



Revolution in Naval Aviation

By RAdm. John Nathman
Director, Air Warfare



As we approach the end of the 20th century, we can look back with great pride at the dominant role that Naval Aviation has played in winning wars, deterring aggression and preserving peace around the world. When Eugene Ely flew a Curtiss biplane off the bow of the cruiser *Birmingham* in 1910, it marked the beginning of a revolution in naval warfare. The revolution began quietly, but new tactics and technological advances came quickly. By the time the war in the Pacific ended in 1945, the rules for waging war at sea or

The F/A-18E/F *Super Hornet* will provide air power for the revolution in strike warfare.

from the sea had been forever changed.

During the second half of this century, the pace of technological advancement has accelerated dramatically, and Naval Aviation has changed with it, maintaining its unique status as "the force of choice" for our nation's defense. When it comes to preserving stabili-

ty in today's unstable world, the only thing that can replace a carrier battle group or amphibious readiness group is another carrier battle group or amphibious readiness group.

We stand today on the threshold of a new chapter in our brand of warfare, and our vision for the future places Naval Aviation at the forefront. There are really two separate revolutions, both of which require Naval Aviation to lead. The first is in strike warfare. With the all-precision air wing already in place, this revolution is well underway.

To see the impact of this revolu-

tion, compare today's capability to that of the 1980s air wing. Then, one A-6E *Intruder* squadron and two A-7E *Corsair II* squadrons for the strike mission were complemented by two F-14 *Tomcat* squadrons and one S-3A *Viking*, EA-6B *Prowler* and E-2C *Hawkeye* squadron each for fleet defense. Although the awesome firepower possessed by that team was unparalleled in its day, it typically required around-the-clock strikes to take out high-priority targets, sometimes requiring days of repeated pounding that increased risk to aircraft and aircrew.

Today's air wing consists of three squadrons of F/A-18C *Hornets* and one squadron each of LANTIRN [low-altitude navigation and targeting infrared for night]-equipped F-14 fighters, EA-6Bs for electronic protection/attack, E-2Cs and S-3Bs for surveillance, and SH-60 *Seahawk* armed helicopters for combat search and rescue. This formidable mix of aircraft combined with our transition to *Nimitz*-class nuclear carriers brings a level of sortie generation, precision and lethality unheard of in the past. The same number of strike aircraft can fly twice the number of sorties and strike roughly three times the number of targets as an air wing of a decade ago. We have become so precise that we no longer strike general targets; we strike "aimpoints," precise locations within a given target area. As a result, today's air wing, including coordinated strike assets from the battle group, has moved from being an "enabling" force to a dominant force in expeditionary operations.

This revolution in strike warfare will be in full force when new weapon systems currently in production hit the fleet in the next several years. Led by the F/A-18E/F *Super Hornet*, and incorporating inertial/global positioning system-guided weaponry—such as the Joint Stand-Off Weapon and the Joint Direct Attack Munition—this strike force will provide a quantum improvement in precision and lethality over today's highly capable air wing. As these next-generation aircraft and weapons are in place, Naval Aviation's leading role will make naval expeditionary forces the decisive force in theater.

Looking further down the road, we envision Naval Aviation enabling the coming revolution of network-centric warfare. This concept is based on the premise that a naval force is more powerful than the sum of its individual ships, planes and weapons. Building on the coming explosion in information technology, network-centric warfare is all about getting the right information to the right warfighter at the right time. We will kill enemy targets in many cases by direct sensor-to-weapon and sensor-to-shooter connectivity by passing targeting-quality data.

The backbone of this new revolution will be Naval Aviation. We will provide the sustainment of the striking power as well as the cohesion and coherence of tactical data to make the right warfighting decisions. Naval Aviation will provide the right assets to lead the naval expeditionary force of the future.

But no warfighting concept will work without Naval Aviation's most important asset: the dedicated aviators and maintainers in our air wings, carriers, helicopter detachments and maritime squadrons, and those who train our future warriors. No matter where you find Naval Aviation professionals, you will find them leading not only in aviation, but throughout the Navy.

NAVAL AVIATION news

RAdm. John Nathman
Director, Air Warfare

Published by the Naval Historical Center under the
auspices of the Chief of Naval Operations

Dr. William S. Dudley
Director, Naval Historical Center

Staff

Cdr. Jim Carlton	Editor
Sandy Russell	Managing Editor
Morgan I. Wilbur	Art Director
Wendy Karppi	Associate Editor
JO2 Joshua M. Hudson	Assistant Editor

Associates

Harold Andrews	Technical Advisor
Cdr. Peter Mersky, USNR (Ret.)	Book Review Editor
Capt. Ted Wilbur, USNR (Ret.)	Contributing Artist
Capt. R. Rausa, USNR (Ret.)	Contributing Editor
LCdr. Richard R. Burgess, USN (Ret.)	Contributing Editor

Contributions Welcome

NA News considers for publication unsolicited manuscripts, photo essays, artwork and general news about aircraft, organizations, history and/or human endeavors which are the core of Naval Aviation. All military contributors should forward articles about their commands only after internal security review and with the permission of the commanding officer. Please **do not send a diskette** unless requested by *NA News*. For guidelines on submissions, contact the Managing Editor at DSN 288-4407 or (202) 433-4407; FAX (202) 433-2343.

***Naval Aviation News* is on-line as part of the Naval Historical Center home page. Look for the current issue at <http://www.history.navy.mil>.**

Email us at nanews@nhc.navy.mil.

Personal Subscriptions: To order this periodical for one year, cite "*Naval Aviation News* (NAVN)" and **mail** a check or money order for \$14.00 (\$17.50 foreign) or provide VISA or MasterCard number and expiration date **directly to:** Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954. Telephone credit card orders can be made to (202) 512-1800 from 8 a.m. to 4 p.m. Eastern time. Credit card orders can be faxed 24 hours a day to (202) 512-2250.

Naval Aviation News (USPS 323-310; ISSN 0028-1417) is published bimonthly for the Chief of Naval Operations by the Naval Air Systems Command and the Naval Historical Center. Editorial offices are located in Bldg. 157-1 Washington Navy Yard, 901 M Street SE, Washington, DC 20374-5059. Periodicals postage is paid at Washington, DC, and additional mailing offices. The Secretary of the Navy has determined that this publication is necessary in the transaction of business required by law. The use of a name of any specific manufacturer, commercial product, commodity or service in this publication does not imply endorsement by the Navy. Photographs are U.S. Navy unless otherwise credited.

POSTMASTER: Send address changes to *Naval Aviation News*, 901 M Street SE, Bldg. 157-1, Washington, DC 20374-5059.