

FLIGHT DECK

A Special Issue From **Mech**

AWARENESS

A BASIC GUIDE

Fourth Edition-2003

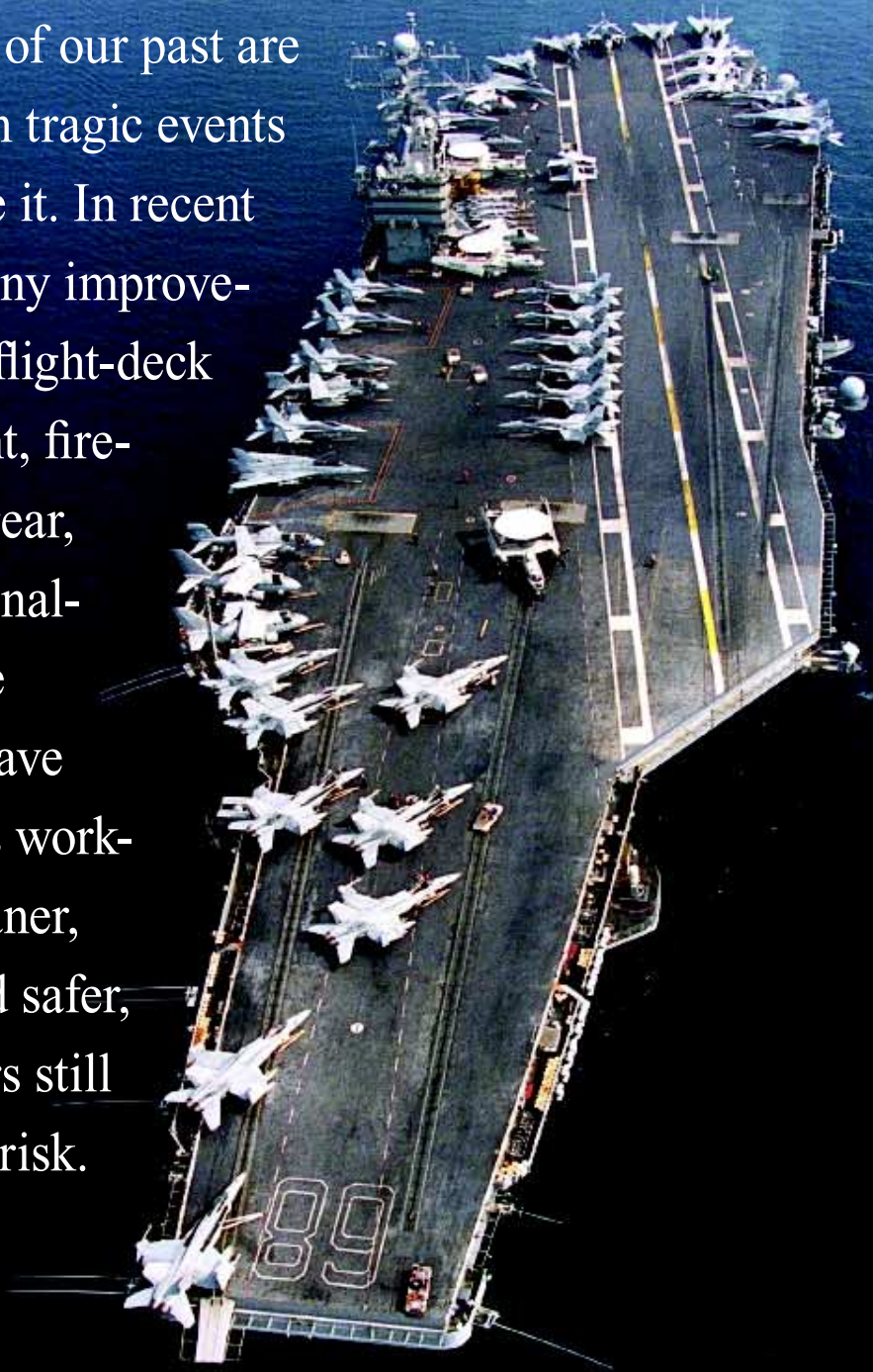


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Foreword

The flight deck of an aircraft carrier is one of the most dangerous places in the world, and the lessons of our past are filled with tragic events that prove it. In recent years, many improvements in flight-deck equipment, fire-fighting gear, and personal-protective devices have made this workplace cleaner, better and safer, but Sailors still can be at risk.



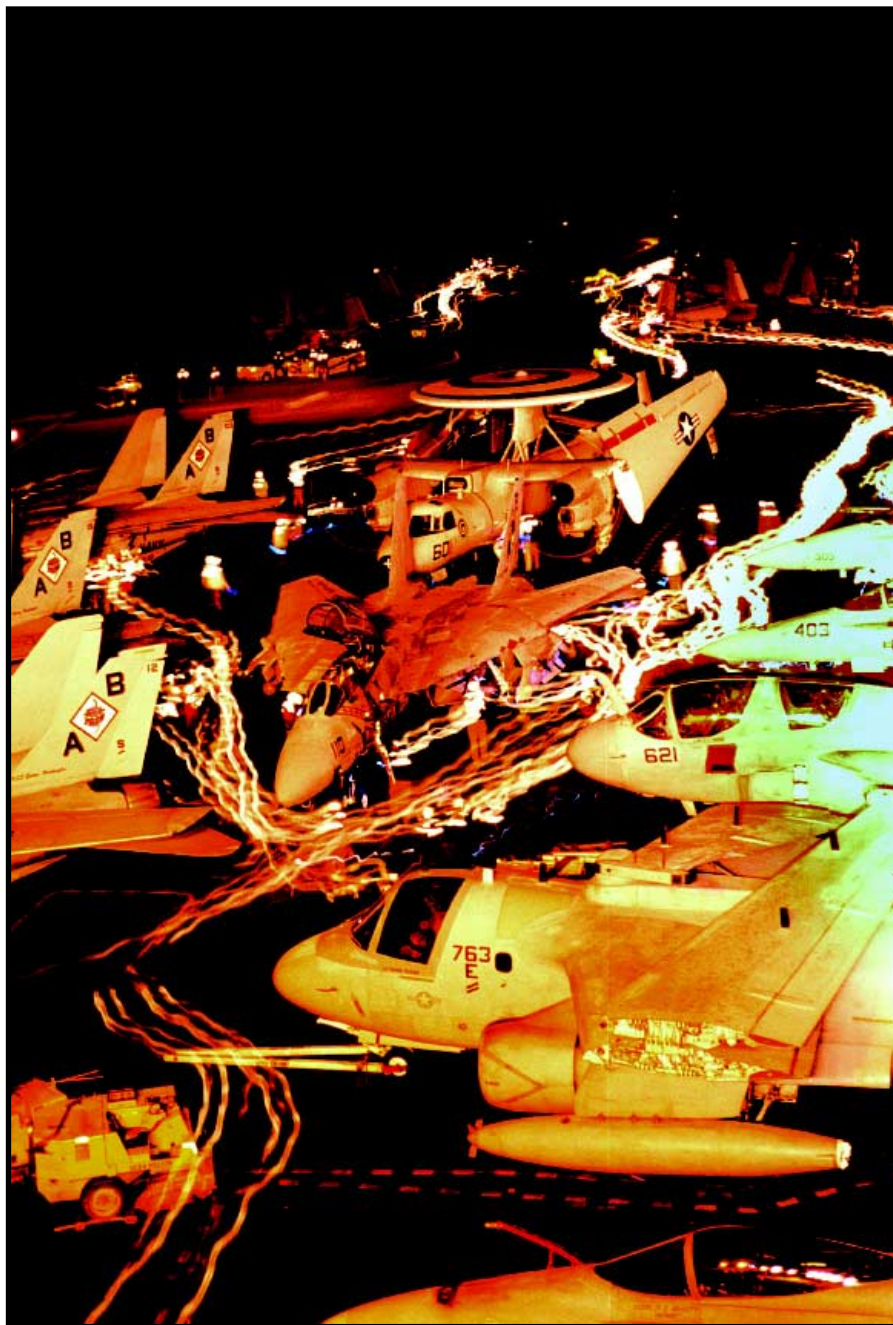
Operational risk management (ORM) helps us to identify and assess hazards, allowing us to make decisions and to implement controls to reduce that risk.

This process helps us to lead and to teach our Sailors how to minimize the dangers and hazards of the flight deck. This new edition of *Flight-Deck Awareness* is one step toward making sure today's professional Sailor is combat-ready. It gives our flight-deck crews some of the tools to avoid injuries, damage to equipment, and death. Mishaps waste our time and resources, and they take away our most precious assets: our people. The better you understand the flight deck, the better you will be able to protect yourself and others.

As you read this guide, remember the lessons learned on *Forrestal*, *Enterprise* and *Oriskany*. Think about those who have walked the decks before you—some no longer with us because of their sacrifice to keep other shipmates safe.

The flight deck, like naval aviation, is not inherently dangerous, but it remains a place where you can get blown down by prop wash, blown overboard by jet exhaust, run over by taxiing aircraft, or sucked up and spit out by a turning engine. Flight-deck Sailors have experienced each of these horrifying events. This guide will let you learn the easy way.

Absorb this information; it will keep you from becoming a statistic. Use this guide to learn about the flight deck for the first time or to refresh



your memory about safe zones, hazardous areas, and useful equipment. This book is not the sole reference for flight-deck safety, but its information will increase your awareness and will add to your previous training.

The Workplace...



Aboard a deployed aircraft carrier, the flight deck serves as the workplace for nearly a thousand Sailors. Although fraught with danger, it is a place of beauty, skill and timing. Many writers have called the activity that takes place on the flight deck a “ballet.” When it comes to timing and interaction, the comparison is apt, but keep in mind that some of the other “dancers” are lethal, multi-ton aircraft that, at times, travel hundreds of miles per hour. The dance floor is a hot, stench-filled, steel deck that can be measured in acres and contains hundreds of hazards.

George C. Wilson—author of *Supercarrier*—said, “An aircraft carrier’s flight deck is a million accidents waiting to happen.” He’s right, but Sailors armed with the knowledge of places to avoid, things to look for, and sounds to be aware of are more able to manage risk.

The flight deck is filled with activity: aircraft taxiing, engines starting, people running, whistles blowing, and sirens wailing. It is so busy that everyone must maintain situational

awareness at all times. Aircraft are launching and recovering, catapults are shooting no loads, mechanics are doing engine maintenance turns, people are re-spotting and parking aircraft, “grapes” are refueling airplanes and helos, and other Sailors are handling ordnance. More than a hundred jobs are going on at the same time.

Each flight-deck task has the potential to end in a mishap. Our sailors from ABs to AZs must get their work done, and they must do their jobs despite the danger.

The flight deck is our office, but it unfortunately has been a place for us to die, as well. Aviation Sailors must know the flight-deck rules. Understanding flight-deck markings, learning how to maneuver about the deck, and recognizing hand signals are critical. It takes the work of many to accomplish any single mission, and the ability to communicate is vital. We must know, understand, recognize, and follow all safety signs and signals. Everyone must work together to control hazards on the flight deck.

The People...



Various people make up the rainbow of colored jerseys that occupy the flight deck.

Air Officer (Air Boss or Boss)—Is responsible to the ship's commanding officer. He supervises and directs primary flight-control operations, aircraft-launch-and-recovery equipment (ALRE), aviation-fuel systems, aircraft han-



dling on the flight deck and hangar deck, aircraft firefighting, and crash, salvage and rescue operations.

Assistant Air Officer (Mini Boss)—Aids the Air Boss by making sure that his plans, orders and instructions are carried out. The Mini Boss acts as the assistant department head. He also functions as the air-department training coordinator.

Yellow Jerseys

Aircraft Handling Officer (ACHO or Handler)
—Exercises overall supervision of embarked aircraft and assists the Air Boss in conducting of flight operations. The handler also is in charge of the Air Department Training Team (ADTT).



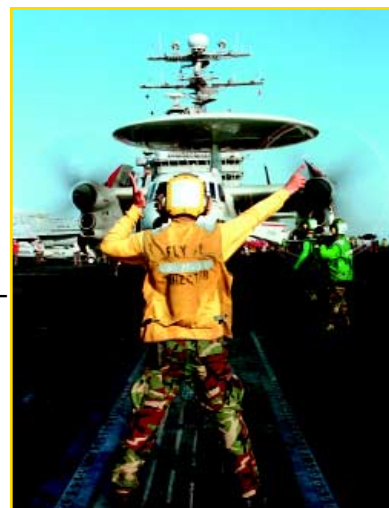
Flight-Deck Officer—Is responsible for safe and timely operations, training of personnel, readiness of aircraft handling support equipment and overall maintenance and material condition of the flight deck.

Catapult Officer (Shooter)—Is directly responsible to the Air Boss, via the handler, for the safe and efficient operation of launch equipment, and for the crew's performance during launches. He has the ultimate responsibility for the safety in launching of all aircraft from the catapults. Shooters wear a green helmet with three orange stripes and a yellow vest.



Aircraft Crash and Salvage Officer (Air Bos'n)—Supervises crash crews and fire parties in handling of aircraft emergencies during flight operations and general quarters. The Air Bos'n also ensures the readiness of assigned personnel, firefighting, and salvage equipment. The crash-and-salvage officer also is responsible for the overall training of air department and air wing's flight-deck personnel in aircraft firefighting and crash and salvage operations.

Arresting Gear Officer (AGO or The Hook)
—Responsible to the Air Boss via the handler for the safe and efficient operation of the recovery equipment and crew during recovery operations. The AGO must understand and comply with aircraft-recovery bulletins, CV NATOPS, and NavAir operating instructions. The AGO also enforces operational precautions. The AGO wears a green helmet with three green stripes and a yellow vest.



Plane Directors—Provide visual signals to cockpit crews (pilots) in guiding aircraft movements.

The People...



White Jerseys

Safety Officer and Crew—Responsible for the overall safety of flight-deck operations. They make sure all activities are in accordance with procedures.

Air Transport Officer (ATO)—Coordinates the loading, unloading and movement of all air cargo and passengers.



Landing Signal Officer (LSO)—Ensures that each aircraft remains within safe perimeters during landing approach through radio communications and light signals. LSOs are stationed portside aft. They initiate the wave-off of aircraft that are outside the safe-landing envelope.

Squadron Plane Inspectors (Troubleshooters)—Identified by the black-and-white checkerboard pattern on the front and back of their jerseys with squadron designator and green helmet. They are responsible for safety and inspection of aircraft.

Medical—They provide immediate medical assistance and treatment to any flight-deck personnel casualties. A large red cross on the front and back of their jerseys identifies them.



Blue Jerseys

Aircraft Handling and Chock Crewmen—The blueshirts are responsible for handling and securing all aircraft with wheel chocks and chains. They also operate the handling equipment, which includes tractors and aircraft-starting units on the flight deck.



Elevator Operators (EOs)—Operate the carrier's aircraft elevators, which move aircraft to and from the flight and hangar deck. They wear white cranials.

Check out the maintenance and material division website at
www.safetycenter.navy.mil/aviation/maintenance/default.htm

and, while you're there, jump over to our air ops page,
www.safetycenter.navy.mil/aviation/operations/default.htm

The People...



Red Jerseys

Crash and Salvage—This flight deck “fire department” fights aircraft fires and rescues personnel on the flight deck. They operate all mobile firefighting and crash-and-salvage equipment.



Ordnance Officer—Responsible for the movement, handling and loading of aircraft ordnance. Their jersey has a black strip and “Safety” on the front and back.

Explosive Ordnance Disposal Officer and Crew—They dispose of, disarm and neutralize defective ordnance. Their jerseys have “EOD” on the front and back.

Ordnance Handlers—The “BB Stackers” move, load, and unload, ordnance on aircraft. Their jerseys have black stripes and their squadron designator on the front and back.



Purple Jerseys



Aviation Fuel Crews—Known as grapes because of their jersey color, purple shirts fuel and de-fuel aircraft from fueling stations strategically located around the flight and hangar deck. The grapes also supply automotive gasoline, lubricating oil to the catapults, and fuel to the jet-engine test cell.

Got Safety?

Safety Instructions **WARRIOR** Safety Posters

Checklists **Mech** **approach** Statistics

OSH **Fathom** **Ashore** ORM

The Naval Safety Center
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The People...



Green Jerseys (Catapult Crew)

Catapult Safety Observer—Is a direct representative of the launching officer makes sure people follow launch procedures and precautions.

Topside Safety Petty Officer (TSPO)—Ensures that holdbacks and repeatable-release assemblies are installed, and that the aircraft's launch bar is seated in the shuttle spreader. For bridle aircraft, the TSPO makes sure the bridle is engaged with the spreader and the aircraft's tow fittings. They are the last people to exit from under the aircraft.

Holdback Personnel (Non-Bridle)—Install holdbacks and repeatable-release assemblies. For bridle aircraft, they install tension rings and bars and holdback assemblies. They also verify position.

Hook-up Crew (Bridle)—Engage the bridle to aircraft hookup points.

Centerdeck Operator—Communicates with

catapult control, relaying aircraft type, gross weight, side number, and catcapacity selection valve settings for the launching officer.

Jet-Blast Deflector (JBD) Operator—Raises and lowers the jet blast deflectors for each



aircraft. The JBD prevents jet blast from hitting personnel and aircraft aft of the catapult launching area.

Weight-Board Operator—Verifies the aircraft gross weight with the aircrew as a final check before launch. Each plane requires a different catapult CSV setting based on aircraft weight.



The People...



Green Jerseys (Arresting Crew)

Topside Petty Officer (TPO)—Supervises the arresting-gear topside crew. Responsible to the AGO for ensuring topside arresting-gear equipment is in good working order.

Deck-Edge Operator—Retracts the arresting gear after recovery of each aircraft. Is stationed in the catwalk.



Hook Runners—Ensure cross-deck pendant and purchase cable have been disengaged from the aircraft tail hook, and, when the landing area is clear, they give retract signal to the deck-edge operator.

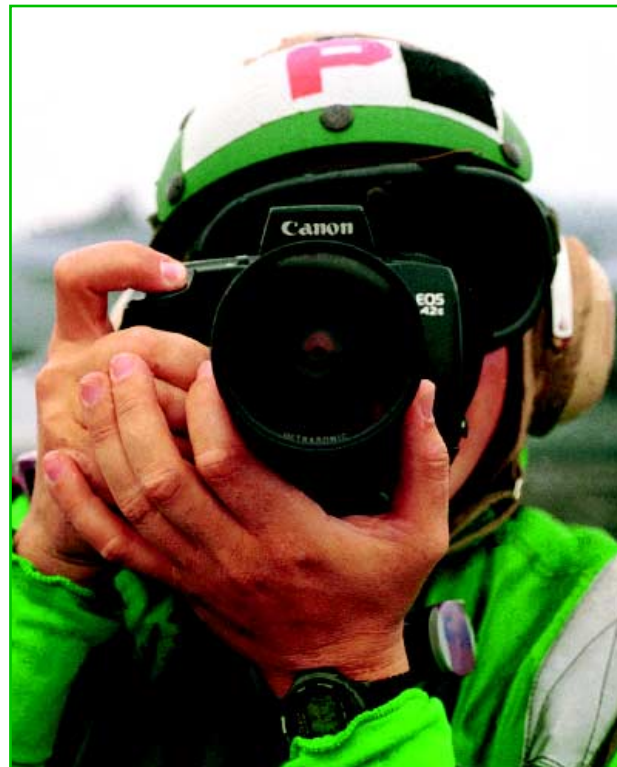
Deck Checkers—Ensure the landing area is FOD free, the wire is in position for aircraft recovery, and all personnel are clear of landing area.



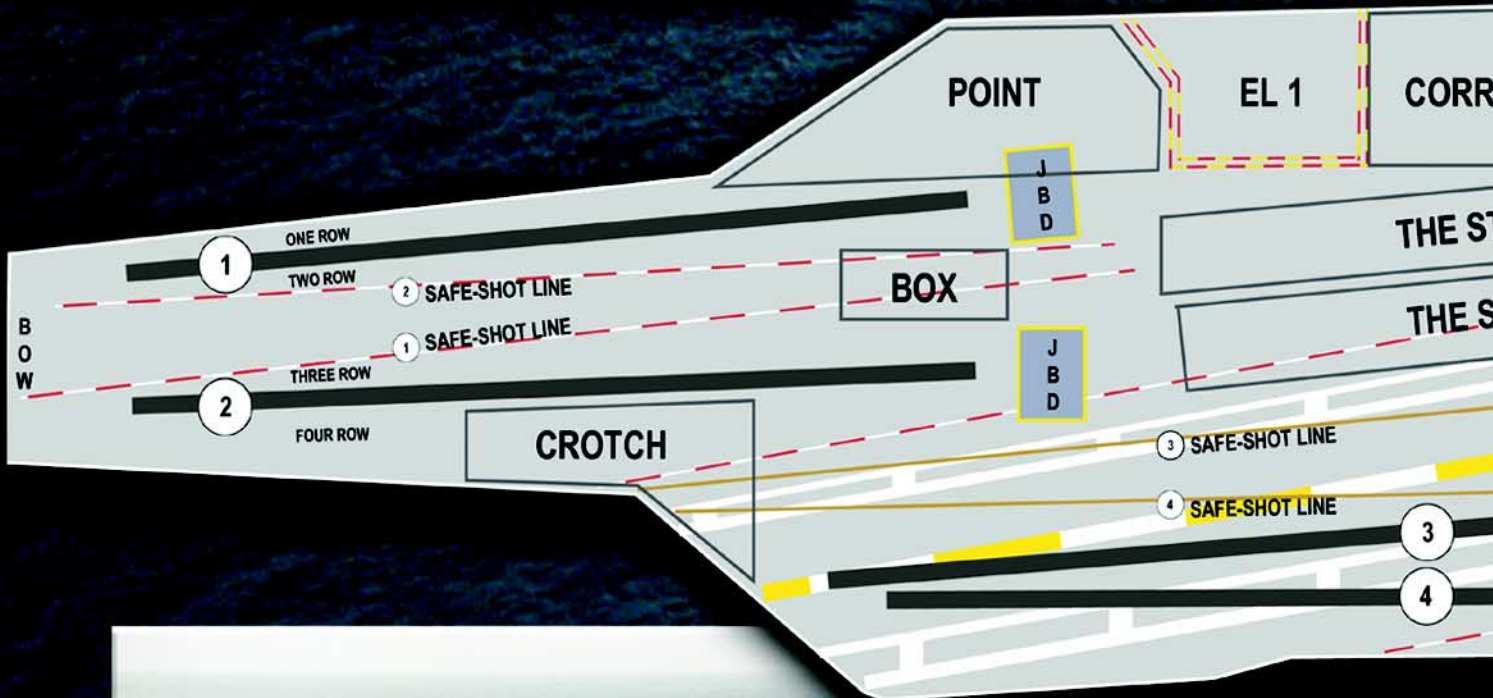
Green Jerseys (Other Crew)

Aircraft Maintenance Crew—Maintain the aircraft. Their jerseys are marked with a squadron designator and black stripe on the front and back.

Helicopter LSE (Landing Signal Enlistedman)—Directs the takeoff and landing of all helicopters with visual hand signals. The LSE wears a red helmet.



Photographers—Capture images and videotape flight operations for documentation and media requests.



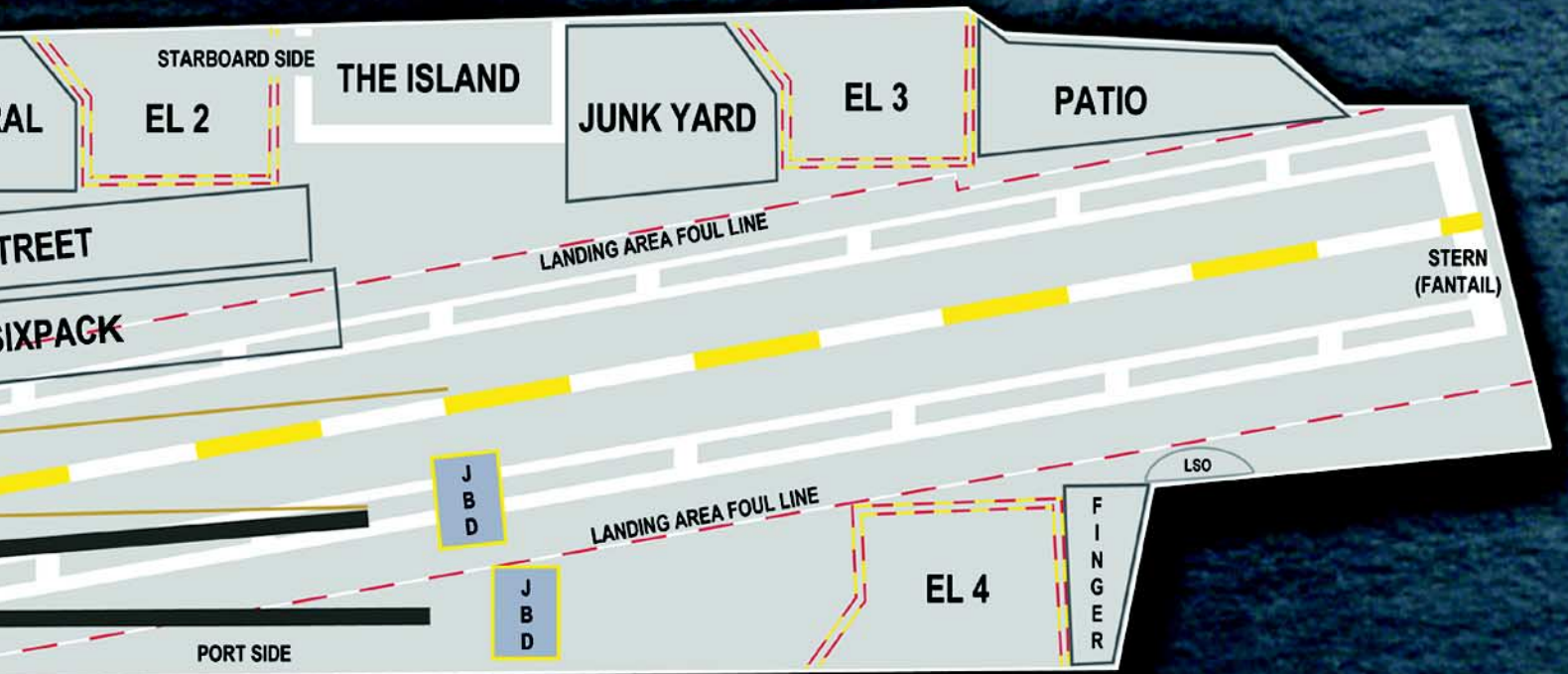
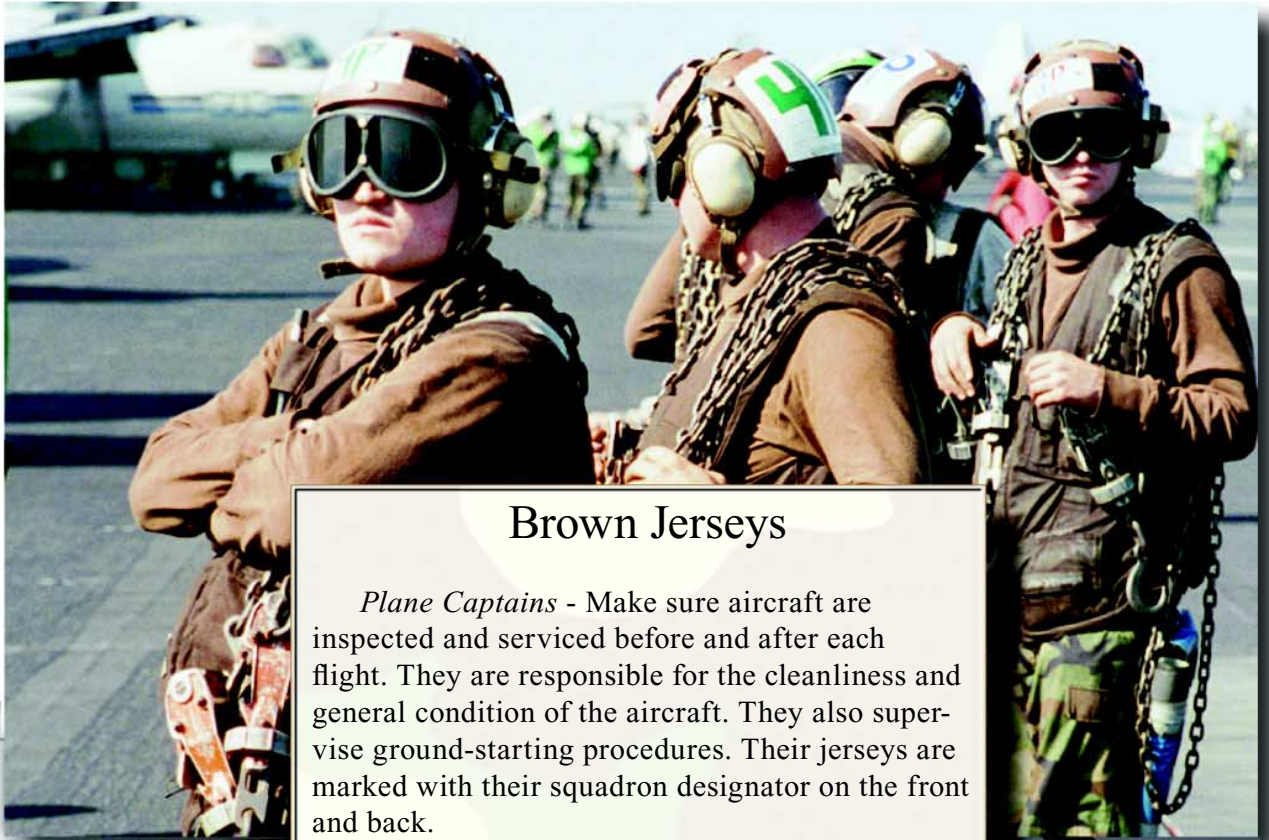


Illustration by Matthew J. Thomas

The People...



Brown Jerseys

Plane Captains - Make sure aircraft are inspected and serviced before and after each flight. They are responsible for the cleanliness and general condition of the aircraft. They also supervise ground-starting procedures. Their jerseys are marked with their squadron designator on the front and back.



Flight Deck References

Flight Deck Uniform Color Reference

PERSONNEL (NOTE 9)	HELMET	JERSEY/ FLOATATION VEST	SYMBOLS, FRONT AND BACK
Aircraft handling crew and chock men	Blue	Blue	Crew number
Aircraft handling officers and plane directors	Yellow (Notes 1-5 as needed)	Yellow	Billet title — crew number
Arresting gear crew	Green	Green	A
Aviation fuel crew	Purple	Purple	F
Cargo handling personnel	White	Green	"Supply"/"POSTAL" as appropriate
Catapult and arresting gear officers	Green	Yellow	Billet title
Catapult crew	Green	Green	C
Catapult/AG QA	Green	White	ALRE QA
Catapult safety observer (ICCS)	Green	(Note 6)	Billet title
Crash and salvage crews	Red	Red	Crash/Salvage
Elevator operators	White	Blue	E
Explosive ordnance disposal	Red	Red	"EOD" in black
GSE troubleshooter	Green	Green	"GSE"
Helicopter LSE	Red	Green	H
Helicopter plane captain	Red	Brown	H
Hook runner	Green	Green	A
JBD safety observer	Green	Green/White	JBD Safety
Landing signal officer	None	White	LSO
Leading petty officers:			
Line	Green	Brown	Squadron designator and "Line CPO"
Maintenance	Green	Green	Squadron designator plus "Maint. CPO"
Quality assurance	Brown	White	Squadron designator and "QA"
Squadron plane inspector	Green	White	Black and white checkerboard pattern and squadron designator
LOX crew	White	White	LOX
Maintenance crews	Green	Green	Black stripe and squadron designator
Medical	White	White	Red Cross
Messengers and telephone talkers	White	Blue	T
Ordnance	Red	Red	3-Inch black stripe and squadron designator/ship's billet title
Ordnance QA	White	(Note 8)	Squadron designator and "ORDNANCE QA/SAFETY"

NAVAIR 00-80T-120

PERSONNEL	HELMET	JERSEY/ FLOATATION VEST	SYMBOLS, FRONT AND BACK
Photographers	Green	Green	P
Plane captains	Brown	Brown	Squadron designator
Safety	White	White	"SAFETY"
Supply VERTREP coordinator	White	Green	"SUPPLY COORDINATOR"
Tractor driver	Blue	Blue	Tractor
Tractor King	Blue	(Note 7)	TK
Transfer officer	White	White	"TRANSFER OFFICER"

Note

1. Only personnel charged with the actual control or direction of aircraft movements on the flight or hangar decks shall wear yellow jerseys. Personnel in charge of a detail, such as aviation fuels, ordnance, and maintenance, shall wear a helmet and jersey corresponding in color to that of their respective detail and with their billet title on the jersey and floatation vest.
2. Helmets for all personnel shall be marked with a 6-inch square (or equivalent) of white reflective tape on the back shell and a 3-inch by 6-inch (or equivalent) of white reflective tape on the front shell. Landing signal officers are not required to wear helmets or sound attenuators when engaged in aircraft control. Helmets shall have a 2-inch piece of velcro on the left side of the front shell and velcro on the survival light.
3. Three reflective international orange stripes, 1-inch wide, evenly spaced, running fore and aft on top of the white reflective tape.
 - a. All air department officers
 - b. Air department chief petty officers and leading petty officers
 - c. EOD team members
 - d. All ordnance officers and gunners
 - e. Ordnance handling officer and gunner.
4. Helmets for all personnel who have not completed flight deck observer qualification shall be marked (front and rear) with a "T" using 1-inch wide blue reflective tape over the existing reflective tape (front minimum 2-inch tall, rear minimum 3-inch tall lettering).
5. Helmets for all aircraft directors under instruction shall be marked (front and rear) with a "UI" using 1-inch wide blue reflective tape evenly spaced over the existing reflective tape (front minimum 2-inch tall, rear minimum 3-inch tall lettering).
6. ICCS green jersey/yellow floatation vest.
7. Yellow jersey/blue floatation vest.
8. White jersey/red floatation vest.
9. Only authorized, all leather, steel-toe boots shall be worn on the flight deck.

NAVAIR 00-80T-120

References for carrier flight-deck qualification:

- NA 00-80R-14, NATOPS, *U.S. Navy Aircraft Firefighting and Rescue Manual*
- NA 00-80R-19, NATOPS, *U.S. Navy Aircraft Crash and Salvage Operations Manual (Afloat)*
- NA 00-80T-113, NATOPS, *Aircraft Signals Manual*
- NA 00-80T-120, NATOPS, *CV Flight/Hangar Deck Manual*
- NA 17-1-537, *Aircraft Securing and Handling Procedures*
- NA 19-25-574, *Firefighting Vehicle A/S32P-25*
- NAWC Aircraft Division Lakehurst-4.8.10.3 (Rev. L), *Visual Landing Aids General Service Bulletin No. 8*
- NavEdTras for Damage Controlman 3 & 2, Airman, Basic Military Requirements, Interior Communication Electrician, Vol 1, Aviation Ordnancemen 3, 2 & 1, and Aviation Boatswain's Mate H 3 & 2
- NWP 3-04.1, *Helicopter Operating Procedures for Air-Capable Ships*
- NWP 3-50.1 (Rev. A), *Naval Search and Rescue (SAR) Manual Air-Capable Ship, Aviation-Facilities Bulletin No. 1H*
- OpNavInst 3500.39, *Operational Risk Management*
- OpNavInst 5100.19C, *Navy Occupational Safety and Health (NavOSH) Program Manual for Forces Afloat*
- Ship's Information Book

ORM 5-Step Process

1. Identify Hazards
 - a. Look at the hazards on the flight deck (intakes, exhaust, "head knockers," open deckwells, etc.).
 - b. Look for what could cause a hazard (planes turning and taxiing, people too close to deck edge, sharp objects, trip hazards, etc.).
2. Assess Hazards
 - a. What degree of risk exists: critical (death), serious (severe injury), moderate (minor injury), or minor (minimal impact)?
 - b. What probability exists: likely, probable, may occur, or unlikely?
3. Make Risk Decisions
 - a. Develop controls to minimize risk (steps to take to avoid injury, death or damage to aircraft and equipment).
 - b. Determine residual risk (reassess risk with your controls).
 - c. Make risk decision.
4. Implement Controls
 - a. Use established controls (follow your plan to reduce risk).
 - b. Communicate these controls to the lowest level: Who will do what, where and by when.
5. Supervise
 - a. Enforce standards and controls
 - b. Remain alert for changes and the need to modify controls.
 - c. Take corrective action when necessary.

The Safety Environment...



This section describes the knowledge, equipment and procedures that control risks and prevent mishaps.

FOD (Foreign Object Damage) Walkdowns

These are held before, during and after flight operations. Squadron, air wing, and ship's company air-department personnel participate by forming a line across the width of the flight deck,



and they slowly walk from bow to stern. The purpose is to search out loose objects on the deck that, if ingested into aircraft engines, would result in costly repairs. Flight-deck crews have been seriously injured by FOD that has been blown by jet blast. FOD always is a major safety concern on all aircraft carriers.

Flight-Deck Fire and Firefighting Symbols

“Fire, fire, fire on the flight deck!” Those sobering words and your immediate response can

make the difference between minor damage and a catastrophe or between injury and death. Keep this fact in mind because you may be the first person on the scene. Will you be prepared? The firefighting-agent symbols illustrated below are painted at various locations on the wheel-stop coaming on the edges of the flight deck. You'll see other firefighting-apparatus symbols on the island structure. Study these symbols when you walk the flight deck. Get familiar with the location, operating procedures, and intended purpose of all flight-deck firefighting equipment.

AFFF Station Markings

An 18-inch-wide green strip is painted up and over the deck-edge wheel-stop coaming. A white, 3-inch-high “AFFF” is painted in the center of the stripe. At locations where coaming is not installed, the stowage location is marked by a green, 18-inch square painted on the flight deck with white

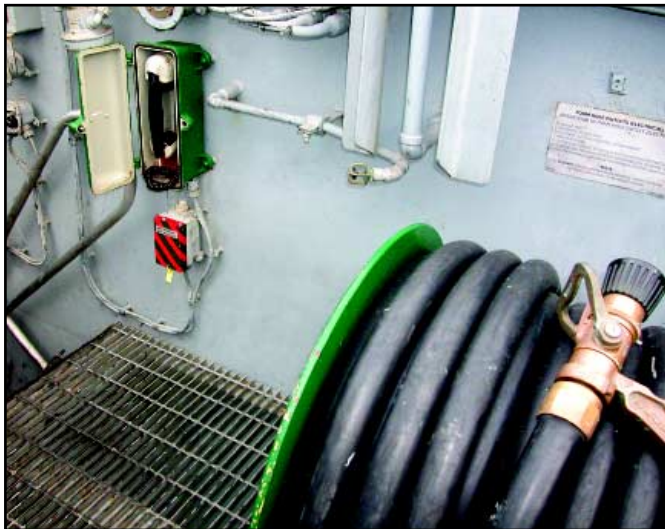


“AFFF” letters painted in the center of the square.

AFFF is the primary extinguishing agent for aircraft fires on all Navy air-capable ships. Operating a typical flight-deck AFFF station is simple.

- First – Locate the activation button and the telephone (they are painted green).
- Second – Make sure the firefighting crew has pulled out all the fire hose from the storage box.

- Third – Push the button. This will activate the system and charge the hose. Note: Hard, non-collapsible hoses may be charged while on the hose reel.



- Fourth – Get on the telephone. This is how you will communicate with the pumping station that supplies the agent to the AFFF station, and how you talk with damage control central. Talk to the people at the pumping station if you have any problems or when it's time to secure the AFFF station. Note: You do not have to use the telephone before turning on the hose.

CO₂ Bottle Stowage Marking

A red, 12-inch-wide stripe is painted up and over the deck-edge wheel-stop coaming, and a white, 3-inch “CO₂” designation is painted in the center of three stripes. Where coaming is not installed, the deck edge is



marked with a white 18-inch-diameter circle with a red, 5-inch-high “CO₂” designation centered in the circle.

Purple K Powder (PKP) Stowage Marking

A red, 12-inch-wide stripe is painted up and over the deck-edge wheel-stop coaming, and a white three-inch high “PKP” painted on the center of the stripe. Where coaming is not installed, a white 18-inch-diameter circle is painted on the flight deck and



marks the stowage location. A red, five-inch high “PKP” designation is centered in the circle.

Salt-Water Station Marking

A red, 18-inch-wide strip is painted up and over the deck-edge wheel-stop coaming, and a yellow, 3-inch-high “W” painted in the center. Where coaming is not installed, the station is marked by a red triangle, 18-inches per side, painted on the flight deck. A yellow “W” is centered inside the triangle.



HALON Marking

The HALON agent is found only in the P-25 mobile firefighting and rescue vehicle.



Flight-Deck Basics:



1. Wear all six items of flight-deck gear:

- Flight-deck helmet (cranial) which consists of a front-plate shell with (at a minimum) a 3-inch by 6-inch white reflective strip on front and a back plate with a 6-inch by 6-inch white reflective strip. Make sure the shells are connected to the liner and the sound attenuators.
- Use double hearing protection.
- Goggles: Always use clean, clear lenses. Make sure the goggles are attached to cranial. Tinted lenses are used for day operations only.

- MK-1 float coat: The fabric should be in good condition, the jacket must stay buttoned. Every day, check its overall condition, make sure the inflator assembly, light, and whistle all work. Ensure daily PMS is completed.
 - Flight-deck boots: Must be steel-toed, with non-slip soles, and without any holes.
 - Flight-deck jersey: Must be the right color and long sleeved. Keep the sleeves rolled down.
 - Gloves: Always wear gloves in good condition.
2. Keep your eye on anyone you think might be setting themselves up for an accident. Help to avoid that potential danger.
 3. Lend a hand when an aircraft “push back” is called away. Caution – watch wheels, intakes and ordnance.
 4. Clean up immediately any mess under and around aircraft. This will help stop foreign-object damage (FOD) and will help keep the deck skid-proof.
 5. Take part in all flight-deck drills and FOD walkdowns.
 6. Seek out a yellowshirt and ask for assistance if you are unsure of a situation.
 7. Avoid walking in front of jet intakes or behind jet exhaust, especially if you aren’t sure whether the aircraft’s engines are turning. This is very important at night.
 8. Assume an aircraft’s engines are turning if you see someone in the cockpit.
 9. Avoid an aircraft’s moveable surfaces while the engines are turning.
 10. Always enter the flight deck from behind the starboard side of the island.
 11. Know your absolute limits. Fatigue is deadly.
 12. Stand clear of safe-park and safe-shot lines when flight operations are in progress.
 13. Notify flight-deck control immediately if you misplace a tool, wand or object.
 14. Know the plan for the cycle. Know the flow of traffic by watching aircraft directors.



1. Don't walk onto the deck during flight operations without wearing proper flight-deck gear.
2. Don't wear jewelry such as neck chains or bracelets while on the flight deck or in the work-center.
3. Don't have sleeves or goggles up during flight operations.
4. Don't walk close to aircraft with engines turning. Stay at least 25 feet away from all intakes and propellers. Avoid jet exhaust by at least 150 feet when possible.
5. Don't walk through propeller arcs even if the prop is not turning. Always walk around them.
6. Don't work on or pass beneath a moving aircraft. Do not pass beneath drop-tanks or air-refueling stores on parked aircraft.
7. Don't place yourself on the outboard side of a taxiing aircraft or one being towed to or from the bow.
8. Don't walk onto the flight deck via the bow catwalks during launches or via the port catwalk during recoveries.
9. Don't turn your back to the landing area during recovery.
10. Don't cross behind jet-blast deflectors while

aircraft are at high-power settings and ready for catapult launch.

11. Don't sit on the flight deck.
12. Don't try to stand up if blown down by jet exhaust. Grab a pad eye or any immovable object, and hold on.
13. Don't walk in front of aircraft while arming or dearming forward-firing ordnance.
14. Don't place yourself near arresting-gear wires during aircraft recovery or when gear maintenance is being done.
15. Don't leave power cables lying on deck. Always stow them.
16. Don't stand in front of mobile firefighting equipment.
17. Don't cross elevator stanchions while they are raised.
18. Don't think, "It can't happen to me." That attitude has been disproved many times over the years.
19. Don't stand in front of a jet-starting unit's (huffer's) exhaust.
20. Don't loiter on the flight deck. If you do not have work to do, stay below.
21. Don't walk under tailhooks.

Real-Life, Flight-Deck Stories

Flight Deck Awareness describes an aircraft carrier's workplace, people and hazards. You know now that it can be a dangerous place for someone who loses situational awareness. This section will give you details of tragic incidents that hurt flight-deck personnel. The purpose is to show you how bad things can get for a clueless, careless or brazen Sailor.

Scout Maintainer Blown Overboard (Mech, Fall 2001)



An airman—a squadron greenshirt—was working on the flight deck and went to help a petty officer who was having trouble pulling a chock from the port mainmount. The port engine was turning as the Sailor approached the tire. The petty officer squatted behind the mainmount, but suddenly backed into the airman, who started to stand. The exhaust from the Hoover blew the shocked Sailor off his feet, over the nets, and toward the ocean.

No one on the flight deck noticed the flying greenshirt, but a chief on a sponson did, and he called away a man overboard. A helo was dispatched, and the lucky Sailor was in the squadron's ready room less than an hour after the incident.

Four Sailors were reported as being blown overboard or into nets in the past year. It can happen to you.

Expect the Unexpected (*Mech*, Spring 2003)

A C-2 carrying passengers to an aircraft carrier veered out of the landing area and into the port catwalk. No one was hurt seriously, but the incident does show that anything can happen and usually when you least expect it.

The flight-deck crew sprang into action, making sure the engines were shut down,



securing the aircraft with extra tie-down chains, and safely removing the passengers.



The aircraft then was removed from the catwalk. The actions of cool-headed flight-



deck crew members kept the incident from becoming worse.

Why Solid Matter Matters (*Mech*, Spring 2002)

Darting under an aircraft, a Sailor hit an antenna and cut his head. The wound required 21 staples to close. He wasn't wearing a cranial.

This incident happened on a P-3, but the lesson learned applies to anyone who works on the flight deck. Wear a cranial anytime you are around an aircraft; you never know when a simple job will turn into a painful experience.



These are just a few samples of what can go wrong on an otherwise perfect day. None of these Sailors ever thought they would make the type of mistakes that led to their problems. No one is infallible, of course, which is why working on the flight deck includes so many checks and backups.

The air ops branch and media department at the Naval Safety Center produced this guide to provide the fleet with a tool to improve awareness, to increase readiness, and to save lives.

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If you need more copies of this guide, download or view the web version at www.safetycenter.navy.mil or call the Naval Safety Center at 757-444-3520 (DSN 564) Ext. 7272 or Ext. 7256.

Aviation is not inherently dangerous,



but to an even greater degree than the sea,



it is terribly unforgiving of any carelessness, incapacity or neglect.

-Captain A.G. Lamplugh

