control Center, you'll act like a CV's Strike Control as you direct the tactical air picture. You'll be involved with every mission that an ESG/MEU performs, from exciting and highly complex amphibious assaults, to mundane, tedious but incredibly important P/M/C (passenger, mail, cargo) missions. You'll be working with a wide variety of people and organizations, most of whom you've never heard of.

1.2 TACRONS: OUR BATTLEFIELD IS THE SKY!

No, we don't fly the aircraft ourselves (at least not in this tour), but our battlefield nonetheless is the sky. We control the skies above an amphibious task force. It's our mission to make sure that the aircraft in those skies are used to their

maximum effect to support the ATF/ESG Commander, the Landing Force Commander and the Composite Warfare Commanders in the execution of their missions. Not a bad gig when you stop to think about it...

¹ Tactical Air Control Squadron. Not to be confused with "Techron®," which is a proprietary fuel additive.

² ESG

³ MEU. This is the basic component of the Marine Air Ground Task Force (MAGTF) that deploys with an ESG. Larger amphibious task forces (ATFs) will deploy with much larger (and more capable) MAGTFs.

⁴ Naval Support Element

⁵ Officer In Charge

⁶ ACE...aren't acronyms fun?

1.3 THREE WAYS WE CONTROL AIRCRAFT

If you have any impression of tactical air control at all, you probably have a picture in your mind of a dark room full of radar scopes with controllers issuing commands to aircraft via radio. True enough, but an incomplete description. We control aircraft operating in an expeditionary/amphibious environment by giving them orders at three distinct levels:

- OPTASK AIR, AIR CONTROL PLAN, AIR CONTROL ORDER.

We set the stage for our aircrew by defining their “playground.” We define the air command & control agencies which will be directing them in the sky and we set the ground rules for flying in amphibious airspace using these overarching doctrinal products.

- Daily Air Tasking Order (ATO) and Special Instructions (SPINS). Now that our aircrews understand the basic rules for flying in TACC’s airspace, we issue them a specific set of orders (the ATO) which reflects the ATF/ESG and MAGTF⁷ Commanders’ intent and scheme of maneuver. We amplify those orders with a defined set of procedures (SPINS).
- Tactical Air Control. Here’s where we execute the ATO. We talk to the aircraft, track them on radar, execute procedural and advisory control of the aircraft.

It’s a three-tiered process, to be sure. We have to be masters of all three levels in order to really make things work.

1.4 ...NOT JUST ABOARD SHIP, EITHER!

TACRON detachments are not part of ship’s company, and for good reason. We’re expeditionary. We go ashore. A typical TACRON detachment will have a sub-detachment (an “away team,” if you will) that has received additional training to operate in expeditionary conditions ashore. These teams augment the Marine Air Control Group detachments that are

Operation Iraqi Freedom: Sorting out the Amphibious Airspace



⁷ Marine Air Ground Task Force. More on that later.

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common to Marine Expeditionary Units. TACRON personnel are often found controlling side-by-side with their Marine counterparts at expeditionary airfields.

Now that we've briefly discussed what TACRON is... Here is a quick "who's who in the zoo" for those of you not familiar with the amphibious navy (that's just about everyone who reports to a TACRON, isn't it?).

1.5 WHO'S WHO IN THE ZOO

The first thing you'll notice about an ESG is that isn't like a carrier strike group. Most of either come from a carrier background (we deployed as part of a carrier air wing), had a disassociated tour with a CSG (we're VP guys held hostage on a CV/CVN at some point or another), or have deployed as part of a CSG (we're HSL guys who alternate between being glad they're not embarked on a CV/CVN, but somehow wish we were). In a CSG, the flattop is the crown jewel of the fleet, and the CVW its main striking arm. Not so with an ESG. Here the embarked MEU is the "main battery." As you progress in your training, you'll soon learn the incredible utility and flexibility the MEU offers, especially during this time of ongoing war against the terrorists.⁸

ARG? ATF? ESG?

You'll notice that NTTP 3-02.1.3 refers continuously to the ATF and ESG. Often, just to be safe, they're lumped together into the catch-all term "ATF/ESG." What we're trying to say is that much of what we'll be talking about refers to both...often it's just a matter of scale. There are a lot of ways to refer to the officer in tactical command (OTC) of one of these sea-going amphibious motorcycle gangs.⁹ One catchy title is "CATF," standing for "Commander, ATF."

Naval Support elements

The OTC has a number of Naval Support Elements (NSEs) working for him.. The NSEs include the Naval Special Warfare (SEAL) platoon, Assault Craft Unit (the LCAC and LCU boats & people), Naval Beach Group (the beach masters) EOD (ordnance disposal), the Fleet Surgical Team, and (most importantly) the TACRON Det.

The Marine Air Ground Task Force

The Marines operate tactically as a Marine Air-Ground Task Force (MAGTF). This means that any battle will be a combined arms affair with air power in direct support of the ground troops. Operationally, the MEU is the smallest working level MAGTF. When you deploy, the MEU will have the following four main components:

1. MEU Command Element (CE). The brains of the outfit, augmented by various smaller support dets.
2. Ground Combat Element (GCE). The Battalion Landing Team.
3. Aviation Combat Element (ACE). A composite squadron consisting of assault helicopters, attack helicopters and Harriers. It will also include some air defense teams (Stingers & Avengers).

⁸ Sometimes a bayonet offers a more elegant solution to a particular geopolitical challenge than does a TLAM. Sometimes it's neither missile nor bayonet, but rather a smiling Marine handing out a MRE that's the best application of power from the sea. No matter how you slice it, an ESG is a potent tool of foreign policy!

⁹In addition to the most obvious form of address ("Sir," "Ma'am") that is.

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4. Combat logistics element (CLE).¹⁰ Provides supply, logistics, engineering, motor transport, vehicle maintenance and medical support. Key players in humanitarian assistance/disaster relief (HA/DR) operations and noncombatant evacuation operations (NEO).

Another key player in this whole mish-mash is the flagship's Amphibious Air Traffic Control Center (AATCC, still widely known by its older name, "Helicopter Direction Center" (HDC)). AATCC the equivalent of CATCC on a CV in that it serves as departure/approach control, and is capable of doing CASE III precision radar approaches. Throughout most of the fleet, TACC is the primary air control unit for vertical (helicopter) assaults, but AATCC has an ancillary mission of doing this also (if so delegated by TACC). As you study LHA/LHD NATOPS, you'll soon discover that the document has much more to say about AATCC than it does TACC. That is partially because AATCC is part of ship's company, and performs many of TACC's roles when a TACRON Det is not embarked. While AATCC is perfectly capable of running things from the "we're an integral part of this floating airport" aspect, TACC is in fact the integrator of the overall ATF/ESG. We're responsible not only for what's happening air-wise on the flagship, but all the other ships of the ATF/ESG as well...we have to make sure that LAMPS helicopters, Marine helicopters on other ATF/ESG ships, and shore-based fixed wing aircraft all come together and work well as a team in deconflicted airspace.

A strong TACC and strong AATCC are valuable partners with the capability for synergistic operations, *if* they pull together for a common purpose early on in the workup cycle. Unfortunately, what often happens is something FIR Syndrome.¹¹ This is a very common phenomenon whenever ARG/MEU staffs and their NSEs come aboard for the first time. You must see this from the ship's perspective: they had a great thing going until all these "outsiders" showed up! Plenty of room in berthing, plenty of hot water, short lines in the gym, and (more importantly for our discussions) they were in charge of everything. Now, suddenly, these interlopers are barging in and taking away large chunks of their responsibility. There is naturally going to be some friction involved. To avoid confusion and conflict, the roles and responsibilities of both TACC and AATCC need to be clearly stated in documents like the OPGEN and OPTASK AIR.

1.6 TACC SPACES

The Tactical Air Control Center is the space on the amphibious flagship where TACRON dets ply their trade. It's equipped with a variety of radar consoles, radios, and command & control equipment that will vary from ship to ship. Typically though, it will contain the following:

- "Scopes." The most common is the "ACDS" (Advanced Combat Direction System) consoles. It allows operators to track targets with live radar video, symbology and Link-11 (TADIL-A) remotes. This is the basic workstation for the Operations Specialist (OS) rating. ACDS consoles are linked with similar consoles in the Combat Direction Center and Flag Plot. It is very easy for operators at remote stations to exchange information on air and surface targets using this system. TACC may also have an "ATC-DAIR" (Air Traffic Control-Direct Altitude Indicator Readout) scope. It's designed for (you guessed it) air traffic control, and is primarily used by the Air Traffic Controllers (AC's). It does not have Link-11 capability, and target information generated on this console is not linked or shared in any way with the ACDS consoles, but it's great for giving vectors.
- Displays. This can range from something as sophisticated as a Large Screen Display to something as cheezy as a scratched-up piece of Plexiglas with backwards writing on it. They're used to keep track of

¹⁰ Often still called by its earlier name, MEU Service Support Group (MSSG).

¹¹ Flagship Invasion Resentment Syndrome

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everything from the tactical situation, to the ATO, to fighter status, to the phone number of the barber shop. Typical items:

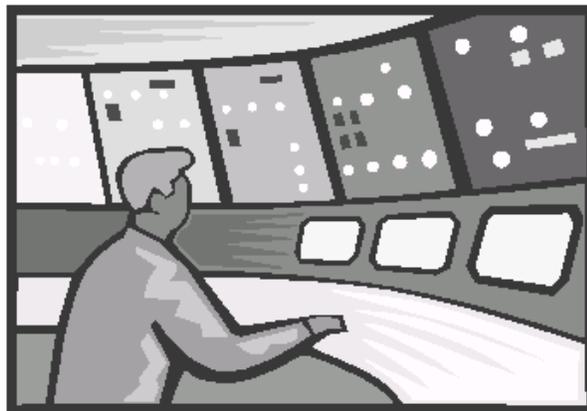
-LSD. The Large Screen Display will portray Link-11 remotes, local tracks, airspace boundaries, coastlines and other current tactical information. It repeats the display of a selected ACDS console with everything except radar video. Depending on your ship's C4I configuration, the LSD may be able to display JMCIS information as well.

-ASTABs. Automated Status Boards can be tailored to display a variety of information, much of which will be automatically updated. Information you place on your ASTAB in

TACC (relating to, say ATO missions in progress) can be viewed on ASTABs located in other key command and control spaces.

Once you train the Flag Watch to get the information they need off of your ASTAB, the number of phone calls they'll make to you requesting routine updates will drop off quite a bit, *which is good*.

-Status Boards. Like ASTABs, but they're powered by sailors using crayons. They're a little bit slower than ASTABs, but they never "freeze up."



Proper setup and management of your displays can make or break information flow within TACC.

1.7 SPREADING THE WORD

SIPRNET Chat. Groups of watchstanders throughout the flagship/ARG may set up a Microsoft Net Meeting® session to share key information, and maintain a "comms cadence" during execution of amphibious or air missions. For example, the HDC Officer, TACC Watch Officer and Flag Watch Officer might initiate a session during flight ops to track the progress of ATO air missions. Bandwidth permitting, other ships in the ARG might join in as well. Another session might track progress of the Execution Checklist during MEU(SOC) missions.

-Radios. No matter how many they give you, there won't be enough. Some dets have actually installed their portable PRC-113 in TACC, and run an antenna cable to the superstructure in order to enhance their communications capability. That's a great idea, but be sure to check with the combat systems people on the ship first.

-Internal communications. Telephones and a variety of intercom systems. People are inherently lazy, so everyone uses the phones. Teach your people to use those other pieces of equipment early on, and force other people to call you using something other than the phone. Life will be better if you do.

1.8 TYPICAL ESG/MEU MISSIONS

Typical CVBG missions revolve around blowing things up, sinking them or shooting them down, or at least threatening to do so. Fun as this may be, sometimes a superpower has to be able to do more, like capturing territory or assisting in disaster relief. That's where the ARG/MEU comes in.

Some typical missions include

1. Amphibious Assault. Your classic "Sands of Iwo Jima" type of landing, involving both surface and air assault.
2. Amphibious Raid. Similar to an amphibious assault, but with a planned withdrawal. Sort of a hit & run deal.

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3. Airfield Seizure. Capturing an airport (intact) for your own use. The only sure way to get a good parking space at most airports.

4. Noncombatant Evacuation Operations (NEO). Getting our civilians out of some hot spot where things are going to pot.

5. Tactical Recovery of Aircraft & Personnel (TRAP). The classic O'Grady-style rescue mission. Differs from CSAR in that we put troops on the ground. A downed aircraft can be repaired (kind of like armed AAA road service), or at least sanitized (crypto removed, blown in place, etc.).

6. In-Extremis Hostage Rescue (IHR). Normally a special forces mission, the MEU can perform this under emergency conditions when the "normal" people who do this can't get there in time.

7. Civic Action Operations. Instead of always killing people, sometimes it's more socially correct to feed them or build stuff for them.

8. Humanitarian Assistance/Disaster Relief. The Tsunami of 2004 and Hurricane Katrina are two very recent examples.



HISTORICAL FACT: No TACRON units were present to support the landing at Gallipoli. Who knows how history may have been changed if they *had* been...

1.9 WHAT'S THIS "R2P2" STUFF!?

"R2P2" is shorthand for the "Rapid Response Planning Process."¹² In plain English, it's the methodology that the Marines use to plan a complex mission in a very short period of time. It involves a set number of steps (six) that allows a battle staff to study the situation, enemy, terrain, study alternate courses of action, decide on a plan, work out the details and prepare to execute it. A well-trained battle staff can receive a mission over the command net, plan it, and begin execution well within the six hour standard. It's like a football 2-minute drill in some ways. We devote a whole chapter to it later on...

Big Take-Aways...

- **TACC is the Tactical Air Control Center, located on the ATF or ESG flagship.**
- **TACRON dets man the TACC**
- **TACC is the premier air control agency for the ATF/ESG**
- **TACC controls aircraft though:**
 - OPTASKS
 - ATO, ACO, SPINS
 - Procedural Control
 - Positive Control
 - Advisory Control

All roads lead to TACRON!

¹² You may hear that it actually stands for "Really Rapid Power Point," but that's just an urban legend.

*Auctor opus laudat.*¹³

CHAPTER 2

Commentaries on NTTP 3-02.1.3

2.1 THE PURPOSE OF “AMPHIBIOUS/EXPEDITIONARY OPERATIONS AIR CONTROL”

According to the publication notice, the NTTP “describes relationships between the navy Tactical Air Control Center (TACC) and other agencies involved in the coordination and control of aircraft during amphibious/expeditionary operations. It also describes the tactics, techniques and procedures employed by Navy Tactical Air Control Squadrons (TACRONs).” That’s the official explanation. Here’s the informal explanation: we needed something akin to NATOPS to codify the way we do business, and we needed something official to codify our mission to the rest of the Navy.

TACRON-101 gives you an informal overview of TACC and its mission; NTTP 3-02.1.3 is the official, no-kidding, I’m-serious-this-is-my-job take on tactical air control.

Who should read it?

YOU should read it! Go and get a copy and open it up. Now.

The NTTP is *must* reading for the Det OIC, Ops O, ATO writer, Det Chief and watch officers.

Cover to cover.

You will be tested.

TACC Supervisors should be familiar with chapters 8 and 9.

When an ATF, ESG or old-timey ARG stands up, there seems to be a perpetual “rock-paper-scissors” game that’s played between those quoting NATOPS, those quoting SOP and those quoting doctrine. You need to be able to quote all three effectively in order to play the game. Well, this NTTP is your “doctrine” component.

How does it fit in with the “training plan”?

Did we mention that you *will* be tested. TACGRU One is developing a consolidated training plan. The NTTP is the capstone document in that training syllabus. Expect to take a “NATOPS Open Book”-style test as part of your training. This is important stuff.

¹³ An author praises his own work.

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Let's begin by taking a quick overview of the NTTP. The remaining portion of this chapter will give you a little summary of each chapter in the NTTP, along with what we think are the most important take-aways.

The Introductory Chapter

Chapter 1 provides an overview of amphibious air operations, comparing and contrasting the capabilities of an Expeditionary Strike Group (ESG) with a larger Amphibious Task Force (ATF). It also contains a discussion on Marine Corps aviation and its functions.

The Navy is in a state of transition. New concepts and strategies seem to find their way into message traffic and high-power Beltway briefings almost daily. Part of this comes as continuing fallout from our victory in the Cold War,¹⁴ and part of it comes as we figure out the best way to fight the terrorist wars. The key word to remember is “transformational.”¹⁵ As the Navy's vision of Sea Power 21 continues to evolve and mature, we'll no doubt see some changes and refinements on how we use amphibious/expeditionary forces to project power from our base at sea. At the time of its writing, the following trends were in play:

- The old Amphibious Ready Group (ARG) had been replaced with the Expeditionary Strike Group, which is essentially an ARG augmented by considerable CRUDES and SSN firepower. ESG's were considered experimental, with two competing models being tested. The East Coast model had the ESG being commanded with an amphibious squadron (PHIBRON) Commodore; West Coast ESG's were commanded by a flag or general officer. Our take on the experiment is that TACC's role remains essentially the same regardless of who's sitting in the “big chair.”¹⁶
- If a Carrier Strike Group (CSG) and ESG merged, they would become an Expeditionary Strike Force (ESF). Details on the command relationships involved in an ESF construct are somewhat sketchy, but the NTTP offers some tactics, techniques and procedures for ESF integrated air operations in chapter 9.
- A really big amphibious motorcycle gang is still termed an ATF, but the terminology is still being debated.

The chapter gives you some good working definitions of the amphibious force and embarked MAGTFs involved with each. The most common type of amphibious force TACRON detts deploy with is the ESG/MEU. The big take-away, though, is the concept of scalability. You can grow the size of the MAGTF (and the amphibious task force which carries it) depending on the type of mission involved. The TACRON presence associated with each size of force is scalable as well.

2.2 THE NAVY TACC AND ITS MISSION

Chapter 2 introduces the TACC and its mission. This is where you'll get the doctrinal meat of what you do and how you fit in. The chapter discusses the roles of the TACC afloat, its place within the ATF/ESG, and the composition of a typical TACRON detachment.

¹⁴ Final score: America: 1 Bolsheviks: 0

¹⁵ This is *the* buzzword of the new millennium. Use it as often as you can during briefs, cocktail parties and on your FITREP submissions.

¹⁶ There does, however, seem to be a clear correlation between the seniority of the OTC and the number of briefs the TACRON guys have to attend.

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The chapter begins with a basic laundry list of primary TACC missions. These are the kind of things which should be in your OPTASK AIR; it defines who you are, what you do, and how you fit in.

You'll find a basic discussion on scalability (we use that term a lot in the NTTTP), as well as a good description of the generic TACC spaces located in the LHA and LHD class of ships.¹⁷

Det Composition

There's a good description of the TACRON det's composition. Although the text indicates that the basic complement for a det is five officers, we've been sending several dets to sea with a sixth officer. The sixth officer gives the det greater flexibility is providing a liaison officer when required to the CAOC, CSG or other shore agencies in theater when required. A list of typical LNO¹⁸ destinations is included in the chapter. No detachment OIC is wants to give up his people willy-nilly. The CAOC LNO is one example of a high-payoff, big return for your bucks-type investment. Theoretically, you should get everything you need from the CAOC by merely communicating with them via SIPRNET, TBMCS, and record message traffic. It doesn't always work out that way, though. The best guarantee to get what you want & need is to have your own rep on-scene.

What kind of "TACC" are we talking about!?!?

There are two flavors of "TACC:" the Navy Tactical Air *Control* Center and the Marine Tactical Air *Command* Center. The NTTTP deals, appropriately enough, primarily with the Navy version. **When you see "TACC" mentioned in the NTTTP, think Navy TACC Afloat.** If we're talking about the Marine version, we'll say so plainly.



(From Paramount Pictures)

The TACC Supervisor ("TACC Supe") is responsible for the day-to-day functioning of the TACC watch team.

TACC WO and TACC Supe

The TACC Watch Officer and TACC Supervisor form the crucial core of the ESG's air watch! The TACC Supe will run the watch floor, making sure the individual watch positions execute their missions successfully. It is critical for the TACC WO to fully brief the Supe on the day's ATO, and any special missions. We recommend that both the TACC WO and TACC Supe attend the Confirmation Briefings (see the R2P2 chapter) if at all possible. The better they understand the mission, the better the air portions of the mission will go!

AC's and OS's

Air traffic controllers (AC's) and operations specialists (OS's) comprise the brains and muscle of

the det. These two ratings combine synergistically to give a typical TACRON det unprecedented flexibility and capability. Not only do they form a potent air control team afloat, each det has personnel trained to act as expeditionary controllers. These people undergo rigorous Marine ATC Mobile Team (MMT) training, and are capable of augmenting USMC air control personnel ashore.

¹⁷ Use these figures for comparison only. Your actual TACC may differ.

¹⁸ It stands for "Naval Liaison Officer," or "Liaison Naval Officer," or something like that. Another common term for LNO is "hostage."

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The chapter ends with a description of a Navy TACC using NTACS¹⁹ construct. This is a very useful tool for describing your det composition along functional lines.

2.3 AIRSPACE CONTROL AGENCIES

Chapter 3 presents an overview of airspace control agencies commonly involved in expeditionary air operations, both afloat and ashore. It describes how Navy TACC fits into the overall air control scheme from a JFACC/CFACC perspective. It also describes the division of labor between TACC and the flagship's Amphibious Air Traffic Control Center (AATCC).²⁰

As a control agency, TACC fits well with the Naval Command & Control of Air Operations (NC2AO) concept, and is an important component of the JFACC air control construct. Oddly enough, the greatest misunderstanding of TACC's role occurs "within the lifelines" of the flagship.



Watch out for those ricebowls!

Ricebowls and Turf Wars

TACC and AATCC are often involved in embarrassing but needless "turf wars" during the first few days of workups. This is due in part to some ambiguities between LHA/LHD NATOPS and other sources of doctrine. It stems also, quite frankly, from the fact that both TACC and AATCC contain large numbers of bright and highly-trained ACs, all of whom want to take on as much responsibility as possible.

AATCC is the shipboard air control agency responsible for maintaining ATC in the vicinity of the LHA/LHD. They're responsible for IMC approach and departure control to and from their respective ship. TACC's mission is the tactical control of all fixed and rotary wing aircraft beyond the control zone of each ship. **Included in TACC's**

mission is ship-to-shore movement of vertical assault missions, both fixed and rotary wing. This is a recent change, codified both in NTTP 3-02.1.3 and in the recently revised NTTP 3-02.1, *Ship to Shore Movement*.

So, in a nutshell: AATCC (in conjunction with PriFly) is responsible for safe launch & recovery of aircraft from the LHA/LHD. Individual ships' towers (LPD, LSD, CRUDES) are responsible for safe launch and recovery of aircraft within their respective control zones. TACC is responsible for overall air traffic control throughout the rest of the ATF/ESG's airspace, *however that airspace is defined*.²¹ Furthermore, TACC is responsible for control of all aircraft on mission profile, unless a specific warfare commander or air control unit (ACU) has that aircraft for control. We said it in the first chapter, but it bears repeating: ***the roles and responsibilities of TACC and AATCC must be clearly spelled out in ATF/ESG governing documents like the OPGEN and OPTASK AIR, and reinforced in documents like the ATO, ACO and SPINS.***

¹⁹ Navy Tactical Air Control System. This is the way the Air Force describes Navy tactical air control at their big course at Hurlburt Field, Florida.

²⁰ This is the new, official name. You still hear this space most commonly referred to as "HDC," the Helicopter Direction Center. Same-same.

²¹ It doesn't require the formal establishment of an AOA. When working in a mature joint/combined air environment, any one of several airspace control measures can be used to define TACC's airspace. In a blue water environment, in the absence of any FAA or ICAO restrictions, TACC controls the airspace within the control area. Chapter 3 of the NTTP spells this out clearly. It will be the Det's job to make sure this is understood via the OPTASK AIR, face-to-face briefings, etc.

Evolution and Clarity

It wasn't always this way. Back several years ago, TACC was responsible for just fixed wing control (CAS and other missions) whenever an AOA (amphibious objective area) was established. That perspective limited TACC to only having a mission when an AOA was activated. If an ARG went for a 180-day deployment without ever doing an operation requiring the establishment of an AOA, the TACRON det was theoretically only along for the ride!

It's TACC's job to make sure AATCC and the other ships' towers have the airspace they need to safely launch and recover aircraft from their decks. It's also TACC's job to make sure that the OTC's concept of operations are carried out, and that the warfare commanders can execute their air missions effectively and safely. That means that TACC has to have situational awareness throughout amphibious airspace, and that TACC will typically control the aircraft operating in that airspace, subject to the exceptions noted above.

Aircraft "fraggged" for warfare commander support missions may conduct their missions under ICEPACK control, or they may be controlled on a discrete frequency by a dedicated ACU. In this latter case, TACC must still maintain situational awareness on the aircraft operating in its airspace. The ACU must remain in voice communications with ICEPACK so that it can respond immediately to TACC direction. The NTTP discusses interaction with the warfare commanders further in the chapter on command relationships.

The chapter also introduces the Supporting Arms Coordination Center, describing the organization and layout of a typical SACC. The TACRON Det designates one officer (usually with CAS experience) as the Air Support Coordinator (ASC). The chapter concludes with a description of USMC aviation command and control, introducing the MAGTF air control agencies Navy TACC will interact with during various types of assault and fire support missions.

2.4 COMMAND RELATIONSHIPS

Chapter 4 discusses command relationships within the ATF/ESG's Composite Warfare Commander organization, describing TACC's interaction with the OTC's²² warfare commanders. Having a solid understanding of this chapter will help you immensely at your first meetings with the staff, and your first warfare commanders' conferences. Historically, TACRON OICs who have gone into these sessions without a firm understanding of their mission, their duties, and their overall place within the CWC construct get a very rude and painful awakening. Those, on the other hand, who arrive well versed in TACC doctrine, are able to "mark the corners" of their territory effectively. You must remember that most of the known world has no idea what TACC or TACRON is. This is especially true of people arriving from the CRUDES or CV worlds who suddenly find themselves part of an ESG. You don't "fit" easily into their previous paradigm of Aegis cruisers, CAG Ops, Strike Ops, CVN "Strike Control" and the ubiquitous E-2C.²³ You must educate them quickly, and the best way to do that is to be well

²² Officer in Tactical Command, the ATF, ARG or ESG Commander. This may be a PHIBRON Commodore or a Flag/General Officer, depending on the composition of your force.

²³ Very early in the workup cycle, one ESG commander pointedly asked "Why do I need a TACC when I have my Aegis cruiser and HDC?" A few short months later, the ESG staff understood the answer and the Admiral was quite openly praising the work that TACC did. Your job as the TACRON det (especially the OIC) is to make the answer to that question so obvious, that nobody will think to even ask it in the first place!

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versed in doctrine. That's why it's so important for you to have a firm understanding of this NTTP under your belt prior to your first meeting!

As is true of any discussion addressing command relationships, this chapter is replete with wiring diagrams aplenty.

SAR Mission Coordinator

The OTC will designate an agency within the ATF/ESG to act as SAR mission coordinator (SMC). This duty falls quite often, though not always, to the TACC. Find out early in the workup cycle if you will be SMC. If the answer is "yes," then make sure you get the right people to SAR School, and start working on that OPTASK SAR.

TACC as AREC and its interaction with the Warfare Commanders

You will be interacting with the warfare commanders²⁴ early and often during the workup cycle. In its role as air resource element coordinator (AREC), TACC will be responsible for matching available sorties (both organic to the ATF/ESG and extrinsic) against warfare commander air



TACC is the ATF/ESG Commander's primary air control agency. Period.

mission requirements, and balancing the whole lot against the mission requirements of the MAGTF. This interaction is dynamic and on-going, reaching a crescendo in the daily air planning (*aka* ATO) meeting. As you might expect, there are rarely enough assets to satisfy everyone, and the process is often more art than science.

The bottom line is this: TACC is the "go-to guy" for all air mission planning, coordination, and execution. The warfare commanders will generally see the value in this early on, and are very good about requesting external asset support from TACC. Problems seem to occur most frequently with the tasking of ISR²⁵ assets. It's not uncommon to have an unexpected P-3 show up for a mission in support of the ESG or MAGTF. This happens when the JIC²⁶ or MAGTF "2 Shop" schedule an asset on their own. These "sweetheart deals" can really mess up a fly day. Engage the intel types early on. It's fine if

²⁴ The three main "customers" among the warfare commanders will be the Air Defense Commander (ADC), and the Sea Combat Commander (SCC). Sometimes SCC duties are broken down into two separate areas of responsibility: Undersea Warfare Commander (USWC) and Surface Warfare Commander (SWC). ESG's typically use the SCC concept, but ARGs often divided the responsibilities up.

²⁵ Intelligence, Surveillance and Reconnaissance

²⁶ Joint Intelligence Center. The LHA/LHD equivalent of CVIC.

they do all the initial coordinating on asset availability, but they must include TACC in the process at some stage, the sooner the better!

2.5 TACC ROLE IN AIR DEFENSE

Chapter 5 of the NTTP explains TACC’s role in the ESG air defense organization. Amphibious forces now enjoy a robust air defense capability provided by CRUDES ships. TACC’s role in assisting the air defense commander’s air defense identification zone (ADIZ) gets explained here. The chapter introduces procedures designed to facilitate ADIZ processing of large numbers of assault helicopters and fixed wing aircraft working in the littoral environment.

This was one of the big areas of confusion early in the ESG experiment. Back in the day, TACC often functioned as *the* air defense commander for an ARG. Our role is much better suited to ADIZ coordination (callsign GREENCROWN), as this chapter explains. Telling that story to the assembled masses at your first warfare commander’s conference is one of your most important missions.

Defense of the ESG

Unlike a CSG, an ESG or ATF doesn’t come with a robust fighter capability. The old-time ARGs put to sea with little more than their own point defense capabilities. The theory was that if ARG was going to venture in harm’s way, a CRUDES ship would show up to provide for air defense. Otherwise, the CRUDES ships would be busy protecting “high value units.” The ARG did, however, have some very considerable firepower in the form of embarked MEU. There arose the concept of DATF (defense of the ATF). DATF instructions detailed how Marine infantry and air defense weapons could be employed to protect the force during periods of critical vulnerability such as straits transits. There were issues, however.²⁷ Those Marine assets were meant first and foremost to be employed for the Marines by the Marines; why couldn’t the Navy defend itself? The Navy would counter with something to the effect that all that USMC equipment won’t do anybody any good if it’s sitting at bottom of the sea. And so the debate went on...though usually things between CATF and CLF got resolved in time to actually make the straits transit, but it really depended on the degree of collegiality between the two commanders.



USS BELLEAU WOOD (LHA-3) slips beneath the waves upon completion of her final mission as Missile Sponge for RIMPAC-06. A chilling foretaste of what could happen if TACC and the Warfare Commanders don’t work together!

²⁷ Some pesky thing called “Title 10”

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ESG's certainly have more self-defense capability with the advent of full-time (or at least theoretical full-time) CRUDES support. Nevertheless, it makes sense for an ESG to make use of its USMC firepower when the situation dictates. There's an NTTP dedicated to this topic: NTTP 3-02.1.4 "Defense of the Expeditionary Strike Group." It's mandatory reading for TACRON watch officers, and it will do a much better job of explaining the tactics involved than our little discussion here does.

Building SA for the Air Defense Commander

As we said earlier, TACC is no longer in the business as Air Defense Commander, but our role in building situational awareness for the ADC is *huge*. Amphibious airspace is a busy and confusing type of environment. The ADC has to maintain a coherent air picture amidst all the helicopters transiting from multiple launch points and landing zones, fixed wing aircraft performing CAS missions, UAVs...all in a very near-land environment. TACC has their fingers directly on the pulse of the air picture (in fact, we're *directing* the air picture). Using data links, voice coordination, and SIPRNET chat, TACC builds SA for the ADC, keeping the warfare commander appraised to current execution status of the ATO and air plan.

The ACE and IFF Reliability

One of the things that Air Defense (and Task Force) Commanders really worry about is IFF reliability. Especially IFF Mode IV reliability. If they reliability is poor, they'll look to the ACE CO to fix it, that's true. But it's also true that their Sauron-like death ray gaze will burn through the TACC OIC on its way to immolating the ACE guys. Why? Well 'cause you're the ATF/ESG Air Officer, that's why. IFF reliability can tend to be a bit of an issue early in the workups. With prompt attention, however, this is something that should be quickly solvable. One solution is for aircraft with "sour packages" to be denied permission to proceed on mission profile.²⁸ This is a very common practice, and often spelled out in the OPTASK AIR DEFENSE and/or OPTASK AIR. If sour aircraft are forced to RTB, and the MAGTF is forced to exercise a "bump plan" to adjust for one less helicopter on the mission, the problem of bad IFF tends to get fixed rather quickly.

ADIZ Coordinator

The ADC may designate a separate unit as the air defense identification zone (ADIZ) controller,

Take a Lesson from Nature:

- Carolina Parakeet
- Passenger Pigeon
- *What did these extinct species have in common?*



Neither had a working Mode IV

TACC/FADIZ COORDINATION

- Friendly acft check in with Greencrown when entering designated airspace
- FADIZ duties include:
 - Coordinating airspace management with TACC
 - Comms with all aircraft operating in amphibious airspace on "Greencrown net" Conducting Mode 2/4 checks on all aircraft
 - Ensure proper ID of all aircraft in ADZ
 - Ensure all aircraft comply with RTF and MRR procedures
 - Coordinating aircraft handoff between TACC and adjacent AD agencies
- **TACC is uniquely situated to serve as primary agency for Greencrown Coordination in ESG/ATF**

²⁸ The OTC has to make the call for a sour aircraft to proceed on mission profile. It's that important.

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callsign GREENCROWN. It's GREENCROWN's job to identify and deconflict (sanitize) aircraft entering/departing designated airspace. Chapter 5 of the NTTP goes into considerable detail describing the procedures that GREENCROWN and ICEPACK will use to make this all happen.

One of our goals is to defend amphibious airspace without making it too difficult for aircraft flying in the airspace to do their job. Obtaining IFF checks is one of the big component of GREENCROWN's job. Since helicopters launching from the littorals tend to go "feet dry" on mission profile rather quickly, it's important to get the IFF checks done expeditiously. Rather than switching aircraft to a discrete frequency²⁹ (as is typically done in CSG operations), the preferred tactic is for ICEPACK to conduct the IFF checks on its control frequency. GREENCROWN monitors the process, and ICEPACK pushes "sweet/sweet" information to keep that SA flowing. The NTTP describes the tactic fully. Be sure you are conversant in the procedure, and get the ADC and ACE briefed up (and bought in) on the process early in your workups.

To the greatest extent possible, GREENCROWN checks should be conducted on a single frequency to minimize the number of radio switches aircrew have to make while departing the ESG/ATF. In most cases, GREENCROWN checks can be conducted on ICEPACK's Tactical Air Traffic Control (TATC) frequency using the following procedures. The FADIZ coordinator and TATC controller sit next to each other in TACC. The FADIZ coordinator is responsible for conducting all communicating aircraft status

TACC-FADIZ "Cadence"

- All aircraft entering/exiting amphibious airspace
- CAS acft entering/departing holding stack
- CAS acft off target and intentions
- Acft with negative Mode IV and intentions
- Control of LAMPS helicopters
- Acft under ICEPACK control with emergencies or lame duck procedures in effect
- UAV missions operating in amphibious airspace
- Changes in ACMs that affect AD geometry
- Any system casualties

ICEPACK and GREENCROWN need to develop a "comms cadence" (over chat or voice, your choice) that promotes a constant exchange of information. Your cadence should include these items.

to GREENCROWN (chat or voice coordination circuit), and rapidly passing instructions from GREENCROWN to the TATC controller as required. The TATC controller is responsible for all communications with aircraft on the TATC frequency. The goal is to keep ICEPACK, for safety of flight reasons, the only controller talking on the TATC circuit. If GREENCROWN must communicate directly with an aircraft under ICEPACK control, ICEPACK will switch that aircraft to a discrete frequency.

A Simplistic Little Air Defense Primer

Even though we said that TACC is no longer in the ADC business directly, we should still be prepared

to assist the ADC in maintaining vigilant surveillance of our airspace. After all, TACRON will have a significant number of eyeballs watching radar scopes at any given moment; it's not unreasonable to expect that some guy in TACC may be the first operator to detect the presence of a new air contact. With that in mind, here is a brief discussion on "the basics:"

Remember this little mnemonic: "**DETeR** air attack." Your job is to **Detect, Evaluate, Track** and **Report** all the air contacts within sensor range of your ESG.

²⁹ Helicopter crews have expressed the desire to limit the number of radio switches they have to make while flying at low altitude. Understandable.

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1. **Detect.** This is simple: Watch the scopes! It's a matter of developing and keeping a good scan using your best air search radar. Avoid the temptation to go to a small scale. In the "old days," it wasn't uncommon to walk into TACC or CIC on an amphib and find every scope on a 32, 16 or even 8 mile scale! That's no way to do early detection. If you have a 200 mile air search radar, then you should jolly-well keep at least one scope on a range scale that takes full advantage of your radar's capability. Watch the scope; follow the sweep. New targets will appear, but you'll only see them if you're watching the scope.
2. **Evaluate.** You detect the new air contact on the first sweep. By the second sweep you should be checking for IFF modes and codes. Is it Mode III and C only? Does it have a Mode II? (Don't forget, the Iranians have Mode II too.) Most importantly, what about Mode IV? Based on what IFF is telling you, you'll have a good idea whether this guy is friendly (friend or foe, get it?). If your system doesn't evaluate the target automatically, you'll have to manually intervene. The automatic identification programs work *some of the time*. They are not foolproof. The thing you don't want to see is any unknown, unevaluated air track on your scope. Also, don't forget the importance of the EW module in identifying tracks. They have a great deal of electronic information that they're gathering using a variety of unmentionable techniques.
3. **Track.** This is simple. You've acquired and evaluated an air target, now don't lose it! Once again, don't trust the automatic tracking system; keep an eye on the target yourself. If it looks like it's going to "fade," keep a close eye on it. If it truly fades, report it. Don't let tracks acquire and drop with some sort of cavalier "easy come, easy go" attitude. Every track on your scope ends only one of three ways: it travels beyond the max range of your radar, or it fades (lost in land clutter or atmospheric duct), or it lands (crashing or being shot down is merely a variant form of "landing.") Just losing track of it or forgetting about it is not a viable option.
4. **Report.** All this information you've developed on the target is useless unless you share it. Report the track using Link-11 or Link-16 software. Back it up with a voice report over your air defense command and reporting (ADC&R) radio. The pubs have the format, and what you want to do is let everyone on the net know if you have a new air track (identify by track number), or if it's an established track, what change of status is prompting your report.

The DETeR sequence described above is really all you need to know to get started. Bottom line: just because you may have a CRUDES or two out there with you, that doesn't mean you should ignore what you're seeing on your scopes. If you see an unevaluated track out there, ask the ADC! They'll be glad to know someone else is out there helping them maintain the big picture.

2.6 JOINT AIR OPERATIONS

Chapter 6 describes joint and combined air operations, and explains the procedures and products the TACC plans section will ensure that the ATF/ESG and MAGTF concept of operations is understood and included in the joint forces air component commander's (JFACC)³⁰ airspace control plan (ACP) and air tasking order (ATO). The chapter also describes the procedures the TACC current operations watch will use during ATO execution. You will probably get a belly-full of JFACCery in several courses which you'll take as part of your training track, but this chapter tries to put all that joint air knowledge into the ATF/ESG perspective.

³⁰ These days, you actually hear more about the CFACC, which is the combined version of the JFACC. There's a tendency to forget that the JFACC and CFACC are people, not organizations. The JFACC fights the war from the JAOC (Joint Air Operations Center); the CFACC from the CAOC. Or, you can refer to the centers in generic terms as simply "the AOC."

THE AIR PLAN vs. the air plan

Every fly day, the flagship will put out a very handy document called “the air plan.” It will tell you everything that’s happening, air-wise, on the flagship’s flight deck. It usually has a very entertaining cartoon on the back. This is not to be confused with THE AIR PLAN, which is the big picture plan for the entire ATF or ESG. It may be promulgated as the ATF/ESG Air Plan Message, a local ATO (or ATO-like knockoff), or as a DOTAH.³¹ There is a very natural tendency to confuse the two, especially since the lion’s share of sorties tend to get generated by the ESG flagship.³² The product TACC puts out applies to the entire ATF/ESG, not just the flagship. TACC must keep this concept first and foremost in their mind.

The ATO Sausage Factory

The chapter concludes with a discussion of the process used in developing the daily air plan for the ATF/ESG. There’s some very practical information to be found here, such as a description of the Air Planning Board.³³ This is the primary mechanism/process the ATF/ESG uses to plan and schedule air operations. This process is often referred to as the “sausage factory.” Just like its namesake, the end product can be pretty palatable, but watching it get made is likely to make you feel sick. The TACRON chairs the APB. The chair may be the Det Plans Officer, or it may have to be the OIC. But the bottom line, the big take-away is this: TACC runs this meeting. The OIC is the ATF/ESG Air Officer. The final product (either local ATO or air plan message) is an order signed by the OTC.³⁴ As such, it’s the TACC’s responsibility to make sure this runs well.

Ya know, Fred...this reminds me a lot of my days back in the ATO production shop...



2.7 TACC AND SACC

Chapter 7 provides insight into the supporting arms process, and details how TACC and the Supporting Arms Coordination Center (SACC) work together to ensure close air support (CAS) missions are safely and effectively employed as part of an integrated combined arms process.

“Supporting Arms,” for our purposes, refers to the simultaneous employment of Close Air Support (CAS), Naval Surface Fire Support (NSFS) and ground-based artillery (ARTY) combined in such a way that each type of fire is lethal and effective against the enemy, but safe for the good guys. The Supporting Arms Coordination Center (SACC) is located adjacent to TACC. SACC is the command & control space where these three types of fires are effectively and safely combined in support of friendly maneuver units ashore. By doctrine, SACC is a Blue-Green space containing players from the PHIBRON, MEU, ACE and TACC. Our mission is to coordinate CAS, and to deconflict friendly aircraft (CAS, assault helos, DCA, everyone) with fire missions taking place. It is one of the most complex aspects of amphibious warfare, and also one of the most deadly (in terms of the potential for a

³¹ Daily OPTASK AIR HELO

³² In a multi-large deck ATF, this can get really confusing. That’s why we talk about the “ATO” as much as we do. It’s the overarching document.

³³ APB

³⁴ It is not an “Air Tasking Suggestion”

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fratricide incident). Given the complexity and danger of the supporting arms mission, it's a bit ironic that it's the one of the least-practiced aspects of the ESG/MEU workup and deployment cycle.

SACC is kind of like Brigadoon, a mythical Scottish village that is magically suspended in time, existing for only one day every hundred years. Like Brigadoon, SACC tends to exist in its doctrinal form for only one day during a routine ESG/MEU workup and deployment cycle; the rest of the year it serves as a lounge/office/study hall. During that one day of existence, it's the busiest place on the flagship as it serves as the focal point for a live fire combined exercise that is arguably one of the most dangerous things we do during workups.

During a supporting arms evolution, SACC controls the tempo of fires in support of an amphibious operation. SACC receives requests for fires from the beach, then determines which lethal modality (naval surface fires, artillery, close air support) to apply to the target. Because these forms of fire will travel through amphibious airspace (with the inherent threat of fratricide to friendly aircraft as well as friendly forces on the ground), TACC is intimately involved in this process. TACC's Air Support Coordinator (ASC) works closely with his counterparts in SACC to ensure that they know where all friendly aircraft are located as a fire mission is being assembled. The ASC is the SME (along with the MEU Air Officer) on the employment of CAS, and must be familiar with caps/lims of each aircraft, as well as the weapons they employ. He has a seat at the "star table" in SACC along with the PHIBRON's Gunnery Officer and the MEU's SACC Officer.



(From Columbia Pictures)

A successful CAS effort during SACEX requires an ASC who really gets into his job.

TACC controls all CAS aircraft, handling check in, tanking, and generally managing the CAS stack. When a CAS mission comes up, the ASC will notify the Assistant ASC in TACC, who will determine (based on fuel state, on-station time and weapons loadout) which air mission should be used. TACC will push the CAS mission to its initial point (IP), and direct a switch to the Forward Air Controller (FAC). When the CAS run is complete, the FAC will have the aircraft again switch to Icepack, who will take the BDA report and give follow-on instructions (tank, steer, etc.). During this whole process, TACC and HDC will work together to ensure that all non-CAS missions (assault helos, medevacs, DCA, etc.) remain deconflicted with the fires missions taking place within the amphibious battle space. The above description is a very simplistic rendition of a very complex process.³⁵ EWTGPAC offers a week-long Supporting Arms Coordination course that does an excellent job of preparing the ESG/MEU for this mission.. Pre-deployment supporting arms training consists of two main events: The SACC Course (taught by

EWTGPAC/LANT) and the SACEX, a two day supporting arms live-fire exercise. The SACC Course is an excellent school, and is mandatory for all TACC officers and air controllers. It's normally given after the Staff Planning Workshop but (thankfully) before the SACEX, and it gives the ESG/MEU team

³⁵ This example does not include the sequence of events or comms flow in place if the Marines have a direct air support center (DASC) established.

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a chance to learn and practice this deadly art in the classroom and lab. The point man, from TACC's standpoint is the ASC³⁶, who should have either a CAS or MACG background if at all possible. The Det IS also plays a key role; the whole reason TACRONS have an intel section is to provide targeteers capable of working the SACC problem.

The week of instruction culminates with a SACC Team Trainer using the NWGS gaming system. This is a mandatory course for every TACRON det. At a minimum, the Det OIC, ASC, AASC, IS (and Intel O, if part of the det), TACC Supe and AC LPO should attend. The Supporting Arms Coordination Exercise (SACEX)³⁷ takes place near the end of the workup cycle, usually during the last underway period prior to the SOCCERT/JTFEX. For West Coast ESG/MEUs, this live fire event takes place on San Clemente Island (SCI) at the SHOBA range. The exercise typically features 1-2 CRUDES providing NSFS, artillery and mortars ashore, rotary wing CAS (Cobras), fixed wing CAS (Harriers), and shore or CV-based CAS. TACRON responsibilities include:

- Scheduling (in conjunction with the MEU Air Officer) external air support (tanking and CAS). This can be done informally at first, but should be backed up officially through record message traffic (AIRSUPREQ or other format).
- Designing the ACMs which will define the airspace for the SACEX, and promulgating them in ACO/SPI Ns format. This process involves very close coordination with FACSFAC and range control agencies; this ensures that all range regulations and procedures are fully incorporated into TACC's products and briefs.
- Requesting airspace from the owning/controlling agency. Get as much exclusive use airspace as they'll give you. This must be done by record message traffic, confirmed, and reconfirmed.
- Fully briefing all air participants on the ACO and SPINs. A typical brief-o-rama package will include a mandatory-viewing range safety video (provided by the range) and a PowerPoint briefing that depicts the HIDACZ, control points, procedures, etc. for all concerned aircrews. Imbedded in this brief should be the clear message that ICEPACK runs the show, and nobody will get to the range without dancing to our tune. For external players (CVW, shore-based jets) this will require a face-to-face brief prior to getting underway.
- Preparing the Det through training (SACC Team Trainer and dedicated training in JEWL/JETT labs).
- Controlling all air aspects of SACEX execution, paying particular attention to interlopers/non-exercise aircraft entering exercise airspace.

With proper preparation, training, and attention to detail, the SACEX can be a smooth evolution. Although not a frequent ARG/MEU activity, supporting arms coordination is one of those mission areas that is absolutely essential to overall mission success of the ARG/MEU team.

2.8 AIRSPACE DEVELOPMENT & CONTROL FOR EXPEDITIONARY OPERATIONS

This was one of the first chapters we wrote in the NTP, and it's one of the most extensive. Chapter 8 is a detailed discussion on amphibious airspace development and control. It describes the airspace control measures most commonly employed in support of amphibious/expeditionary operations, and includes a pretty good discussion of high density airspace control zone (HIDACZ) strategies.

³⁶Air Support Coordinator. The AASC is the Assistant ASC.

³⁷ It may be called the "ESG Fires EX," or any number of odd variants.

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Do not neglect this chapter! Understanding how to design airspace is fundamental to your success as a TACRON detachment. Airspace design for a TACRON det is not a passive exercise. You can't just wait around for the Marines to tell you what they want to do. There are more dynamics involved than just throwing up some helicopter routes and hoping it all works out. The ATF/ESG will be dealing with some waterspace management constraints which will impact where they can station the ships. Where the ships are stationed will certainly affect the airspace, because those ships are our bloody airports! You need to be able to design airspace that accommodates the needs of the fleet, the needs of the MAGTF, and the needs of the local civilian & military air control agencies. Oh yes, and you have to make sure the CSG(s) and TLAM shooters are happy with the airspace allocation scheme. You, the Navy TACC, are the ones who need to pull all of this together.

There's a lot more to airspace design than just scheduling a range, though some ESG operations won't require much more than that. There are doctrinal considerations. And yes, quite frankly, there are ricebowl considerations. You don't want to end up in a situation where everyone around you is controlling your airspace except you! Proper and aggressive airspace design is the key.

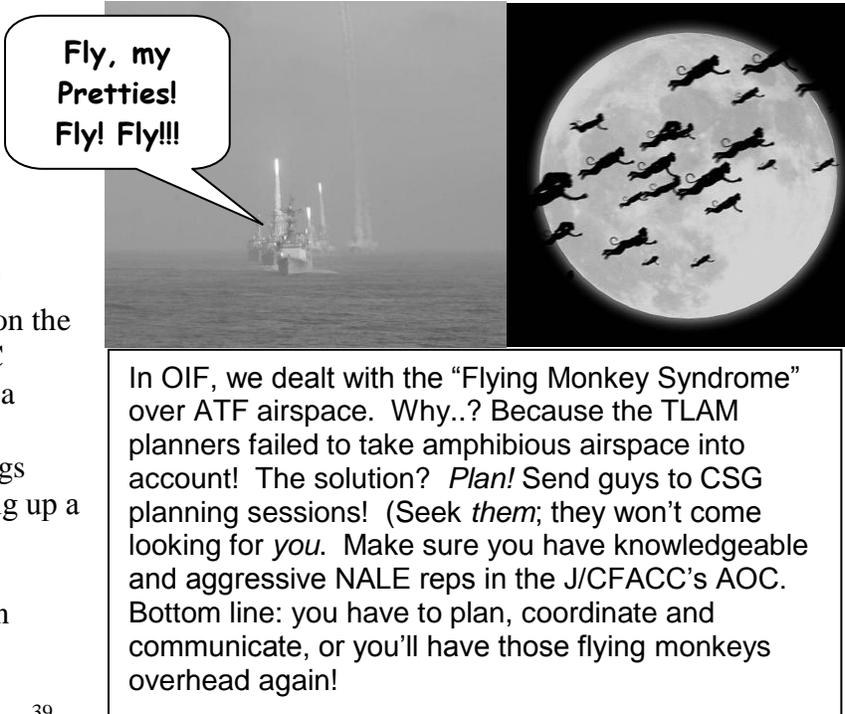
2.9 MAKING IT WORK: TACC OPERATIONS

Here's another meaty chunk of the NTTP! Chapter 9 describes TACC operations in detail, concentrating on the procedures employed by the TACC current operations watch. There is a great deal of practical "how to" information here,³⁸ the kind of things you'll need to know if you're setting up a TACC watch from scratch.

The chapter includes discussions on TACC's role as the Air Resource Element Coordinator (AREC), management of air logistics missions,³⁹ air control during long-range air assaults, air control during operations involving an Expeditionary Strike Force (ESF), and a large ATF supporting a MAGTF consisting of a Marine Expeditionary Brigade (MEB) or Marine Expeditionary Force (MEF).

2.10 COMMS, CATS & DOGS

Chapter 10 concludes the NTTP with a description of amphibious/expeditionary communications requirements and capabilities as it relates to air control. Following Chapter 10 there are a number of useful appendices.



Fly, my
Pretties!
Fly! Fly!!!

In OIF, we dealt with the "Flying Monkey Syndrome" over ATF airspace. Why..? Because the TLAM planners failed to take amphibious airspace into account! The solution? *Plan!* Send guys to CSG planning sessions! (Seek *them*; they won't come looking for *you*. Make sure you have knowledgeable and aggressive NALE reps in the J/CFACC's AOC. Bottom line: you have to plan, coordinate and communicate, or you'll have those flying monkeys overhead again!

³⁸ In other words, this is **gouge**. *Good gravy, man! Do we have to spell it out for you each & every time?!?!*

³⁹ You'll come to know and love the acronym "P/M/C"!

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TBMCS: Blessing or Bane?

The Theater Battle Management System (also known as “TBMCS” or occasionally as “the spawn of the devil”) is the system of record for planning, managing and executing joint air campaigns. This is the system that generates doctrinal products like the ATO and ACO. As of this writing, most LHAs and LHDs in the fleet will have a complete set of TBMCS workstations known as a “host suite.” A TBMCS host suite allows permits its users to enjoy the full spectrum of TBMCS capabilities and applications.

TACRON personnel typically get some entry level TBMCS training at various schools like the JATOPC course at Hurlburt Field or at TBMCS user courses offered by TACTRAGRUPAC/LANT. These courses are good, as far as they go, but they typically don’t go far enough for us. For example, the three week long JATOPC course features an extensive set of lab TBMCS lab sessions culminated by a graduation exercise where students simulate a fully functioning Air Operations Center (AOC). Sounds good on paper, but the problem is this: the course is designed to equip a graduate to walk into an already established and fully functional AOC, find his seat, and begin doing whatever job he may be assigned. That, unfortunately, is *not* what most TACRONites face. TACRON guys walk into a darkened space on a ship containing empty TBMCS terminals. They contain no well-groomed database, and the terminals haven’t been turned since the conclusion of the previous deployment. The TBMCS system administrator is typically an IT3 or IT2 that went to the school, but has no practical experience. TBMCS isn’t one of those systems that the ship’s combat systems officer calls the Captain about at 0200 when it breaks, if you get our drift...

Now here comes the TACRON det at the beginning of the workup cycle. Assuming they can obtain the information from the ACE and other ESG units required to populate the FrOB (friendly order of battle), the det TBMCS experts have to enter this data, being careful not to make any mistakes lest they corrupt the entire database. Then the system has to be groomed. And groomed. A typical USAF AOC or USMC TACC has career experts dedicated to the care & feeding of this system, and we do not. The challenge for us is that there is currently no school or course that teaches you how to do a TBMCS “cold iron lightoff.” That means getting TBMCS to work properly and effectively is a major challenge of nightmarish proportions. Don’t say you weren’t warned. Nevertheless, let’s take a quick look at some TBMCS basics...

2.11 TBMCS OPERATIONAL APPLICATION DESCRIPTIONS

Here’s a quick rundown of some of the applications you’ll encounter in your TBMCS training.

ATO/ACO Tool (AAT)

The ATO and ACO are USMTF⁴⁰ text messages. AAT allows any operator to view the ATO/ACO in text or table form. It also allows the user to filter the content of ATOs and ACOs, meaning that we can just display the information that’s important to us. AAT receives ATO messages from the Theater Air Planning (TAP) and Execution Management (EM) system, and ACO messages from the Airspace Deconfliction System (ADS). The AAT can also receive ATO/ACOs from floppy disk.

⁴⁰ US Message Text Format. USMTF messages are formatted so that they are machine-readable, meaning that various C4I systems can interpret and utilize the data contained in the message text. Theoretically, they are man-readable too. Just one look at a typical ATO will tell you that the machines have an easier time of it than we do.

Airspace Deconfliction System

The ADS application is used to construct and manage airspace and determine if a conflict exists between airspaces.⁴¹ A conflict exists if two airspaces occupy the same point in space at the same time. Some ADS capabilities include:

- Plan and view the use of airspace in upcoming combat operations
- Create, edit, view and delete airspace control measures (ACMs)
- Determine if a conflict may exist among ACMs, and generate a report
- Perform airspace deconfliction over multiple ACM groups
- Display a graphical map of ACMs, and use the map to reate/edit/view ACMs
- Generate an ACO message (very handy)
- Import/export ACMs from/to a floppy disk

Execution Management Control (EMC) and its evil twin ESTAT

The EMC application⁴² assists in monitoring the status of ATO execution. This is the application most likely to be up and running in TACC as we fly the day's ATO. EMC provides TACC watchstanders with the ability to update the missions under their control, view the missions graphically using Sortie Flow, and display missions, airspaces, and bases on the system map. When an air mission launches from any ship in the ATF/ESG, we will use EMC/ESTAT to note that fact. The mission update is then made available to the AOC and updates their displays as well.

This is one of the most useful tools in TBMCS. Even if TBMCS isn't used to generate an ESG's ATO or ATO feeder, once the AOC publishes the official theater ATO, we can use EMC/ESTAT to show our launches/recoveries and airbase status. If you're working in a theater with an AOC, you need to have this application up and running.

The Key to TBMCS Success

Unless you plan from the very beginning, you are likely to fail. You need to make sure your det has at least one individual who is a graduate of TBMCS SYSAD training. That individual needs practical experience; try to send them to an exercise (like RIMPAC, JTFEX, etc.) where they can apprentice as a SYSAD guy in a functioning AOC. There they'll learn some secrets that would be impossible to deduce if they merely go the school and walk aboard the ship cold turkey. Next, promote a culture that views TBMCS as critical to TACC's mission success. It's easy to make a spreadsheet that details your air missions. It's easy to write something that looks like an ATO using MS Word ® or text editor...but a product like that won't fool the big TBMCS system at the AOC! You need to flex and work the TBMCS equipment prior to your first underway. Try to

Remember...If you can
dodge a wrench, you can be
in TACRON!



"Patches" O'Houlihan: Dodgeball legend & former TACC Supe

⁴¹ You probably didn't know that the plural of airspace was airspaces, but that's a direct quote from the USMC Direct Air Support Center Pocket Checklist, 1 May 99 edition.

⁴² There are different versions of TBMCS. Version 1.1.1 of TBMCS uses the EMC function; Version 1.1.3 calls the function "ESTAT" but its features are similar to EMC

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get the system up and running pierside by attempting to “scram in” with another TBMCS host, like the system at the TTGP schoolhouse or a nearby Marine Air Control Group with a functioning TBMCS host. That’s something you have to plan and coordinate for in advance. Finally, train your det to plan and execute ATOs using the system. You may be able to arrange for a dedicated training session using a schoolhouse system at either TTGP or EWTGPAC/LANT, perhaps as part of a TACRON team trainer. Don’t rely on just one individual in your det to be “the TBMCS guy.” You need a trained cadre.

In all honesty, TBMCS isn’t one of the big success stories for TACRONS. Nearly all of the dets can use the system to some extent (downloading & parsing the ATO, using EMC/ESTAT), but less than half of our Dets successfully generate ATOs using the system. That’s embarrassing. If you want your det to really stand out, make TBMCS success a priority.

2.12 ABOUT THOSE “DEAD GUY QUOTES”...

You’ll notice that each chapter begins with some lofty and occasionally pertinent quote from history. All the really fancy doctrinal pubs use this style to legitimize and jazz up their product.⁴³ Most other DoD authors tend to fixate on quotes from WWII, Alfred T. Mahan, perhaps going back to the age of fighting sail, and an occasional blurb from Tsun Tsu.⁴⁴ These quotes virtually scream to the reader “Hey! Look! Dead guys agree with us, so you should too!” We didn’t want to be left out of *that* action, so we came up with some quotes of our own. Our quotes borrowed heavily from the annals of the ancient and noble Greeks and Romans, who have a lot to tell us about warfare.⁴⁵ As it turned out, we ran out of chapters to write before we ran out of dead guys to quote, so here are few of the quotes we wanted to use, but were unable to due to the constraints of what is called “technical editing:”

*They sailed along the coast, landed at a number of places where they accomplished nothing of importance.*⁴⁶

Polybius, *The First Punic War*

What in the ‘Wide, Wide World of Sports’ is going on here?!?

Taggart, *Blazing Saddles*

Just because it’s a bad idea doesn’t mean it won’t work!

Barney Fife, *The Andy Griffith Show*⁴⁷

You gotta want that cowbell!

Christopher Walken, *Saturday Night Live*

⁴³ Just to prove our point, we added a typical dead guy quote to the beginning of Chapters 3 and 4. See how classy they make those chapters look compared to Chapter 1, which has no such quote?

⁴⁴ Not to be confused with Tsing Tsao, which is a brand of beer, or Shi Tzu, which is a type of small, fluffy dog. Neither of these names are necessarily associated with Naval or Joint doctrine.

⁴⁵ Think about it. These are guys who conquered the known world without ever having to make one single PowerPoint slide explaining the plan to their hoplite phalanxes or legions!

⁴⁶ This is, apparently, one of the earliest excerpts from an End of Cruise brief yet discovered.

⁴⁷ Barney Fife is a TV character, so technically, he had to be excluded from the official list of Dead Guy Quotes that are deemed acceptable by NWDC. Since *TACRON-101* is an unofficial document, we have no such compunction.

CHAPTER 3

R2P2, PowerPoint & You

You had some basic amphibiousness training when you reported to your TACRON, probably during the standard classes at EWTGLANT/PAC. During that training, you were probably exposed to the USMC six step planning process, and the 2-minute drill variant called the rapid response planning process (R2P2). You won't really begin to understand how important R2P2 is, however, until you become integrated into your ESG/MEU battlestaff and start planning some mock missions together.

3.1 LONG DAY'S JOURNEY INTO NIGHT

R2P2 training is a very intense kind of thing, as you'll soon see. Expect some very long days, whether you do it at the schoolhouse in Coronado/Little Creek, or you do it at Camp Foster in Okinawa as part of the FDNF det. It is typical, very typical to start at 0800 and be finishing up with the last slides of a 210 slide conops brief at 2330 that night. Helpful hint: if you have a bit of a drive involved, consider getting a BOQ room nearby for the duration of the training.

3.2 TELLING YOUR STORY AT THE CONOPS BRIEF

The goal you're driving towards as you engage in planning is a well-coordinated plan from the air C2 perspective. Although the confirmation/conops⁴⁸ brief falls toward the end of the R2P2 process, it's good to keep this goal in mind, so we'll talk about it first. The ACE will brief a lot of air details in their slides, but it falls to TACRON to knit everything together into a cogent plan when it comes to air command & control in an amphibious environment.

You'll tell the world what your plan is

TACRON Confirmation Brief Topics

- External air support
 - C/JFACC, CSG, MPA
- Status of aircraft diplomatic clearance and overall coordination with ACA
- **Airspace considerations**
 - **HIDACZ/AOA boundaries & altitude**
 - **Entry & exit points (ATC)**
 - Holding/control/initial points
 - Other airspace control areas
 - Other significant airspace control measures
 - **Standoff ranges, no fly areas and Hot Dog considerations**
 - Helo lanes
 - Tanker tracks
 - CAP & SUCAP stations
- **RTF procedures**
- **IFF/Comms**
 - Connectivity diagram
- **SAR**
- **Divert Fields**
- **Ready Decks**
- DATF Procedures

Items in **bold** are considered mandatory briefing items. Brief other items as required.

⁴⁸ "concept of operations"

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through several vehicles:

- Your confirmation/conops brief. The table at the right contains some important components of any good TACRON conops brief.
- SPINS. You may have to define special instructions both to ACE participants and external players. That's what the SPINS are meant to do! It's always good to make sure your special players know what's going on, so contact them directly before the mission too.
- ACO. If you (and the ACE) design special airspace, you'll need to get that vetted with the J/CFACC's ACA. That means lots of detailed coordination with your NALE.

3.3 RESPONSIBILITY AND CREDIBILITY

You will still be responsible for the airspace around the ATF/ESG, regardless of how razzle-dazzle the ACE plan is in the objective area. You will still be responsible for coordinating with the warfare commanders so that they can continue to work their missions. If there is a threat component, you'll need to weave a DATF plan into the overall conops. You'll still have to keep that P/M/C running throughout the process. And, if it's an exercise, you'll have to devise a plan for DV and media movement.

Oh, and here's an important point: until you establish your credibility within the ARG/MEU team, none of the key players in the ACE or MEU staff are likely to seek you out! This is a huge problem during those first sessions at a typical ARG/MEU R2P2 workshop. You need to show up well-prepared. You need to know your job and what products you are responsible for. You can't just show up on day one and expect to be spoon fed. If you have a rough idea of the kind of things you'll need to be doing, insinuate yourself into the various planning groups, ask questions and introduce yourself around, though, you'll do fine. Before you know it, people will be seeking you out because you're recognized as an important SME.

3.4 PREPARING FOR R2P2

This R2P2 stuff is pretty tricky business, and a TACRON Det OIC has to do some careful preparation if he expects to be successful. The NTTP has a section that describes the Marine Corps Planning Process, which is good preparatory material for the Expeditionary Warfare Staff Planning course offered by EWTGPAC/LANT. This course is an absolute must.

What to bring

The next step is to make sure that you have people who are comfortable using a PC to do planning things. You need a good PowerPoint stooge, and equally as important, you need somebody who can use Falcolnview/PFPS to display and design airspace, and transfer the product to PowerPoint. All of this, of course, implies that your det has people trained in Falcolnview, that you have a PC loaded with Falcolnview/PFPS (and all the pertinent map data), and that said equipment is handy for you to use during the R2P2 workshop. And it's always a good idea to have paper charts and FLIP publications handy. You'd be surprised how often a det has none of that ready on day one!

How do I prepare?

- See what the NTTP has to say on the Six Step Planning Process
- Brush up on your PowerPoint and PFPS/Falcolnview skills
- Find out where the scenarios will take place. Get the appropriate charts & FLIP pubs.
- Review your class materials from your Expeditionary Warfare Staff Planning (EWSP) course

Who to bring

Don't just leave this to the OIC. Ideally, all TACRON officers should attend the R2P2 Staff Training, painful though that may be. At a minimum, you need an OIC plus two planning assistants. It's not uncommon for an ESG/MEU to be planning multiple contingencies simultaneously, so the det needs to be able to provide more than one capable planner.

Your best airspace experts are, of course, your AC's. Too few TACRON dets take an AC or OS to the R2P2 Staff Training,

TACC Mission Analysis

- **Specified tasks.** Things mentioned specifically in the WO. Look for air & air C2-specific items.
- **Implied tasks.** Tasks not specifically laid out in the WO, but things you know you have to do in order to succeed. From a TACC standpoint, for example, DATF may be an implied task.
- **Constraints/Restrictions.** Things you either must or must not do. WO lays these out.
- **Requests for Information (RFI).** If there are things you want to find out from HHQ (like, will E-2C or KC-10 support be available), that would be an RFI you could add to the list.
- **Cross deck requirements.** The CAT will determine which key planners need to be brought over from other ships in the ESG. This list becomes an immediate action item for TACC since helo movement will be the most likely method.

probably out of a humane desire to spare them from the unremitting relentless pain that is inevitable in a workshop of this type. That concern is misplaced! By all means, bring a couple along. They can help with airspace research and chart preparation.

3.5 WALKING THE R2P2 DOG

There are several key steps in the process that involve TACRON in particular. The remainder of this chapter

won't go through the whole process (you have the NTTP, MCWP 5-1 and the ESWP course for that), but we'll hit some important highlights for you.

The Ops Intel Brief

It's not a formal part of the R2P2 process, but it definitely is a scene-setter. If your daily Ops Intel slides describe the day's ATO, depicts the airspace, describes big-ticket air events and availability of USN air assets, you've set the stage for planning if you receive a warning order during the course of the day.

CAT, Mission Analysis and Initial Staff Orientation

When the ESG gets a warning order, the 1MC will direct the CAT (Crisis Action Team) to assemble. **The TACRON OIC should be a member of the CAT.** Check your CPR/MEU SOP's early in your workup cycle. If you aren't included, ask why. You should be.

Copies of the warning order (WO) will be passed around and the CAT will start poring over the message to begin the R2P2 process. Weather, intel and ships positions will be briefed, and then the CAT will examine higher headquarter (HHQ) mission and intent.

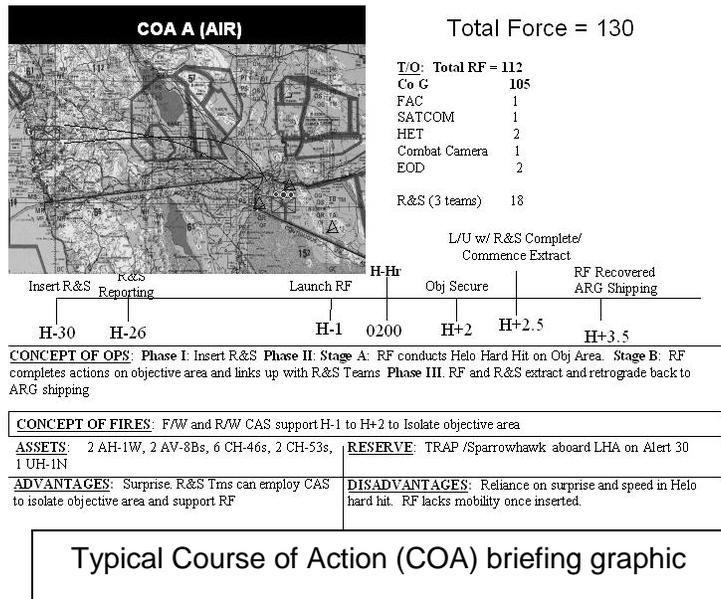
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The team will then determine specified and implied tasks, constraints, restraints and assumptions. The CAT and the remainder of the battle staff will merge for initial staff orientation. Parts of the CAT process will be repeated/reviewed for the benefit of the entire staff.

You'll have some specific inputs to make during this process (see box). At the end of the initial staff orientation phase, CATF/CLF provide some commanders' guidance and direct that courses of action (COAs) be developed.

COA Development

You will probably be called to assist in developing COAs, especially if air is involved. The supported commander (either CATF or CLF) will give some detailed guidance to the battle staff, and the staff will break down into mission planning cells. These cells will develop a number of COAs which will include forces involved, description of movements and actions on the objective, and a rough timeline. There isn't a huge amount of detail yet, but each COA provides a thumbnail sketch of how the mission will be accomplished. Each COA developed should be distinct enough from the other COAs to provide a true variety of options. Once the COA graphics and narrations are ready, the combined battle staff will reassemble for COA analysis.



COA Presentation, Comparison and Analysis.



Course of Action analysis is an important ingredient of the six-step staff planning process. Give the competing COA's some serious thought and develop estimates of supportability from a TACC perspective.

Each of the several COAs will be presented to the battle staff. As you hear each brief, you'll develop a sense of which COA appeals most to you. Concluding the COA presentations, the staff will make a ritualized COA comparison/analysis. Each major player will be asked to rank the COAs in terms of mission supportability. You'll give a numerical rank (1 is best) for each COA in terms of supportability, and the results will be tabulated. After all the votes are in (hanging chads are discounted), the COA with the lowest score will be presented to CATF/CLF as the battle staff's recommendation. The bosses will be free, of course, to choose whichever COA they damn well please, but at least the staff has given a recommendation.

It *sounds* easy enough. There will be distinct advantages and disadvantages to each COA, and various staff players will have strong opinions as to which COA they prefer and why. The problem is this: "liking" and "estimates of

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supportability” are two different things. And, *from an air command and control supportability standpoint, many COAs are often indistinguishable one from another.*

When you pick a COA, you do it in terms of supportability. Ask yourself this: *Of the three COAs presented, which one is most supportable from my perspective as a TACC officer? Which COA is my TACC best able to support?*

Do you see how those questions work? It limits your lane to your area of expertise. Now you can certainly rate each COA in terms of weather impacts, since weather impacts aviation. The ACE will be rating the COA in those terms. But you may be the only guy rating the COA in terms of overall air C2. Avoid the temptation to prognosticate in areas that truly aren't your concern. Saying something like “TACRON doesn't like COA 3 because we don't think there are enough 81mm mortars in the objective to provide security,” for example, isn't staying in your lane!

COA analysis is one of the hardest things for a TACRON guy to do well because the distinction between the choices is often indistinct!

TACRON COA Analysis Points to Ponder

- ATC deconfliction
 - Within ATF/ESG
 - ICAO & local agencies
- Radar coverage sea/air
- General air command & control
 - Is TACC capable of controlling the air picture in the proposed COA?
- Supporting fires—air perspective
- Ability of external air assets to support (VP, CAS, HSL, EW, ISR, AMC)
 - Impact on COA if they can't
- Impact on flight ops
 - Deck cycle
 - Fixed wing & helo launch/spotting conflicts
 - Fly day length
 - Flt ops vs. well deck ops (especially for LSD)
- Ability to set DATF
 - Insufficient air assets “left over”
 - Ships too spread out to provide mutual support?
- General ORM considerations

This is one of the most difficult aspects of R2P2 from a TACRON perspective. Often the COA's will be indistinguishable in their merits as far as we're concerned. Stay in your lane: Air C2.

At the end of the COA comparison phase, the supported commander will choose a specific COA for full development into a concept of operations. After some additional guidance, detailed planning will begin.

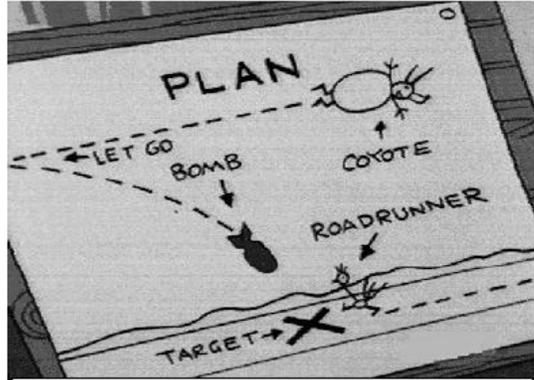
Detailed Planning

Here's where you really do your TACRON thing. You're working closely with the ACE, ships and warfare commanders to ensure that all air C2 mission aspects are smoothly meshed together. You'll be doing detailed airspace design, working with the C/JFACC ACA to ensure any airspace requests generated by the mission are included in the ACO/SPINS and ATO, time permitting.

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If you're doing a true 6-hour warning order to launch timeline, all of this coordination has to be done on the fly. There won't be time to get stuff published in a formal document like the ATO & SPINS, but you'll still have to coordinate with the same agencies real-time. ATO alert lines will have to be activated, existing missions re-rolled, airspace coordinated and appropriate ACU's notified...all this has to be done before the missions launch. Lots of work.

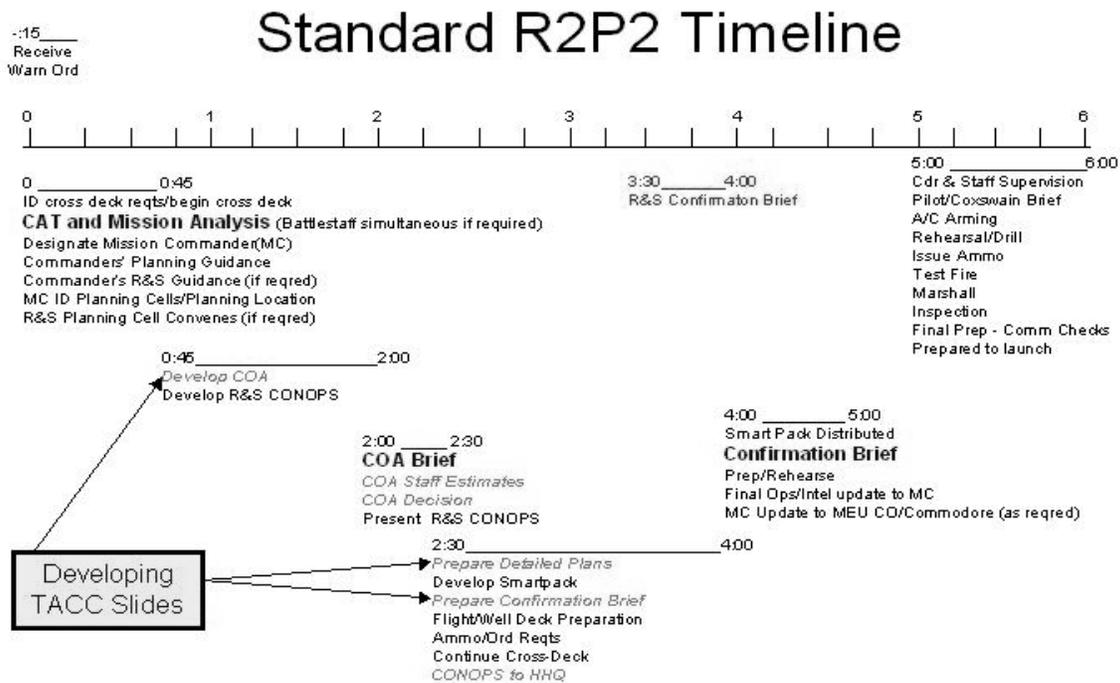
When all the work is done, your slides will be part of the confirmation/conops brief. The brief should include the items discussed at the beginning of the chapter.



Plans painstakingly developed during the Orders Development phase will be thoroughly briefed during the Transition phase.

Transition phase and orders development

The time following the conclusion of the conops brief should be a busy one. There is still plenty of work to do. *All those slides need to be translated into orders to be given to the actual guys executing the mission!* So while all those “actions on the objective,” “tables of equipment” and “missing Marine action plans” are being briefed to young infantrymen on the focs'cle, the ESG staff is busy translating their details on the sea echelon areas and ship-to-shore movement into the OPTASK AMPHIB.



This typical R2P2 timeline helps to put the whole concept in context...and it shows you when some of the key TACC interactions occur.

The whole goal of the Transition step is to ensure a successful shift from planning to execution. This is the time when we will be giving those briefs we prepared in the last step, answering (and asking) last minute questions and conducting various forms of coordination with just about everyone. During the earlier stages of the process, the actual members of the CAT and Battle Staff have been doing most of

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the work. The TACC reps to this process have been the “man with the plan;” they did the work, conducted the liaison, prepared the confirmation/conops brief, and sketched out the orders. Although by this point they’re thoroughly familiar with the mission’s details, they probably won’t be the ones who will be executing the mission. Now it’s time for that baton pass from the planners to the executors: the TACC watch team. Sometimes the transition phase will be very short, and the TACC watch team on duty for Step 1 of the process (Mission Analysis), will still be on duty when the actual execution takes place. Other missions may see a longer transition phase that will involve more than one TACC shift. You can see where we’re going with this: PASSDOWN! The plan has to be very well articulated for our TACC watchstanders. The TWO and TACC Supe in particular have to have a very good idea of what’s going on. It’s their job to make sure every controller, status board keeper, *everybody*,⁴⁹ understands the mission and their place in it.

3.6 MEANWHILE, BACK IN TACC....

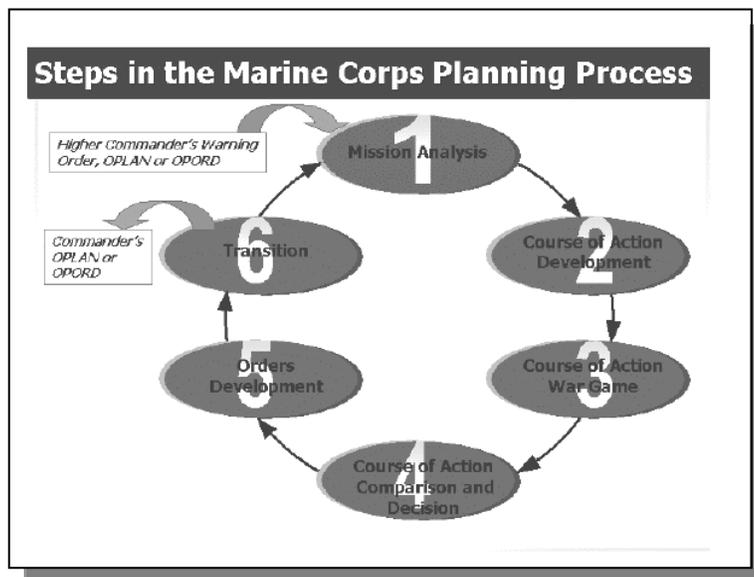
As we’ve mentioned, the first TACC action will be to alter the existing day’s ATO execution and P/M/C plan in order to bring all key staff planners to the flagship.

While you are busy determining courses of action, estimating supportability and the like, the watch in TACC will be focusing on other key parts of the plan...as long as you keep communicating with them and letting them know what the plan is.

If you tell the battle staff that you can get a P-3 to do ISR, an E-2 for AEW & link, and Hornets for CAS, then you jolly-well have to follow up on those lofty promises! As soon as the words leave your mouth in that initial staff orientation, a swift runner should relay the news to TACC so they can start making inquiries of the joint/combined AOC, the CSG, etc.

If you say, “we’ll coordinate the airspace, set up a HIDACZ, handle aircraft diplomatic clearances, etc.,” then you better make sure TACC springs into action even as the words are leaving your mouth. If not, those same words will doubtless return to bite the original speaker in his *podex*.⁵⁰

If some of these worthy ideas fail to materialize, be sure to update all concerned at later stages of the planning process.

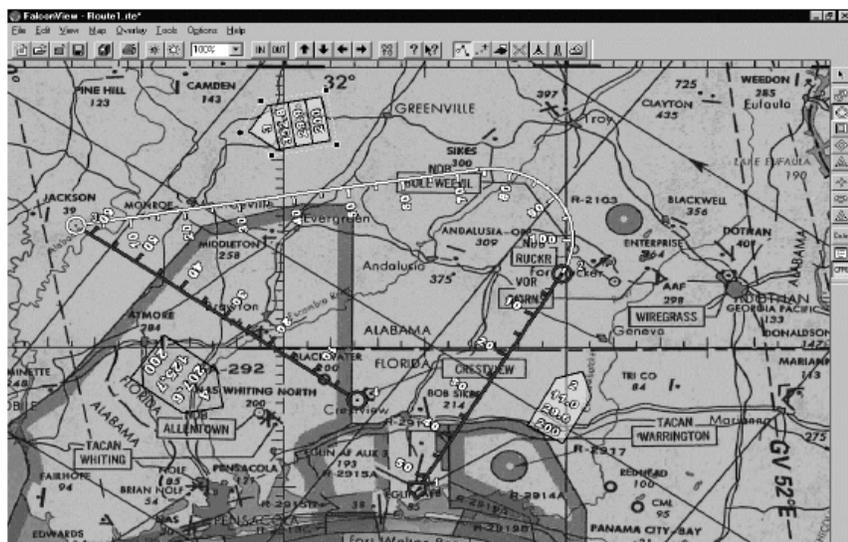


⁴⁹ Seastory time: All the “important” players in TACC (the TWO, TACC Supe, and AC/OSs manning the scopes were ready to go for the big mission...everyone that is, except the guy answering the phone, who had been at chow when the TACC in-house brief went down. And guess who was the primary POC, the first guy that everyone talked to who called during the Transition phase, and who gave each and every caller the profound impression that the entire space was clueless? That’s right! It wasn’t a big confidence-builder for our external customers. The story’s moral: make sure everybody (as in everybody) understands the mission.

⁵⁰ *Podex* is Latin for “hind end”

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During the orders development and transition phases, we have to turn our conops slides into actionable items as well. For us, it's a matter of writing the ATO, or making changes to the existing ATO, getting airspace approved, ACMs in place, and conducting final coordination with all pertinent agencies (CSG, CAOC, ACA, NALE, USDAO, ICAO /FAA organizations...). We also have to make sure that the proper people within the ATF/ESG lifelines are briefed. We need to brief HDC/AATCC, the Air Bosses (plural, don't forget the other ships!), and (very important) the AIRCREW. If this is happening at a leisurely deliberate planning pace, you have time to put polished products together. If it's happening on a true 6-hour R2P2 timeline, you need to really get your *podex* in gear!



A typical PFPS display. The "Falcon View" module of the Portable Flight Planning System can be used to design ACMs. The results can then be transferred to a PowerPoint briefing slide, and the data can be sent via LAN or "sneaker net" to ACE mission planners for individual aircrew use. Conversely, ACE helicopter routes can be imported to the TACC planner's PFPS display

And... don't forget to brief your own TACC watch! Your planners have been running frantically to & fro, coordinating this mountain of details. Make sure your Watch Officer, TACC Supe, AICs, Greencrown Controllers and TACC controllers all know the plan. Time permitting, don't just brief them on the air control aspects. Put the whole operation in context... your people deserve it. When the TACRON det on USS BOXER controlled the assault helo waves launching to effect the rescue of POW Pvt. Jessica Simpson during OIF, the watchstanders knew *exactly* what they were doing...and why!

3.7 ABOUT THOSE SLIDES...

You'll prepare a few slides for the conops brief. These slides, if done properly, will be very useful tools when you brief the ACE, TACC, the CSG and other key external players. Things you should include in your brief:

- External support sorties and sorties dedicated to warfare commander support. Specify air control unit (ACU) in each case. Default ACU should be Icepack, but make it clear who's controlling each asset.
- Airspace graphic showing the ACMs in effect, location of ships, objective, helo routes, AAR tracks, HIDACZ, etc.
- Detailed airspace deconfliction scheme. If UAV's are involved, emphasize how they'll be deconflicted.
- Comms flow sequence. Are the aircraft checking in with HDC, or are they switching directly up with Icepack?
- Mode IV procedures in/outbound, with particular emphasis on RTF procedures.
- Special notes on SAR, CSAR, DATF and EMCON as required
- Refer back to that "TACC Confirmation Brief Topics" box for a further breakdown.

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Once you've made your slides, you're ready to go, right? Nope, not quite! Have you *coordinated* those slides with all the key players on the battle staff? If the first time anyone else sees your slides is during the conops brief, then you're headed for trouble. Likewise, if the ACE and MEU Air Officer have come up with grandiose plans and haven't troubled themselves to bring TACC into the discussion, watch out! You absolutely, positively have to coordinate this stuff. It takes work, but that's why they call it *deliberate* planning.

Now that they're fully coordinated and understood, your slides will be pasted into the overall conops brief. This may be a set of 200 slides overall! When you do this, take heed of the following:

- Make sure your slides are in the proper order you want them
- Make sure your slides are inserted in the proper portion of the brief. If you're the tenth briefer, make sure your slides come right after the ninth briefer's slides. Some MEUs have dedicated placeholder slides, which make it easy to find your slot, but just be careful.
- Print out a copy for you and your closest friends. Use that hard copy to make notes on during the confirmation brief, and you'll have a good package to give to the TACC watch for execution later on.
- Preflight your slides to guard against format corruption. Like fine wines, slides don't travel well. When you insert your beautifully detailed, carefully prepared slides into another computer's existing brief, all sorts of ugly things can happen to them. Check them and repair as required.
- Don't wait until the last minute to add your slides to the "big brief." There's always a stampede at the last minute. Turn your slides in, check to see that the fonts and colors still look good, then go get a snack in the wardroom.
- Bring backup slides on a memory stick, just in case something goes horribly wrong.

During the actual brief, pay attention to the progression of slides and briefers. Don't be caught napping when your slides come up! Know your slides well enough that you don't have to read them to the audience word for word, and use a laser pointer to highlight key portions of the slide. Also...know what the hell you're talking about so you can credibly answer questions from the floor!

3.8 WHAT ARE THE TAKE-AWAYS?

It's a difficult process to learn, but once you've got your arms around the basics, R2P2 is a very powerful and effective tool.

One of the biggest mistakes TACRON guys make is not understanding how important R2P2 training is going to be to them when they det up. At a very minimum, all E-6 and above ought to get the EWSP schoolhouse course, and every det watch officer should go to the R2P2 workshop along with the ESG and MEU staff.

Assuming that a motivated TACRON det has trained its people in the prerequisites and has scheduled the right number of det personnel to participate in the R2P2 workshop, the next shortfall usually comes in the area of material preparation. You need to bring the right tools, like charts, FLIP pubs and perhaps your own dedicated mission planning computer. Make sure that computer is loaded with PFPS/Falconview too!

Bring sufficient depth on the bench. The more people you have trained in this stuff, the better.

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Finally, you need to know what you're doing. Being grounded in doctrine and the capabilities of U.S. Navy ships and aircraft is a must! The MEU staff is huge and incredibly well-trained. When you hear them get up and talk, it seems like there's nothing they don't know about expeditionary operations, and how could you, mere TACRON worm, contribute anything of value to their wealth of expertise? Well, as it turns out, they often don't know quite as much about Naval operations as your (or they) might think they do. It's not uncommon for the ACE to plan a long-range helicopter mission deep into hostile territory and never once consider that airborne early warning, radar flight following, radio relay and data link reporting from an E-2C might be of some use to them! That's where *you* come in!

Common TACRON mistakes during R2P2 training

- **Failure to train in the prerequisites.** That EWSP course is a very important building block. Make sure you have several graduates prior to R2P2 with the staffs.
- **Blowing it off.** Believe it or not, this is far too common in our community! If you have a rookie det with a high-turnover ESG staff, you may not realize this is a big-ticket item until it's too late and you have too many key players scattered to the four winds going to other schools.
- **Not bringing the right tools to the fight**
 - You need a computer that you can use to produce briefing slides. You don't want to have to wait until it's your turn to use a "timeshare" computer.
 - PFPS/Falconview. You really need to be able to generate airspace graphics quickly. To do that, you need a computer loaded with the software *and* the proper NIMA chart databases. Having a guy that knows how to work the software helps too!
 - You need the right paper products as well. Hard copy charts, FLIP pubs and approach plates help you to design your airspace effectively. You may not want to have your HIDACZ co-exist with a host nation TCA!
- **Not bringing the right people or enough people** to the training. This is painful and sometimes tedious training. Very painful and very tedious. But you want to have more than just one guy capable of doing R2P2, so suck it up!
- **Not including our enlisted people.** It would be good to have some of your senior AC's involved in the process. They don't have to be there for the whole bloody week, but to have one enlisted airspace expert for each practical exercise could be very useful for assisting in airspace planning.
- **Not knowing doctrine.** You need to understand the TACRON mission, especially in this venue! It's usually the first time you're getting together as an integrated staff. Make a good impression by knowing what the hell you're talking about!
- **Not being aggressive enough.** Even though the MEU are impressive experts in their specialties, they often have very little knowledge of Navy capabilities, especially CVW aircraft. If you're well-prepared, you'll have the self confidence to engage your counterparts with information they need...whether they know they need it or not!!

3.9 R2P2: ONE TACRON DET'S STORY (PHOTO ESSAY)

Ohhh, man! Not another one of those @*#&# CAT teams!



I really like COA B.

Don't worry, Goose. ...I've got this one!

Nothing comes first but this brief!!



...so get you're @\$\$ on Powerpoint and Falconview and make my slides!

Yes, but does it fully support the landing plan?



We're going with COA A.

Pass me a towel. I have TACC watch in five minutes.



You're up next Mav.



I hope my slides show up ok...

With thanks to TopgunTheMovie.com

The Romans are certain of victory...because their exercises are battles without bloodshed, and their battles bloody exercises.

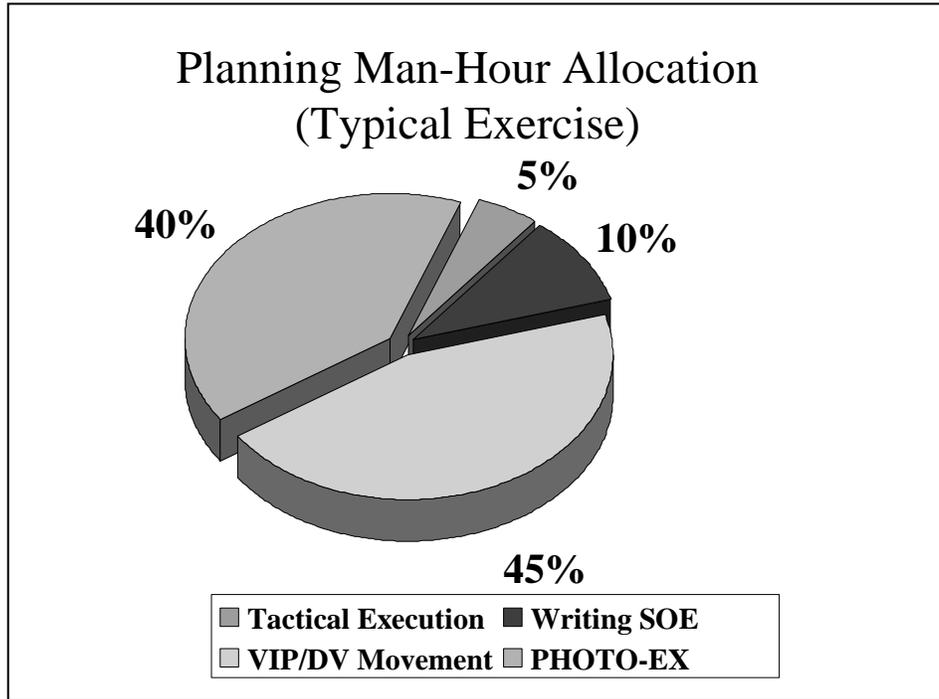
---Flavius Josephus, *The Jewish War*

CHAPTER 4

Major Exercise or Major War?

“There’s more to TACRON than meets the ARG.” That old TACRON saying⁵¹ means that people serving in the community can expect to do more than just the workups & deployment drills associated with a normal ESG/MEU deployment. Part of your skill set needs to include the ability to plan for something larger than then next MEU tactical offload. When we talk about a major exercise, like a RIMPAC or Ulchi Focus Lens,⁵² we’re talking about some major muscle movements where there’s more than just an ESG/MEU involved. There can be a full-blown ATF, one or more Carrier Strike Groups, allied amphibious task groups (ATG’s), joint/combined air, Army units...the list goes on and on. Planning for something like this is far more complex than just coming up with a good SOE.⁵³

During your time in the TACRON community, you’ll probably plan and play in at least one major exercise. It may be the ATF/ESG graduation exercise (often called “JTFEX” or something similar). Often, a deployed ESG will participate in a major regional exercise like COBRA GOLD, TALISMAN SABRE, URGENT TWINKIE or INFINITE ROADKILL. It may be a local (but large) exercise like KERNEL BLITZ, COLONEL KLINK or MAJOR



DISAPPOINTMENT. Exercises of this kind are typically scheduled years in advance. Planning for exercises like these are done in relatively organized and predictable pieces, using an Initial Planning Conference (IPC), Mid Planning Conference (MPC), Final Planning Conference (FPC), and Pre-Sail Conference. Using the time-honored “crawl-walk-stagger-run-panic-stampede” approach, nearly all the meaningful planning is done sometime between the Pre-Sail Conference and the Hot Washup.⁵⁴ (The reader is once again directed to the chapter on R2P2...these skills will come in handy at the last minute!)

⁵¹ Actually, the author just made it up as he was typing the beginning of this chapter.

⁵² Normally just abbreviated as “UFL.”

⁵³ Schedule of Events

⁵⁴ The Hot Washup is the meeting held immediately after the exercise concludes. The high point of the Hot Washup is when the senior ranking officer declares that he’s never seen a better exercise (regardless of the actual outcome).

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4.1 PLANNING FOR AN EXERCISE AND/OR THE REAL THING

Interestingly enough, the issues to be resolved and tasks to be accomplished for TACRON participation in a major exercise is almost exactly the same kind of work required to plan a major theater war! That means the skill set (and believe us, it’s an acquired skill set, not a natural one) needed to plan a big exercise is pretty much the same skill set required for doing something big like real war.⁵⁵ In fact, let’s compare the laundry list for a major exercise like UFL or Talisman Saber and a major theater war like, say...OIF:

Planning Consideration	Exercise	War
Determine the air and naval order of battle, and how the ATF/ESG fit in.	x	x
Ascertain the size & scale of the MAGTF and associated amphibious shipping.	x	x
Design afloat tactical air control organization. Assign multiple TACRON detts to the ATF. Determine which det will be the “Super TACC” afloat.	x	x
Introduce/reintroduce the Navy TACC to organizations (CSG staffs, others) who we introduced ourselves to only last year but in the meantime have determined that we really weren’t relevant to begin with, but will find out that we really are once they begin to comprehend the complexity of amphibious operations.	x	x
Determine what air C2 architecture the Marines will be using, and how it will tie in with Navy TACC afloat.	x	x
Do deliberate planning with the MAGTF and understand how air supports the MAGTF scheme of maneuver. Participate in many Operational Planning Teams (OPTs).	x	x
Design amphibious airspace concurrent with MAGTF airspace design and ATF sea echelon area design. Ensure airspace is acceptable to Naval Component Commander. Socialize heavily with Air Component Commander. Submit coordinated ATF/MAGTF set of ACMREQs to the Air Component Commander’s ACA.	x	x
Coordinate with FAA, ICAO and/or other local air traffic control agencies to deconflict military traffic with commercial/civilian operations.	x	x
Identify concerns (ecological & otherwise) that would be considered “show stoppers” to Host Nation or local populace from an air standpoint.	x	x
Determine number of LNO’s to send to Marine TACC ashore, J/CFACC AOC, and other locations (FADIZ cruiser, CSG hostage, etc.) Determine number of personnel to deploy as MMT’s or to otherwise support airbase ops in theater. Work out how to get them there and what special equipment they’ll need when they arrive.	x	x
Work Reserve Component integration into the plan from the git-go.	x	x
Work out all the command relationship issues which will affect our air C2 mission.	x	x
Develop set of SPINS, ACO, ACP inputs. Write OPTASK AIR ATF/ESG, OPTASK SAR, etc. Hash out some livable Defense of the ATF (DATF) agreement with MAGTF.	x	x
Attend lots of planning conferences, taking careful notes and always ready to spout doctrine and the TACRON/TACGRU party line.	x	x
Remind the ACE that the Navy really, truly is serious about operating transponders with <i>all</i> valid IFF codes functioning, and that trigger-happy people are only too ready to waste them if they forget...	x	x
Desperately figure out how you’re going to get TBMCS to work <i>this</i> time.	x	x
Determine modeling & simulation requirements. Are TACRON personnel going to run certain simulation/game nodes?	x	
Be prepared to declare this “The Best Exercise Ever” during the False Praise phase or at the hot washup.	x	

It’s obvious that there are many similarities between a major exercise and real-world combat operations. What are some of the keys to successful planning from a TACRON perspective?

⁵⁵ And it ain’t bad to know how to do this stuff for those little old ESG/MEU exercises either!

4.2 THE IMPORTANCE OF PROPER PLANNING

Identify the right exercise planners

Believe it or not, the best people to plan the exercise are the people who are actually going to *participate* in said exercise. Same thing goes for a real war, too. It sounds straight-forward, but there can be complications.

Take exercises in C7F for example. The TACRON det deployed as part of the FDNF⁵⁶ during most of the planning stages for UFL *will not be the det which will be in theater when the exercise actually goes down*. When the IPC, MPC and FPC are being held in Korea, the deployed det is usually underway, making it difficult for them to send a rep to the meetings, which is an additional complication.

A very natural solution would be to send a rep from the det which will be deployed during the exercise proper. There are greater TAD costs involved (compared to sending a rep from the det already in the AOR), but the results are well-worth the investment.

Ahh, but there can be another complication: more often than not, the future det may not have gotten very far into their training (if at all), so you run the risk of sending somebody clueless in even ESG air ops to do planning on behalf of a huge ATF's air execution plan!

The above example may sound extreme, but it UFL comes along every year. The best way to ensure competent planning takes place is to pair an experienced TACC veteran with the eventual participant rookie and send them both to at least one of the three planning conferences. Again, not a cheap proposition, but better than gooning up a high-visibility exercise.

Attend the Planning Conferences

Again, something as basic as “attending the planning conferences” would seem the natural thing to do. It's awfully easy to find something less painful to do much closer to home, though, so be forewarned. There's also the temptation to say “The Phibron and/or ESG staff is sending a rep; they'll cover everything for us.” You *may* get away with that for the IPC, but by the time the MPC rolls around, you better have your head in the game.

In addition to the formal planning conferences, it's common for the Marines to conduct operational planning teams (OPTs), the purpose of which is to plan their participation in the exercise to excruciating detail. Their preferred planning method, of course, revolves around the six step Marine Corps Planning Process described in an earlier chapter (minus, of course, the constraint of a six hour time limit).

Chances are that it will never occur to the Marines at the MEB or MEF staff level to invite you to their sessions, or to even let you know that such sessions are going to be held! At these OPTs they will very contentedly plan the entire war without you. They'll design a complete tactical air control scheme, complete with airspace which doesn't really synch up well with ATF or CSG airspace. If you're not a part of the process, you'll find yourself scrambling just prior to COMEX trying to reconcile their airspace and your airspace, fires, etc. The way you find out about these things is to network at the MPC

⁵⁶ Forward Deployed Naval Forces

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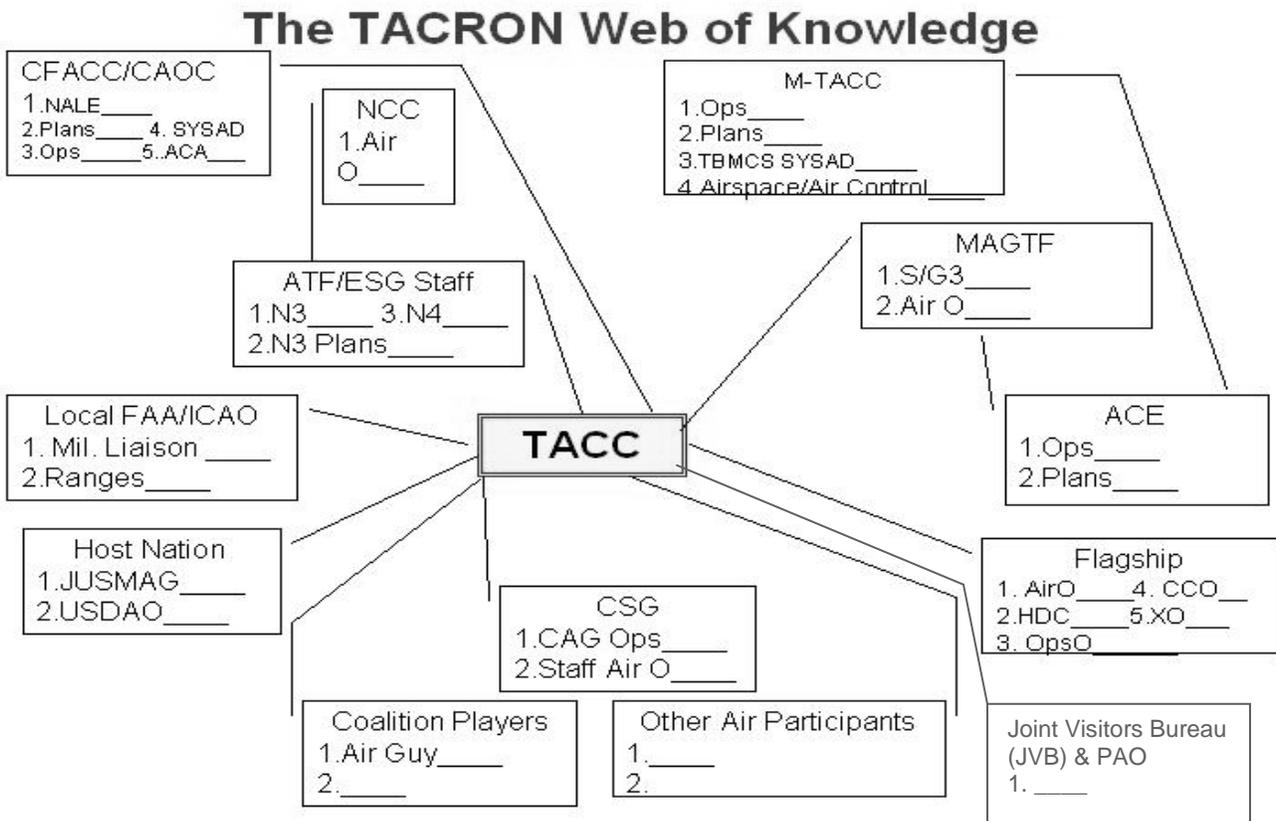
and FPC, and ask the MAGTF Air Officer very pointedly, “Hey, are you guys going to have any dedicated OPTs to work out your scheme of maneuver?” If so, count us in!”

4.3 WHAT TO DO AT THE PLANNING CONFERENCES

OK, so you’ve made your way to the planning conference to plan the exercise in which you yourself will eventually be participating as an exercise participant. Now what? You need to arrive armed with a shopping list of people to talk to, POC information to gather, and TACRON propaganda to spew in the direction of anyone who will listen. Oh, yes, and you’ll have to gather up some details about the conduct of the exercise itself! But first things first...

The TACRON Web of Knowledge

To assist you in meeting just the right people at your planning conferences, we have devised a little graphic we call “The TACRON Web of Knowledge”:⁵⁷



⁵⁷ Legend:

CFACC CAOC: Combined Air Operations Center. Where the C/JFACC is doing its business. Find the Naval Amphibious Liaison Element (NALE)—these guys are the absolute key to success. You’ll also want the plans & ops chiefs (or watch desks), the TBMCS System Administrator (SYSAD) and Airspace Control Authority (ACA). NCC: Naval Component Commander. Who is the numbered fleet commander, or the OCE.

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All this is, really, is a depiction of all the people you'll probably need to meet during the course of the conference. These are the people you need to find and from whom you should obtain POC information. Not all of these people are going to be at the conference, but chances are that those people that you can make contact with will know how to contact other folk on the list. If you know how to get ahold of most of these people as you approach the final planning stages of the exercise, your chances of success increase. The Appendices contain a larger, photocopy-friendly of the "Web," suitable for taking notes on at an IPC...

Get a Good List of POCs

If the conference puts out a detailed list of attendees, by all means get one! If not, collect as many business cards and POC info scribbled on napkins as you can. The first step is to get the "garrison" POC info for each of these players. You need to have their *deployed* (actual location during the exercise) info as well, though, or you web will fall apart quickly!

Hint: if your exercise is going to involve a lot of distinguished visitor (DV) and media action, make sure you know who the head PAO is and how the Joint Visitor's Bureau (JVB) will be set up.

Determine the level of support Homeguard is willing to offer

Is homeguard (defined here as your squadron and TACGRU) willing to throw many bodies at this exercise, or just a handful? Example: can everything be handled by the TACRON det, or will we need to:

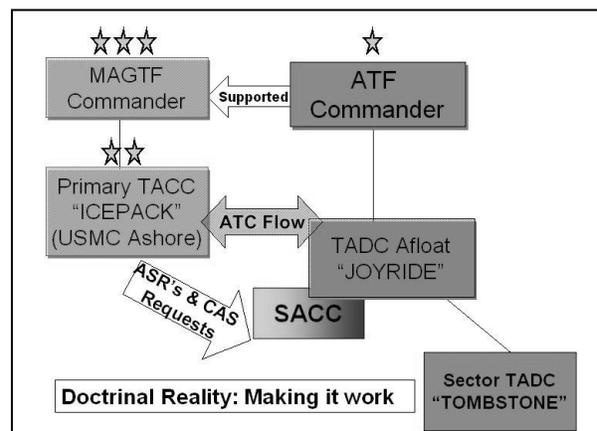
- Send LNO's (hostages) to the C/JFACC's AOC?
- Man up significant portions of the AOC beyond just the NALE?
- Have LNOs ashore at a host nation airbase or command post?
- Send reps to the CV?
- Augment a Marine TACC ashore?
- Run gaming & simulation cells?

The list can grow rapidly. How many people—and how much money—is homeguard willing to devote to this particular adventure?

Be ready to explain Navy TACC's mission and what we bring to the table

It's that old duo again: knowledge & doctrine! You have to possess a solid understanding of what TACRON is, what a TACC afloat does, and what the doctrine is that makes all this stuff work! You don't need to be a Jedi Master, but you should at least have read the NTTP, TACRON-101 and gotten a couple of basic courses under your belt. Having a solid understanding of joint air operations is a must as well.

If you don't have a solid idea of what the heck you're doing, talk to somebody before you're sent off, and take a detailed shopping list with you!



Could you explain this diagram to a key player at the MPC? If not, you need more preparation!

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Determine what TACC's deliverables are (and be prepared to deliver them!)

You may be asked to provide the following, either by the end of the conference or by some date specified by the conference out-brief:

- List of Navy tactical control agencies and their duties with respect to the exercise (TACC on your ship & who else besides..?)
- List of TACRON participants working outside of the ship's TACC (LNO's, etc.)
- Rough airspace design, coordinated with the Marines (with an agreement to further refine the plan later)
- Smooth airspace design, to include actual ACM's
- Inputs to the SPINS to facilitate tactical air control
- Friendly Order of Battle (FrOB) information on all ATF/ESG/ACE aircraft participating (for entry into AOC's TBMCS)
- A plan for moving PMC in general, and media/DV's in particular.
- Exercise-specific OPTASK AIR
- Acknowledgement of who from TACRON will be attending the next planning meeting

4.4 PLANNING CONFERENCE AFTERMATH: WHAT TO DO NEXT

There's more to this part of the process than just submitting your travel claim (but do be sure to include your phonecalls!). You need to submit a detailed after action report containing the gouge required to keep the planning process forward. Your trip/after action report should include:

- Basic description of the theme & scope of the exercise, including location & key countries/units participating
- Breakdown of ATF/ESG/MAGTF units participating
- Scope of anticipated TACRON participation
 - What key nodes will we be manning/controlling/running?
 - How many LNOs will we have and at what locations?
 - Add an airspace graphic from PFPS showing exercise location, especially if there are any tricky airspace planning considerations to be dealt with
 - Any special skillsets required? (example: "we need four TBMCS expert operators for the AOC and four MMT-qualified AC's for an expeditionary airfield.")
- Special administrative attention required? Do participants need:
 - Country Clearances?
 - Passports (not just orders)?
 - Shots?
 - Gas masks or other personal protective gear?
- Deliverables for which TACRON/TACGRU will be responsible? (See above lists)
- Timeline graphic showing key events like
 - Remaining planning conferences & OPTs
 - Due dates for deliverables (not just TACRON products per se. Are country clearance or security clearance messages required by a certain date? Include them too!)
 - Exercise COMEX/FINEX
 - Include additional details on key phases of the exercise if this is a FPC report.

You can see that this post-conference report might lend itself better to a PowerPoint brief than just a written trip report. That brings up a good point. You have to get the word out to your chain of command! They need to know what you've signed them up for, and what actions they need to take. Don't just rely on an e-mail that says "Skipper, it was a good conference and I found a great Mongolian BBQ joint in town! Trip report attached fyi." You've just signed them all up for a lot of hard work. You need to make sure that the squadron, and perhaps the TACGRU, *really get it*. If you're attending this conference on behalf of a Phibron or ESG staff, then of course you have to ensure that they get it too.

4.5 PLAN EARLY FOR SUCCESSFUL RESERVE INTEGRATION

If you are going to use reserve component TACRON people for the exercise, make sure they're involved in the process from the beginning. It might be difficult for them to actually attend the planning conferences, but you need to do a couple of key things:

- Identify what billets will be given to the Reserves.
- Play to the Reserves' strength (they're very strong in JFACCery), but make at-sea billets in TACC available to them as well.
- Back-brief them on the exercise. If they can come in to an Ops Intel meeting on a Reserve reschedule day, that's great. If not, somebody may have to brief them face-to-face on the next Drill Weekend.
- Have them identify the Reservists who will participate as early as possible! The more details you can give them at the beginning of the process, the sooner they can give you a fairly solid list of names.
- Getting Reserve orders always involves a lot of what can euphemistically be termed "human drama." They get paid out of a separate pot of money, but often the annual training time given them won't be sufficient to cover the duration of the exercise. That means they'll have to come up with a creative blend of AT, ADT, SDSW and possibly LSMFT monies to fully cover their TAD. All that takes time and more coordination than would be thought humanly necessary. The good news is that our Reserve guys are masters of this! You give them enough lead-time, and they can almost always do battle with their own mysterious & arcane system and get us exactly what we need!
- The same administrative rules apply to them when it comes to passports, shots, country clearances, etc.
- Keep them in the loop! As more exercise details become available, make sure they're kept up to date.

When you return from the MPC, don't do this:

Do not wander into the Operations office the Monday after you return, dump some papers on the desk and say, "Dude! I went to that mid planning conference or whatever? They were all "so what will TACRON do?" and I was like "whatever, dog" and they were all "whatever." The ship's gonna get three days liberty in port when it's over, so I'm like "whoa, we'll get some serious Admin action, dog!" So anyway, here are some handouts and stuff they had in the lobby. So like when's the squadron picnic start, dude?"



You thought the ATO sausage factory was ugly? You ain't seen nothin' until you've seen what our Reserve guys have to go through to get funding for a major exercise!

4.6 PREPARE YOUR DELIVERABLES

We've already listed a number of possible deliverables you'll need to consider when you're at the planning conferences. Now you have to make good on those promises! A lot of them can be handled in-house, but many of the exercise deliverables require considerable coordination with other participants or outside agencies. Their timelines and sense of urgency may not match your own. If the Marines, for example, are involved in planning and executing another exercise between now and when your mutual exercise is coming up, the chances are that you might have difficulty in locating people willing to concentrate on the later exercise when the imminent exercise is demanding all their attention.⁵⁸ Keep bugging them; stay persistent. You need to deliver your deliverables on time.

4.7 WHY LNO'S ARE IMPORTANT!

Here's a little secret: inside an AOC during a major exercise, nobody's going to give a rat's *podex* about amphibs, TACC or TACRON. Until, that is, something goes wrong. Then the heavens will come crashing down.

You need an advocate in the AOC. Your LNO will be your eyes, ear and *mouth*. If you need some particular airspace, you *could* just submit an ACMREQ and wait for the ACA to respond. And wait. And wait... Until one of your aircraft gets a flight violation. Then the ACA will suddenly know where your parents live. You can expedite the good and mitigate the bad by having your own mole on the scene. That mole is called the NALE⁵⁹ in this particular example.

Do not shortchange yourself on LNOs in places like the AOC, Marine TACC, CSG, and airbases ashore. You won't have enough people in a standard TACRON det to support all potential LNO requirements, but with homeguard and Reserve support, you *will*. If you plan, that is.

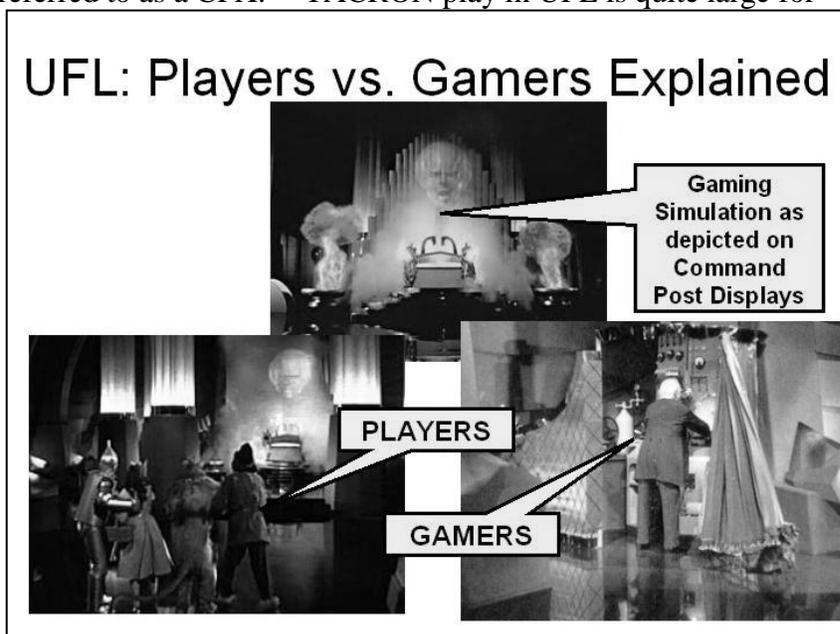
4.8 SUPPORTING AN EXERCISE THROUGH MODELING & SIMULATION

UFL is the most famous example of an exercise that uses modeling and simulation to accomplish its goals. This type of exercise is often referred to as a CPX.⁶⁰ TACRON play in UFL is quite large for this reason.

So...are you a Gamer or a Player?

A CPX involves two main types of participants. "Players" are personnel who are performing their actual military duties as watch standers, battle staffs and the like. If the simulation is really good, it's sometimes hard for them to even tell the whole war is fake.

"Gamers" are the people "behind the curtain" creating the situation that the players are seeing on their



⁵⁸ It's called "shooting the wolf closest to the sled."

⁵⁹ Naval & Amphibious Liaison Element

⁶⁰ Command Post Exercise

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operational displays in their command posts or battle watch floors. In some exercises, like UFL, TACRON people will act as both Players and Gamers.

Gamers come in three distinct flavors. The “Blue Cell” gamers are controlling friendly forces. Good guy ships, aircraft and ground units are moved in the game by the Blue Cell. The “Red Cell,” as you might expect, are the bad guys in the scenario who control enemy units in the wargame simulation.⁶¹ The final group is called the “White Cell.” They are the referees who control the overall pace of the exercise, ensuring that the Red and Blue Cells “keep it real.”



Fairy Dust is an important ingredient in any major gaming simulation. Without it, reality tends to intrude...

Massless Elephants & Frictionless Sandpaper

There are a lot of things in a simulation-heavy CPX which, at first glance, don't appear completely realistic. Don't worry...they aren't! Don't worry about too badly. These things happen in modeling & simulation. The exercise wouldn't be any fun without it.

As they say just prior to exercise commencement, “Don't fight the scenario; fight the enemy!”

Gaming & Simulation Support

There are several gaming systems typically used for gaming support. One you might be familiar with is the JEWL⁶²

trainer used over at EWTGPAC. The big gaming system the Navy uses in the Far East is called RESA.⁶³ TACRON personnel will man the RESA gaming cell for amphibious forces, while other gamers run the rest of the naval component. Since the TACRON RESA gamers are making ship-to-shore movement and CAS missions happen, many of their functions are quite similar to what a TACC afloat would do for the real thing. For this reason, the TACRON RESA Gamer cell may also be called upon to act out certain Player functions as well, acting as a TACC/TADC for fellow players.

The “Athena Effect” in Gaming

During a CPX with lots of simulation, it's not uncommon to see enemy units suddenly appear out of nowhere in great numbers. Some of these units might even be forces regenerated after being decisively killed just a few hours earlier! No fair, you say? That's what gamers call the “Athena Effect.” In ancient days, a sudden dramatic turn of fortunes on the battlefield was thought to be caused by the direct intervention of the gods. Don't be surprised if this happens. What gamers should be on guard for, however, are wildly unrealistic events. For example, if



The “Athena Effect” in action.

⁶¹ In the Far East CPX scenarios, they are referred to as “dot.commies”

⁶² Joint Expeditionary Warfare Lab. Its East Coast counterpart is called “JETT,” the Joint Expeditionary Team Trainer

⁶³ Research Evaluation and Simulation Analysis

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some Red Cell guy has a biplane fire an RPG that sinks an aircraft carrier, you probably need a reality check. That's when you call on the White Cell to do a reality check. If the White Cell determines that the attack result was, in fact, bogus, they will dump a load of fairy dust on the oil slick where the flattop went down, and she will miraculously reemerge from her watery grave, ready to deal death to the forces of the Red Cell once again! That's an example of when the Athena Effect works *for* you rather than *against* you.

Tips for successful gaming.

- Log everything! Keep an accurate record of each gaming action you take and are asked to take.
- Don't shortchange yourself on gamers. Better to have a slightly overmanned two-section watch than an undermanned three-section watch that can't cope with the workload.
- Don't lose track of any of your forces.
- Communicate, communicate! Push information to your Player counterpart. Make it so that they're sick of hearing from you.

The big take-aways...

- A successful exercise only happens with extensive preparation.
- The TACRON Det that plans the exercise should be the TACRON Det that executes the exercise.
- Don't send a stooge to the planning conferences. Your rep at the IPC, MPC & FPC needs to know what he's talking about!
- Get a good set of POCs at the conference. Use the TACRON Web of Knowledge™
- Back brief your chain of command. Make sure they know what checks you've written on their behalf.
- Determine the level of support homeguard is going to provide the exercise.
- Bring the Reserves into the process early and decisively.
- Make sure you update your POC list as your contacts move from their homeguard addresses to their deployed exercise addresses.
- Know what products and deliverables you'll need to provide before the exercise begins.
- Use as many LNO's as you need to be successful

There are two ways by which all men may reform themselves, either by learning from their own errors or from those of others; the former makes a more striking demonstration, the latter a less painful one.

Polybius, *The First Punic War*

CHAPTER 5

TACC and Life's Lessons Learned

This section of TACRON-101 is a hodge-podge of lessons learned the hard way, along with some tips for making life in TACC just a little easier.

5.1 REMEMBER OUR MISSION: TACTICAL AIR CONTROL!

Before people check into TACRONS for the first time, they often have no clue what they're getting into. Nobody joins the Navy to be a TACRON guy. It's easy to find yourself asking "What is our mission, exactly?" When you hear the answer, your next question might well be "And we're doing this, *why...?*"

We do so many different things in TACC, take on so many responsibilities, answer so many questions and seem to be involved in everything...it's easy to lose sight of our real mission at times.

Pure and simple, what we do is this: We control airplanes! We do it with radars and radios, of course, but our "moral authority," if you will, comes from those doctrinal bits of paper called OPTASKS, ATOs, SPINS...you get the idea.

5.2 TACC & FOOTBALL: SPORTS COMMENTATORS OR OFFENSIVE COORDINATORS?

It's important to be able to answer the chain of command and other well-wishers when they ask "What's the status of the execution checklist?" You need to keep an eye on the scopes, watch the link, listen to the mission frequencies, etc. That's definitely part of our job. Don't forget, though, that our title isn't "Tactical Air Reporting Center." We're supposed to be able to control things as well. Don't let your watch be merely passive observers. Have the tactical situational awareness and self confidence to be able to step in and make calls when warranted. Remember that old saying: "The world is made of three kinds of people...those who make things happen, those who watch things happen, and those who *wonder* what happened!"

5.3 ON THE PRIMACY OF THE ATO

The Air Tasking Order (ATO) is a USMTF-formatted message that details the air missions for a specific time period. Although the ATO concept is relatively well-understood by fixed-wing aviation, you are

Remember the ways we control aircraft!

Wearing our AREC Hat!

- OPTASKS
- ATO, ACO, SPINS

Wearing our ICEPACK Hat!

- Procedural Control
- Positive Control
- Advisory Control

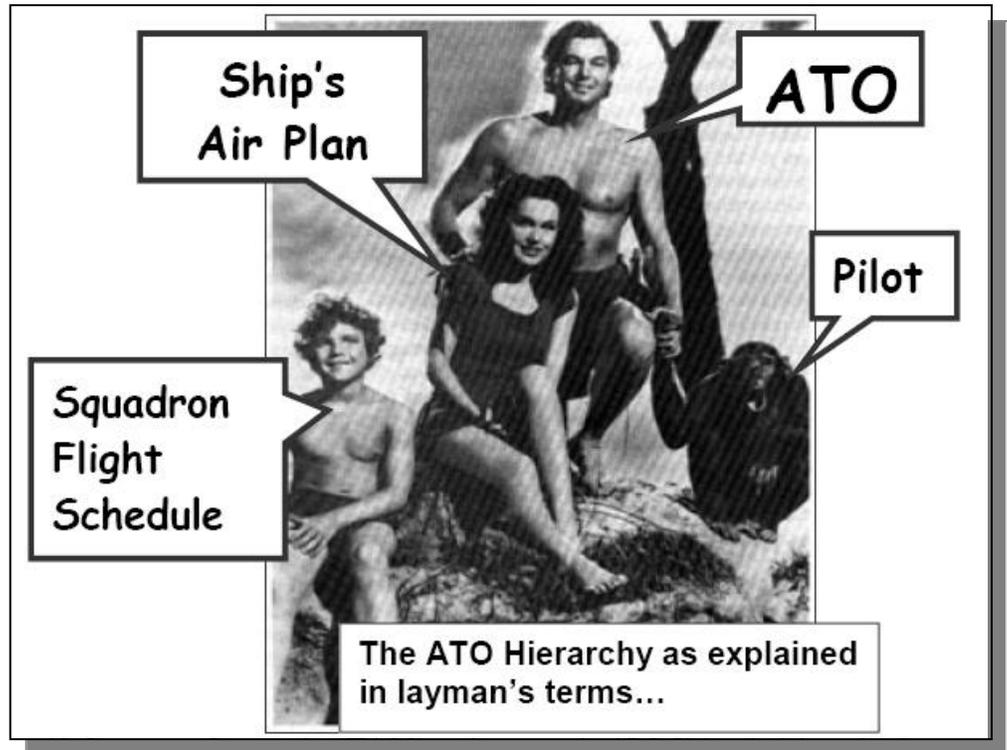
Both hats are important! If we fail to execute our mission wearing our first hat, we will be ineffective executing our mission when we wear our second hat!

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likely to have quite a few pilots in your ACE who haven't yet had much exposure to doing business this way. They are likely to believe that the squadron flight schedule is the be-all and end-all of aviation scheduling, and the ship's air plan is a handy supplement for getting a feel for the overall flow of shipboard flight ops, along with the occasional cartoon. One of your challenges as TACC is to educate them in the way things really are: the ATO is the master plan for ESG/MEU aviation.

The ATO reflects the intent of ESG Commander and CLF in using air power to support their scheme of maneuver. From this master document, the flagship will develop the air plan, and the ACE will develop their flight schedule. (This subtle relationship is further explained in the accompanying illustration.) If

the TACC, ACE, MEU Air Officer, PHIBRON N3, AATCC Officer and Air Department are working in harmony and collegiality, all three documents can be developed more or less simultaneously. Emerging changes during the planning phase must first and foremost be reflected on the ATO. If the published versions of the ATO, Air Plan and Flight Schedule are in disagreement, chances are that people didn't read the ATO correctly.⁶⁴



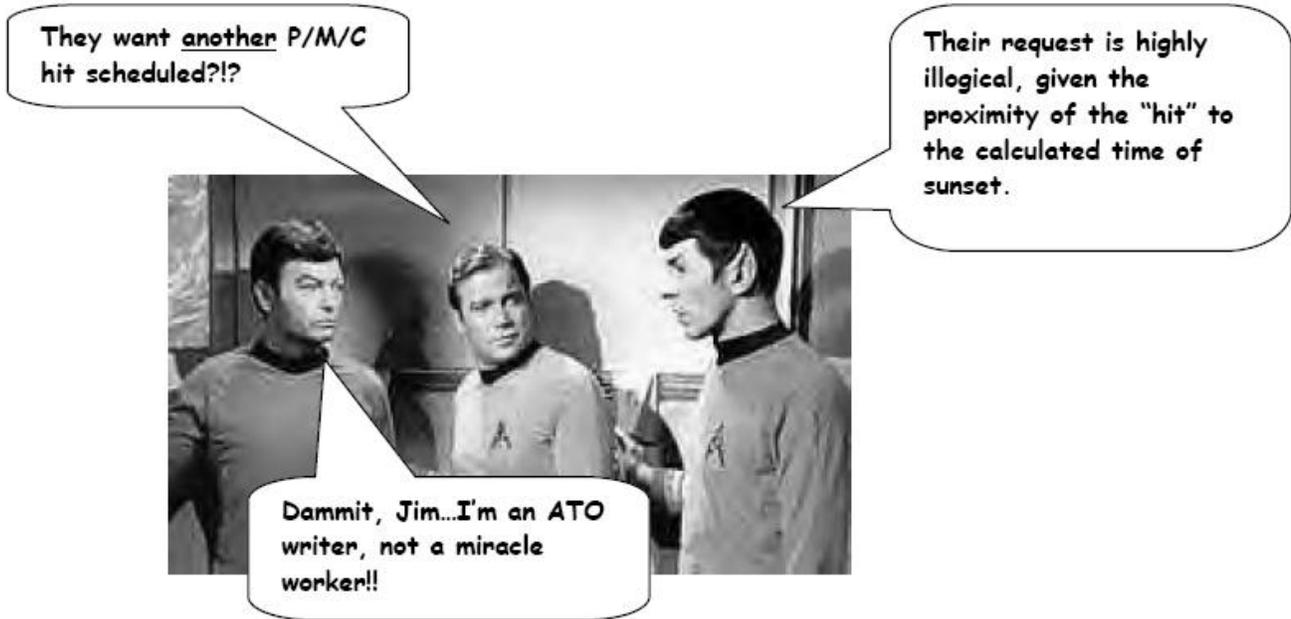
5.4 P/M/C: THE UNFLICKABLE BOOGER

There's no denying the fact that P/M/C will be the single most reliable SWG⁶⁵ source for both the plans and ops sections of TACC. It's becoming less and less fashionable to include P/M/C details within the text of an amphibious ATO. Several recent TACC Dets have had success with publishing a separate P/M/C message that contains all the "airline schedule" details that are important for the ARG/MEU, but really don't belong on a bona-fide ATO. Splitting these two products up makes it easier for the ATO writer to push our inputs to higher authority on a tight time schedule. The passenger stuff can then be hashed and re-hashed *ad nauseum* and published when it's finally close to being right. Remember not to abuse the LSD and LPD. They need to know their overhead times, and any changes to those times. Be sure to keep them in the loop no matter what.

⁶⁴ True Story: One afternoon as the 1800 ATO "push" deadline was fast approaching, the TACC ATO writer, OIC, MEU Air Officer and CPR N3 were having an intense discussion, attempting to resolve some serious conflicts. Injected into this spirited debate was the sudden, unmistakable sound of a flight schedule sliding under the stateroom door! Sure enough, there on the deck was a signed and much-xeroxed "final" version of the flight schedule the ACE intended to execute the next day. Needless to say, the debate then turned to who would have the honor of rolling up said flight schedule and poking it in the eye of the people who wrote it...

⁶⁵ Swear Word Generation

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Critical points to remember:

- Availability of aircraft: previous coordination with the respective Operations officers is required to determine which flights are available for P/M/C tasking
- Weight limits: number of passengers a specific type can carry (which in turn depends on local density altitude)
- Priority: number of interim stops for the aircraft, and P/M/C requirements at those stops; conflicts often require higher authority to resolve
- Time on deck: different aircraft require different amounts of time on deck; certain types of cargo require additional time on deck; hot seat / hot refueling may require additional time on deck, etc. Time in flight: max range, especially for ship to shore flights; fuel limitations
- Permission to fly civilians: requirements are different for USN and USMC aircraft, coordinate with the MEU Air Officer to determine who will draft the request message to fly civilians/foreigners in USMC aircraft. Need to ensure civilians/foreigners have the appropriate clearance on file prior to manifesting them on the schedule.
- Sunrise/sunset: consult with CATF to establish a policy, a good rule of thumb is to schedule all passenger transport to be completed no later than ½ hour prior to sunset. Carefully review the applicable OPNAV 3710 series to determine who can bend the “no passengers in aircraft overwater at night” law.

5.5 FINE POINTS ON COMMUNICATION

So many problems are comms-related. So many problems can be solved by effective comms, or avoided altogether by having the right kind of comms in place ahead of time. Some suggestions...

Dedicated Institutional Watch Accounts

You need to set up some generic e-mail accounts for TACC to do business properly. You need a siprnet and niprnet watch officer account that can be monitored continuously. Make it simple and catchy, like

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“TACC_Watch@yourship.navy(.smil).mil.” Same thing for your ATO writer...
“TACC_Plans@yourship.navy.mil” will really help get those inputs coordinated.

We’ve got big trouble...right here in River City!

There will be times when the ship will go into a restrictive communications posture known as “River City.” What happens is this: when the ship needs to either preserve comms bandwidth for a particular mission, or it wants to ensure that it maintains OPSEC by limiting non-secure comms off the ship (niprnet and telephones), it will go into a condition called River City. When this happens, only selected niprnet accounts and POTS phones will remain operational. Make sure the POTS phone in TACC, and the TACC watch niprnet account are immune from River City. You’ll need to remain operational during these times. You’ll also need to make sure those comms lines aren’t abused by your people too, but that’s an easy matter.

5.6 SAVE, SAVE, SAVE!

Take notes, keep records, save chat transcripts. It’s that simple. You will need to be able to recreate records of what TACC did, when aircraft took off and returned, which flights were cancelled and for what reason. There is an amazing tendency among watch standers to make meticulous notes on an ATO or air plan during the course of the watch, only to toss the thing into the burn bag the minute the last plane’s on deck! Then, at the end of a particular exercise or line period, when the inevitable comes from higher asking for “metrics,” you’ll have absolutely no record of what you’ve been doing over the past few weeks!

You definitely want to hang onto that stuff. Not only may the data you save make for a nice bullet in some pogue’s PowerPoint brief, there is a legal reason as well. When the mysterious malady known as “Gulf War Syndrome” started affecting veterans of Desert Storm, the DoD found that they were having trouble reconstructing events as to which personnel or units were at which locations on a particular date and time. The chat transcript, annotated air plan or electronic log you keep may help some future researcher with something far more important than some cheesy end of cruise brief!

5.7 ON THE IMPORTANCE OF PFPS/FALCONVIEW

You really, really need to know how to use this important tool. You’ll either have to learn it before you deploy, or you’ll have to learn it during deployment itself, when you’re overwhelmed and behind the power curve.

On deployment, you’ll use it to show Harrier guys where not to fly if they want to avoid a flight violation. When they go ahead and fly there anyway because they think they’re smarter than you, you’ll use the same products you prepared to assist them in responsible flying to demonstrate that it is they, not you, who richly deserve the spanking they’re about to receive from the Commodore.

Make sure you bring a good electronic set of charts as well. And don’t forget to bring your basic PFPS/Falconview disk with you on deployment. Once you get comfortable with the program, you’ll come to rely on it for all sorts of applications.

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5.8 TRY THIS IF YOU'RE DOING LOTS OF R2P2 OR CONTINGENCY PLANNING

If you find yourself in a situation where there is a lot of planning going on (CERTEX, EVALEX, major exercise), the OIC is going to need some help. When things are really busy, the OIC may not have time to effectively communicate to the TACC watch the plan he so painstakingly developed. Try this little scheme:

- Alter your watch officer rotations so that each officer has a day where they don't stand watch.
- On their "off day," they become your planning assistant. They help you develop the detailed plans which will (usually) be executed the next day.
- The next day (mission execution day), your planning assistant is back on the watch bill and ready to execute the plan he helped build. This gives you a very effective battle handover to your watch sections...and it gives you some much-needed assistance!

5.9 WHEN IS A SAR NOT A SAR, OR AT LEAST NOT QUITE A SAR?

Yes indeed, SAR is one of our collateral duties in TACRON. We write the OPTASK SAR, we do the pre-ex messages for SAR exercises. We take SAR seriously, and we're anxious to do our job if an emergency arises. But when is it *really* a SAR situation?

If you have a situation where an aircraft goes into the water, you have yourself a SAR. But what about a man overboard? Is that a real SAR if the victim is in the water and the ship is maneuvering to effect a recovery? Is it a real SAR if a ship can't find one Sailor and conducts a man overboard muster in an attempt to determine if the Sailor is in effect aboard? Is it a real SAR if the aft lookout thinks he sees a light in the water and the ship conducts man overboard maneuvers?

In these situations where it's a possible man overboard situation, it may not be a true SAR situation. Give the ship some time to do its job. If a ship reports that it's executing a man overboard, definitely get out the SAR checklist and begin going through your procedures internally. If the ship's CO declares it a SAR situation, then you'll be ready to spring into action. What you don't necessarily want to do, however, is to lean so far forward that you're stepping on the prerogatives of the ship.

This can be especially true in situations where the ship conducting the man overboard procedures is your own flagship. Coordinate closely with Flag Plot/TFCC, but wait until the ship declares it a SAR situation. You can prompt them, of course, but be careful not to step too heavily into their business.

5.10 SILLY THINGS SEEN AT THE AIR PLANNING BOARD

- Long impassioned arguments on PIM (too far behind to fly) or distance to land (too far from land to fly ship-to-shore) or airspace (we can't fly there because...). There was nothing intrinsically silly about the arguments themselves, except for this fact: all of the participants in the argument were gesturing at an empty table, bare wall or blank display screen. There wasn't a chart, PFPS graphic or GCCS display anywhere in sight! That's just plain silly. It is the responsibility of the N3 rep to bring a chart to the APB meeting which clearly shows PIM, nearest land, etc. The TACC rep can help things along by bringing a PFPS graphic showing any airspace issues along the intended route of travel for the next day. Don't have arguments where you're not really sure what you're arguing about!

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- Divergent planning. The APB comes up with a plan. Meanwhile, the Crisis Action Team and Battle Staff are coming up with an entirely different plan as part of the R2P2 process, but neither the APB nor the R2P2 people are talking to each other! At the end of the day you have two uncoordinated and disjointed plans, which have to be reconciled very late in the evening. This is also just plain silly.
- APB members who make statements or commitments that will not be backed up by their respective COs. Very silly indeed, but it happens far too often at the APB. If somebody has a bright idea or proposed solution to a vexing challenge, stop that individual by asking “does your commanding officer back your proposal?” If the proponent is unsure of the answer, no need to pursue the point further until that question is answered.

5.11 ON THE IMPORTANCE OF CHECKING IN WITH ICEPACK

Watch out for the “Icepack Bypass Syndrome.” Tactical aircraft will seek to switch directly from tower (or FAA controller) directly to Range Control. Their reasoning is this: “I don’t want a flight violation, therefore I’ll talk to the people who can really screw up my day.” That may work at some level in SOCAL or some other controlled CAS environment, but in combat it will spell disaster. Never forget: WE are the controllers in amphibious airspace. Don’t let them get away with it, even once! It may seem trivial during routine training, but it sets habits (good or bad) that will be very hard to break later. Stop this nonsense as it happens, and make it a major debrief/spanking item. The same is true for helicopters. If the situation, as directed in your ACP/ACO/SPINS, dictates that the helicopters are supposed to check in with Icepack, then they jolly-well better check in with Icepack!



In our airspace discussions, we likened ICEPACK to a traffic cop. As you prepare for workups, ask yourself a couple of questions:

- **Which of the two cops in this picture is most likely to be obeyed?**
- **Which kind of cop do *you* want to be?!**

5.12 PILOTS DON'T READ OPTASKS!

“Charley don’t surf” and pilots don’t read OPTASKS; you know it’s true. You will need to make a well-researched and iron-clad OPTASK AIR ESG which will define your role as TACC afloat, that much is certain. The warfare commanders will read it, and that’s important. The nugget O-2 aviator sitting in the Ready Room will not read it. C’mon...we all know that! What they will read, though are the SPINS. Make sure your SPINS reflect everything your OPTASK AIR is saying but in a format suitably tailored⁶⁶ for the aircrew audience.

What kind of SPINS?

Two kinds: Master SPINS and Daily SPINS. Write a set of Master SPINS that cover a longer period of time, say an entire at-sea training period in SOCAL.

Things the Master SPINS could include:

- Key concepts & relationships contained in the OPTASK AIR (“TACC does this; AATC does that” kind of stuff that’s important for the pilots to understand)
- Daily procedures you want them to follow (here’s the place where you’ll tell the pilots how you’re going to do IFF checks, for example.)⁶⁷
- General description of the airspace. If you’ll be operating in a HIDACZ for the duration of the exercise, here’s the place to describe the airspace and the procedures. Also include stand-off distances, no-fly areas, etc.
- Any other “gouge” you want the pilots to study

The Daily SPINS will be included at the end of the daily ATO (or your ESG ATO extract).

Items suitable for the Daily SPINS include:

- “Card of the Day” type information...daily changing callsigns, prowords, “base numbers,” etc.
- Daily changing airspace info. Are certain airfields closed? Particular airspace control measures in effect?
- Handy information on ships and airfields. Callsigns, TACAN channels, tower frequencies...
- Any particular procedures or items of interest pertaining to that fly day (air-related items from a confirmation brief might go here)
- Anything requiring further emphasis (“*When we say 12 NM standoff from Farge Island, we really mean 12 miles!!!*”)

Remember: OPTASKS are for the fancy folk, but SPINS are for the rest of us...

5.13 ON THE IMPORTANCE OF HAVING A COMPLETE SEABG

Resist the temptation to skimp on your seabag. TACRON enlisted personnel face some real challenges when it comes to shipboard storage space, but a resourceful Det Chief may be able to find some additional “Lucky Bag” storage space for bulky luggage items or infrequently used uniform items. Another option is to devote some stateroom space for overflow items. Officers, with those luxurious staterooms, have ample storage space. If you put to sea for a six month cruise with only two flight suits, you’ll regret it. There will be some high-visibility ports where they might only let people off the ship in

⁶⁶ “dumbed-down”

⁶⁷ Keep it in a simple, checklist-style format. Remember your audience.

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their Service Dress Blues or Summer Whites. The OIC should also consider taking a nice sportcoat along...places like the American Club in Hong Kong usually put on a big to-do for senior officers, something not to be missed...but there is a dress code.



Make sure everyone has a complete seabag!

The Warfare Commanders are senior Naval Officers commanding ships, and the big ESG staff positions are often post-command O-6 types. Your first meeting with them may be at a “Warfare Commanders’ Conference” hosted by Tactical Training Group PAC/LANT. They’ll be arguing doctrine, tactics, and command relationships. A brand new TACRON OIC will have trouble holding his own in a crowd like that if he doesn’t go in prepared. The real danger is that TACC will be marginalized and hamstrung in its ability to do its mission. The good news is that with a little preparation, you’ll be able to make a very solid first impression!

Come prepared and well-armed.

If you’ve gotten this far in your reading of *TACRON-101*, you’re well on your way to understanding your mission. If you’ve been to “Det School” and have read our expeditionary air control NTTP, so much the better!

You need to be grounded in doctrine. If you can quote a line or two from the NTTP, you will have instant credibility. Be sure to bring a couple of extra copies of the NTTP, because the chances are that nobody else in the ESG has actually read it, and most have probably never even *heard* of it! Handing a copy of the NTTP (with pertinent sections bookmarked & highlighted) to the Air Defense Commander or the ESG N3 will speak volumes. And, finally, it would be an excellent idea to bring a draft copy of your OPTASK AIR ESG to the meeting. If you have nothing else, bring a copy of the last det’s OPTASK. The other guys there will be brandishing OPTASKS; you should too!

5.14 DON’T BLOW OFF THOSE EARLY ESG MEETINGS!

“No second chance to make a first impression.” That’s the saying. There is a definite possibility that an OIC will be at a disadvantage in his first encounter with the other key players in the ESG. Think about it...the OIC is very new to the job, probably with no prior TACRON or amphibious experience.

Prepare for that first ESG meeting!

Know your job

Know your doctrine

- NTTP 3-02.1.3
- Det School
- TACRON-101

Bring presents!

- Copies of the NTTP to illustrate your points and give as souvenirs to warfare commanders
- Draft OPTASK AIR ESG

Read the other guys’ stuff!

- Get copies of the ADC’s draft OPTASK and match it against yours.

5.15 KEEP TRAINING, ALL THE TIME!

There are always training opportunities. Always. During your at-sea workups, everyone in TACC will be plenty busy, and pretty much tapped out. When you finish your JTFEX graduation exercise, you will be at the peak of training and performance. Don't make the mistake of thinking your training is over at that point.

Here are some suggestions to keep the training good times going when deployed:

- Schedule ESG-wide training evolutions like SAREXes.
- Conduct in-house TACC training. During the slow periods of the fly day, the TACCWO can run drills with the watch section. If you have an unused frequency (and EMCON permitting), you can even practice radio voice procedures (with the TACCWO playing the part of the pilot).
- Have your personnel develop training briefs based on standing SOPs, the OPTASKS, and pertinent TACMEMOs.
- Have your IS prepare country and area briefs for Det personnel.
- Divide your personnel into teams and stage a "TACC Olympics" (see box). Include your officers on the team, and watch the fun as they make fools of themselves on the scopes and ASTABs. This is a great team-building event, and encourages agility with both the pubs and the equipment.
- Don't forget those warfare quals! Cruise is a great opportunity to work on EAWS and ESWS badges.

5.16 READ THE NTP!

We probably shouldn't have to mention this little tidbit at this point of your reading, but you'd be surprised at the number of TACRON folks who haven't cracked that book yet...

5.17 BROWSE THOSE TACMEMOS

Once you've mastered the basics, you're ready to look at some selected TACMEMOs. There are TACRON specific C3F TACMEMOs dealing with CV integration, large-scale CAS control, and air control during domestic humanitarian assistance/disaster relief (HA/DR) operations. Each TACC det should have copies of these pubs in their det library. You may not have occasion to use them during your workups and deployment, but then again...

TACC Olympics

Suggested Competitive Events:

- **ASTAB Agility Trials.** *Who can enter five lines of ATO data into a blank ASTAB display fastest (time penalties for format errors & typos!)*
- **ATC-DAIR Scopology.** *Beat the clock while entering a set of waypoints (with alphanumeric labeling) on the scope!*
- **Radio Relay Races.** *Using proper voice terminology, respond to range, bearing, pigeons and vector requests based on points previously entered on the scope. Timed event.*
- **ACDS Jedi.** *Similar to the ATC-DAIR events, but on the other terminal.*
- **Flip the FLIP.** *Who can find the runway length and phone number for selected obscure airfields in the least time?*
- **Foreign Clearance Follies.** *Another pub-punching event, seeking out items of rude interest in the Foreign Clearance Guide.*
- **Falconview Fantasy Fun.** *Using an ACMREQ, who can build the airspace on PFPS/Falconview in the best time?*

Team with the best overall score will be declared the winner and appropriately rewarded by the OIC!

5.18 NEVER PASS UP THE OPPORTUNITY TO CONTROL AIRCRAFT

It's amazing to see how reluctant people can be when it comes to talking to airplanes over the radio. Always be ready to take control of aircraft in need. Perhaps a previously-scheduled event is cancelled, and now some airplanes have some "free time." There's an opportunity for TACC to step in. As is often the case, a P-3 may check in for a SSC mission, and the ship scheduled to do the control is having radio problems. Another opportunity; TACC should step in immediately and salvage the mission.

5.19 WATCH 'EM EVEN IF YOU AREN'T TALKING TO 'EM

Even though aircraft may have switched off your ICEPACK control frequency, you should continue to track them. TACC controllers should be aware of every air track in their airspace, even if not directly under their control. TACC controllers should be aware of every air track *near* their airspace, because those tracks may enter your airspace, or they may just need some help in the near future. During the early days of OIF, TACC controllers averted a fratricide incident when they detected a large number of friendly missiles heading (co-altitude) toward coalition helicopter operating outside of TACC's airspace. Even though the helo in jeopardy wasn't under TACC's control, wasn't even in TACC's airspace, our guys acted promptly and decisively to save that aircrew's life! Nobody else in the area (not the cruisers, not the AWACS, not even the E-2C) noticed the situation...but the TACRON guys did! The TACRON guys made quite a difference that day, because they were doing more than *just* monitoring amphibious airspace.

5.20 TALK TO 'EM EVEN IF YOU CAN'T SEE 'EM

It's a rookie mistake, and it happens often. An aircraft calls ICEPACK on the radio, perhaps unexpectedly. The TACC controllers start looking for the aircraft on their scopes. They don't see the track on radar, but they keep looking, consulting the ATO, cross-referencing the air plan to find out who the guy is...but all this time, they haven't responded to the radio call! Sometimes controllers hesitate to talk to an airplane on the radio if they can't find it on their scope. If you don't see the guy, *it's still OK to respond to his radio call!* Talk to the guy while you're looking for him; let him know that at least you can hear him calling to you.

5.21 PLOT THE POINTS YOU NEED ON YOUR SCOPES

If you have designed a HIDACZ, it should be displayed on the scopes in TACC. If you are monitoring helicopters flying a dedicated route during ship-to-shore movement, those points should be plotted on the scopes. The ATC-DAIR and ACDS scopes can only display a limited number of lines and points, and often the flagship agencies (AATCC and CIC) will object to "somebody else" plotting points on "their" systems. If you need to see some points on your consoles in order to do your job, don't be shy about speaking up! Play the "Safety of Flight Card" if you have to. Remember, TACC is the ACA for the ESG. The ACA needs to plot its airspace, just like everyone else!

5.22 ANTICIPATE BAD AIRSPACE AND BAD GEOMETRY

Organize a couple of your clever AC's and OS's into an Airspace Action Team⁶⁸ Have this team research all the unusual, funky and unique airspace that your ESG is likely to encounter during its transits and deployed operations. Pay particular attention to international boundaries, territorial seas, archipelagic seas, restricted areas, warning areas and TCAs. Sources to consult include the FLIP publications, Foreign Clearance Guide, and the Numbered Fleet Commander's OPOD 201 (or equivalent) for the AOR in which you'll be operating and/or transiting. Oh, and don't forget to consult the NOTAMs. Somewhere out there, a small unknown island or gunnery range is lying in wait...with your name on it! Be sure that you find it before it finds you.⁶⁹

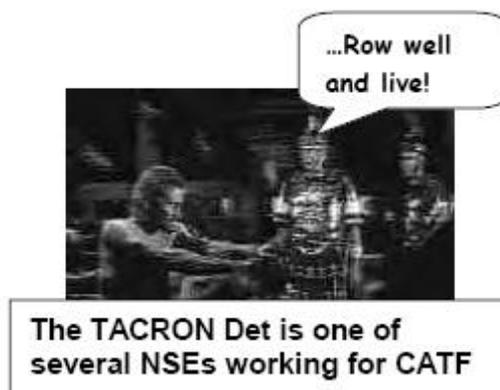
Get the most recent copy of PIM⁷⁰ from the ESG Staff's navigation people. Plot PIM on PFPS/Falconview, and plot all those odd bits of airspace that you discovered during your extensive research.

Now, it's time to review your high school geometry notes. If the line of PIM intersects any of these odd bits of airspace, you have the potential for conflicts. If your ESG ships lie under (or even near) those unusual airspace areas during the times you plan on conducting flight operations, there could be trouble. Even if there isn't "trouble" *per se*, it is something you will need to brief to the aircrew and the ESG staff. If there are some territorial issues, it is a good idea to include the JAG in your discussions. One bit of good news, since you've already done all this work (and saved it) on PFPS/Falconview, it is a simple matter indeed to convert this gouge to a stunning PowerPoint® graphic!

The main point here, though, is that people need to know about the potential conflicts. One last bit of advice: PIM has a funny way of changing, sometimes several times a day. You may be "ahead of PIM," or (more often) "behind PIM." That will change the times when you will be transiting near/under your potentially naughty airspace. So, you may hit the rack thinking that the ESG will be well clear of that troublesome warning area by the time flight ops commence the next morning. When you wake up, you find that the force "fell behind PIM," and that you will be conducting your first launch smack dab in the middle of that warning area! It happens.

5.23 MAKE FRIENDS WITH THE OTHER NSE'S

TACRON is one of several NSEs⁷¹ working for the ESG/ATF commander. Get to know people in those other NSEs (EOD, LCU guys, etc.). It will open the door for some neat training opportunities for your people! The EOD guys may be going to the range for weapons training, and invite some of your people along, or you may get an inside track on a LCAC ride for your SOQ nominee...lots of possibilities for training, professional



⁶⁸ Alternate title: "Airspace Goon Squad"

⁶⁹ More accurately, be sure that you find it before a Harrier finds it, and the ESG Commander finds you and wants a piece of your *podex*!

⁷⁰ Stands for "Position and Intended Movement." It's the plot of the ESG's navigation track across the ocean.

⁷¹ Naval Support Element

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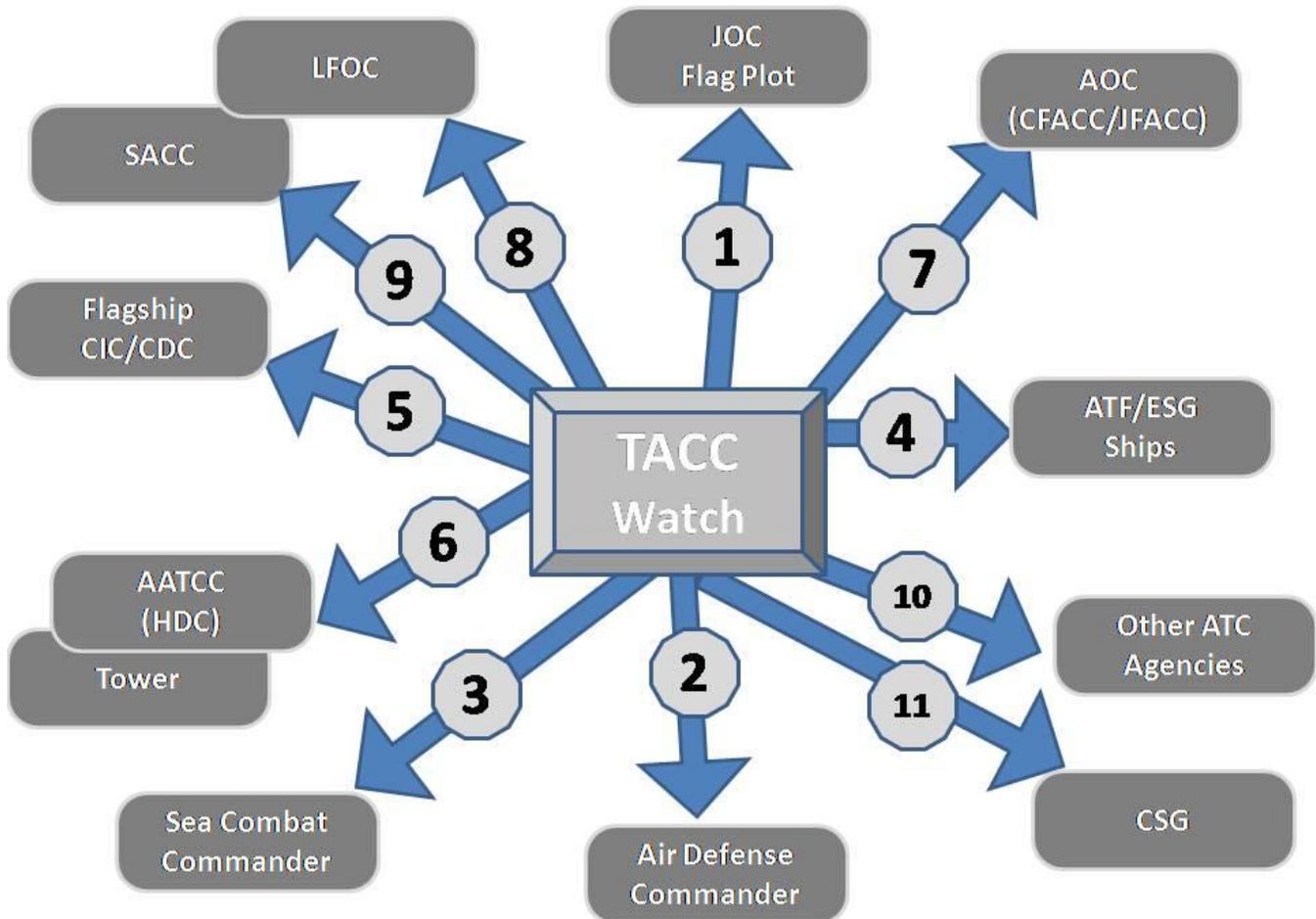
military enhancement...and just plain fun!

5.24 YOU DON'T KNOW IT'S A RULE UNTIL YOU BREAK IT

That pretty much speaks for itself. The best way to avoid nasty surprises is to read the FLIP pubs, the fleet commander's OPOD 201 (or equivalent), and make sure you and the aircrew know the applicable SPINS.

5.25 ALL ROADS REALLY DO LEAD TO TACRON!

To illustrate the point, look at this diagram. It depicts all the agencies that the TACC watch needs to communicate & interact with during the course of the day.



1. You need to push just about everything to Flag Plot (Joint Operations Center). There's an old TACRON saying: "Gag the Flag." Push them *everything*. Don't assume they're getting it all over chat, either. Call them often. Update them with the status of Greencrown checks, launch & recovery complete (brief exceptions), status of PMC, aircraft checking in on support missions, etc. etc. You can't send them too much information. Only back off once they cry "uncle."
2. You need to keep the ADC advised on major aspects of ATO execution. Are the launches proceeding as fraged, are there any delays to the timeline? Are the helicopters and fixed wing aircraft going to deviate in their helo routes or CAS holding/penetration points? Are there new airspace control measures going into effect which will impact his air defense mission? The ADC will also, of course, be very interested in the status of his CAP/DCA aircraft. Are the Harriers launching on time? Any change to their weapons loadout? If the JFACC is providing external CAP

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support, are they on time, as fraggged? The ADC needs to know the status of the Greencrown checks. You'll need to keep a constant cadence going with FADIZ/Greencrown. The NTPP does a very good job of explaining the flow. Bottom line: you need to know where all ESG/ATF aircraft are, all the time. If the ADC asks the identity of a certain air track, you need to be able to tell them definitively whether or not they're one of our guys!

3. The SCC needs to know the ATO execution status as well. You'll need to keep him informed of the status of fixed and rotary wing SSC/ASW aircraft & UAVs. What in the air scheme of maneuver will impact the SCC's mission? What changes in the MAGTF's plans will affect the SCC and the ADC? Push that info out!
4. The individual ships in the force need to know what's going on with the ATO as well. Remember, they don't have TBMCS, and they're not listening to land launch or the mission execution frequencies. You don't need to push everything to them, but if you're keeping the world updated on chat, that's a start. If there's something in particular which will affect a specific ship, don't just rely on the a general chat note. Make sure they acknowledge it in a whisper box, via POTS or over the radio. One of the big, day-to-day things they'll want updates on is the status of PMC missions heading to them. Also keep an eye on their positions relative to the flagship. If they're getting too far distant, they'll disrupt your PMC timeline. Get flag plot involved to correct the situation. Watch that geometry!
5. Don't forget that the flagship is an ESG ship as well. Just because they're co-located with you doesn't mean that you are absolved from pushing info to them! You can walk next door to Combat and talk to the TAO in person, which will pay big dividends. Don't forget to back up those personal conversations with radio calls or chat entries. Cover your six...
6. You'll be interacting with AATCC and the Air Boss constantly. Of the two, concentrate your attention on AATCC; they'll relay most of the important info to the Boss. Things you'll be talking about: launch & recovery status, individual aircraft status, deviations from the air plan, PMC execution, and (perhaps most importantly) handoff of aircraft between TACC and AATCC as they proceed outbound/inbound. Use your internal ICS comms nets. There's a tendency for AATCC and TACC to not communicate well with each other. Perhaps that's due to the elite nature of the AC community; perhaps it's due to the natural rivalry between ship's company and embarked staffs. Whatever the reason, you can't let bad comms mess up your ATO execution!
7. All the things you learned in your JFACCery school comes into play here. Use TBMCS ESTAT to update mission status and airspace, but be prepared to get on the phone or chat with your LNO reps in the NALE. Let them know what's going on with the amphib, so they can push that information out onto the floor in current ops. Use your NALE reps as a means of conducting liaison with the CSG as well.
8. Don't neglect a good comms cadence with the LFOC watch! During mission execution, they'll try to maintain comms with the Air Mission Commander for helo missions. They'll have information you need...and vice-versa. Pass them launch status information, progress of Greencrown checks, and status of warfare commander (ADC & SCC) missions which might have an impact on their operations. Let them know if ships involved in air execution are beginning to drift off station, or if they aren't where they were planned to be (example: if the LPD is supposed to be a ready deck, but she's still 50 miles away because her replenishment at sea evolution is running long, the LFOC needs to know that!)
9. We talk about supporting arms execution in the NTPP. Your ASC (Air Support Coordinator) needs to be in constant comms with TACC. You need to deconflict warfare commander missions, CAS missions, PMC missions and helo assault missions with fires missions real-time. Make sure the comms channels are open!
10. You will probably have to keep in contact with local airspace agencies to execute your missions. Examples are FACSFAC in SOCAL, Hula Dancer in the Hawaiian islands, and various ICAO agencies or centers when operating overseas. If an agency has the power to issue flight violations to your aircraft or complain bitterly to the US Defense Attaché Office (USDAO), you need to keep those people happy! Talk to them and coordinate things, and make sure your aircrew are submitting their flight plans when required. Yes, the aircrew are big boys and should be aware of their responsibilities, but just let one of them do something stupid, and see how much of *your* time it will waste!
11. Finally, if there's a CSG in the vicinity, TACC will be the primary ESG POC for deconflicting flight ops. Make sure you and the people on the carrier are keeping in touch with each other if your airspace begins to crowd each other. Again, use your people in the NALE at the AOC to solve most of your problems, but be sure you have a way to push & receive info quickly and frequently with the CSG directly.

5.26 GET ORGANIZED EARLY

Assess the strengths and skill sets of your Det as early as possible in your workup cycle (hopefully, well before workups begin!) Assign those key positions (Ops O, Air Support Coordinator, Plans Officer) early. Identify your airspace experts and get them trained in PFPS. Make sure you have trained

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TBMCS operators and SYSADs. Give your Petty Officers the collateral duties best suited to the needs of your det. The sooner you get organized, the better it will be.



“Just like any other motorcycle gang, the sooner you organize, the more fun you’ll have”

-- Anonymous Det OIC

5.27 TACRON IS UNIQUE

Among the air battle managers operating in the joint air world, TACRONs are unique. We have professional air traffic controllers like the other services, but we don’t have a dedicated career path of professional air battle management officers leading the TACRON dets. You have to learn this stuff all at once, rather than as part of a normal career progression. Guided by this gouge book, and by the NTP, we’ll give you the best start we can.

5.28 ON THE IMPORTANCE OF PRESERVING GOUGE FOR FUTURE GENERATIONS YET UNBORN...

This book is only as good as its most recent inputs. As you saunter (or stagger, as the case may be) through your workups and deployment, keep asking yourself something like “why didn’t somebody tell me about *this*!?” or “Man, was *that* bum gouge!” If you find yourself saying that, write it down! That becomes the topic for the *next* edition of TACRON 101!

APPENDIX A

So you're going to the field, eh...?

On numerous occasions, TACRON personnel will go ashore and execute their missions in what has euphemistically been termed "field conditions." This is true for TACRON folk who have received MMT (Marine Mobile Team) training, but it just about anyone might find themselves working in a Marine TACC ashore during some time or another.

The below e-mail contains some useful gouge written by one of our contingent that served with the Marine TACC ashore in Kuwait during Operation Iraqi Freedom. He wrote this note in response to some questions being asked by people who were going to live in field conditions for an upcoming Ulchi Focus Lens exercise. Some useful tidbits. Read on...

Regarding gear "gouge":

... ask the MTACS folks "to what fidelity" are they expecting to train to, WRT personal gear issue, etc.

- Is the MTACC "in garrison" or "in field"? Packing your web gear will definitely be different. "In garrison" really meant that web gear was to carry your mask and pistol. Rest of it was unnecessary bulk for field use only. Note that I NEVER ONCE used my Camelback or canteens in garrison. Water bottles were on pallets everywhere. If they don't do that, there will be bowsers nearby.

- Are you planning on doing MOPP drills? Masks are one thing, but if they are planning on doing the whole smash (rubber suits), then sizing will be required. This gets expensive, so Susan should ask the MTACS folks on this specifically. Also note that the HTACC (CAOC in Osan) is specifically NOT doing CBT drills this UFL.

- Are you going to be wearing flak vests and helmets? Sizing again is key and getting it wrong is a total drag. As for vests, if you are able to size them here, do it. Too big and it rubs the insides of your arms raw. Too small and you can't breathe. Expect to wear it on top of everything except your web gear.

- I assume it will be hot and muggy in Korea, so I assume jackets and ponchos not required. I wouldn't worry about "rain". You won't be outside too much.

- I would assume that the ROK hosts aren't wild about weapons. Sidearms checkout and control took a lot of advance coordination with our Marine hosts... I would strongly advocate that we NOT play that game if can avoid it. Having a sidearm 24/7 is a pain in the butt. Losing your sidearm would be even worse.

- I'm assuming that the MTACC is doing the Tent drill. If so, Susan⁷² should get an assurance that cots are made available and staked out in advance. On arrival in

⁷² It doesn't matter who the mysterious and elusive "Susan" might be; just pay attention to the gouge in the e-mail!

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Kuwait, our Es were told "none available" and so I gave up mine and a couple other "officer" cots, assuming (correctly) that an O-5 can get a cot much easier than lower paygrades. I only spent one night on the floor.

- If you're doing cots, I URGENTLY RECOMMEND each of you bring a blow-up air mattress. If you want to know what it's like sleeping on a cot, lie down on the floor in your office. You'll get the idea. Air mattress and air pillow packs better than the "rubber bitch" and is a whole lot more comfortable. Also, if you're doing cots you'll want the mosquito netting. It's a hassle, and it keeps some breeze off of your cot, but it keeps the dust off of you at night while you sweat, and I hear Korea is lousy with bugs.

- Sleeping bags are warm, which might not be desired on a hot Korea night. REI has these awesome cotton sleeping bag liners (called Sleep Sack) that fold up into a small pouch the size of two fists. If it's hot, that's all you would need to sleep in, with the sleeping bag and mattress below you. GOUGE!

- While the ground pounders will be in BDUs, the MAW staff aviators anyone else's claiming to wear wings will be in bags. We wore both interchangeably. But if they go to anything above MOPP 1, you'll just wear the rubber suits. DO NOT attempt to wear any uniform under the MOPP gear, you'll last about 20 minutes... just think of it as charcoal-lined BDUs.

- Are there going to be "comfort trailers" and/or field latrines/showers, etc., or is it going to be regular facilities? Think about how you will want to go to the showers while walking through 1/4 mile of dirt/gravel/sand, and how you want to carry your shaving kit (we had to go in PT gear). Pack your own towels, etc. You might also want to pack a roll of TP or two... they fit nicely into the gas mask (just in case).

- Laundry???? Pack some powdered soap in zip-lock bags for a few loads... BDUs are good for 2 days, maybe 3 days wear before they get rank, so long as you have clean undershirts. I'd pack to do one big laundry day (2 BDU, 2 bags and 6-7 sets of U-shirts/skivvies/socks. You ain't goin' on liberty, so one set of travel civies is enough. Workout t-shirts? Use your dirty uniform t-shirt.

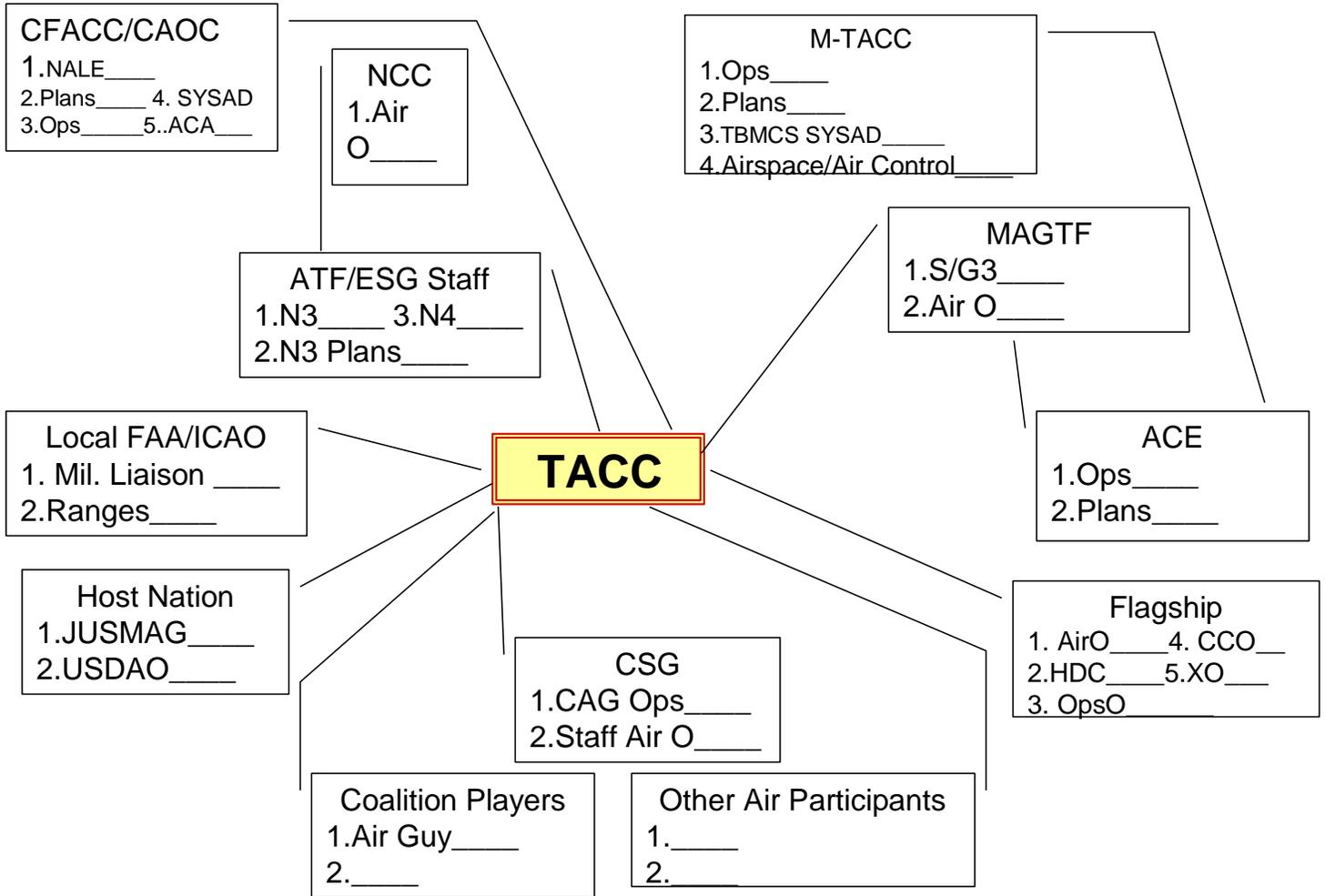
- DON'T expect creature comforts like AC power or air conditioning in your hooch. Dust will discourage your desire to spark up your laptop. Flashlight with some extra batteries will come in handy, but don't go overboard. I-Pod? Bring a book instead.

- Whatever alarm device you use, make sure it's battery-powered. Watch alarms work fine as long as your tent isn't near a runway (dainty little beeps were lost on us because our tents were 1/4 mile from the runway and afterburners are damn loud that close.)

- If you ARE close to a runway, bring earplugs! That's the only reason I'm not deaf.

Appendix B

The TACRON Web of Knowledge



The TACRON Web of Knowledge. Start at the IPC. If you can get names, locations, phone numbers and e-mails of all the participants pictured here by Day One of the exercise, you will probably succeed! The first step is to get the "garrison" POC info for each of these players. You need to have their **deployed** (actual location during the exercise) info as well, though, or you web will fall apart quickly!

Legend:

CFACC CAOC: Combined Air Operations Center. Where the C/JFACC is doing its business. Find the Naval Amphibious Liaison Element (NALE)—these guys are the absolute key to success. You'll also want the plans & ops chiefs (or watch desks), the TBMCS sysad and Airspace Control Authority.

NCC: Naval Component Commander. Who is the numbered fleet commander, or the OCE.

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*TACRON-101:
“An Ounce of Gouge is
worth a Pound of
Knowledge.”*