




# AMS CHRONICLE

## IPMS DENVER ROB WOLF CHAPTER JANUARY 2019

	<u>2019 OFFICERS</u>	<u>2019 OFFICERS EMAILS</u>																					
	<table> <tr><td>President</td><td>Bob Pridemore</td></tr> <tr><td>Vice President</td><td>John Taylor</td></tr> <tr><td>Secretary</td><td>Matt Oursler</td></tr> <tr><td>Chapter Contact</td><td>Cliff Davis</td></tr> <tr><td>Treasurer</td><td>Bob Nixon</td></tr> <tr><td>Contest Chairman</td><td>Eric Cain</td></tr> <tr><td>Newsletter Editor</td><td>Wayne Cassell</td></tr> </table>	President	Bob Pridemore	Vice President	John Taylor	Secretary	Matt Oursler	Chapter Contact	Cliff Davis	Treasurer	Bob Nixon	Contest Chairman	Eric Cain	Newsletter Editor	Wayne Cassell	<table> <tr><td><a href="mailto:Bob1.pride@gmail.com">Bob1.pride@gmail.com</a></td></tr> <tr><td><a href="mailto:Jt737driver@gmail.com">Jt737driver@gmail.com</a></td></tr> <tr><td><a href="mailto:matthewoursler@hotmail.com">matthewoursler@hotmail.com</a></td></tr> <tr><td><a href="mailto:ctpmdavis@comcast.net">ctpmdavis@comcast.net</a></td></tr> <tr><td><a href="mailto:Bobnixden@comcast.net">Bobnixden@comcast.net</a></td></tr> <tr><td><a href="mailto:Earthball4000@hotmail.com">Earthball4000@hotmail.com</a></td></tr> <tr><td><a href="mailto:mwcassell@comcast.net">mwcassell@comcast.net</a></td></tr> </table>	<a href="mailto:Bob1.pride@gmail.com">Bob1.pride@gmail.com</a>	<a href="mailto:Jt737driver@gmail.com">Jt737driver@gmail.com</a>	<a href="mailto:matthewoursler@hotmail.com">matthewoursler@hotmail.com</a>	<a href="mailto:ctpmdavis@comcast.net">ctpmdavis@comcast.net</a>	<a href="mailto:Bobnixden@comcast.net">Bobnixden@comcast.net</a>	<a href="mailto:Earthball4000@hotmail.com">Earthball4000@hotmail.com</a>	<a href="mailto:mwcassell@comcast.net">mwcassell@comcast.net</a>
President	Bob Pridemore																						
Vice President	John Taylor																						
Secretary	Matt Oursler																						
Chapter Contact	Cliff Davis																						
Treasurer	Bob Nixon																						
Contest Chairman	Eric Cain																						
Newsletter Editor	Wayne Cassell																						
<a href="mailto:Bob1.pride@gmail.com">Bob1.pride@gmail.com</a>																							
<a href="mailto:Jt737driver@gmail.com">Jt737driver@gmail.com</a>																							
<a href="mailto:matthewoursler@hotmail.com">matthewoursler@hotmail.com</a>																							
<a href="mailto:ctpmdavis@comcast.net">ctpmdavis@comcast.net</a>																							
<a href="mailto:Bobnixden@comcast.net">Bobnixden@comcast.net</a>																							
<a href="mailto:Earthball4000@hotmail.com">Earthball4000@hotmail.com</a>																							
<a href="mailto:mwcassell@comcast.net">mwcassell@comcast.net</a>																							
<p><b><u>NEXT MEETING:</u></b> 06 FEBRUARY 2019 1900</p>	<p><b><u>At Least a Dozen</u></b></p>	<p><b><u>Any subject with engine(s) of 12 or more cylinders.</u></b> <b><u>2 engines with 6 cylinders does not count.</u></b></p>																					

### EDITOR RAMBLINGS FROM THE BUNKER

This has been interesting. The first week of class got canceled due to the weather and we are not extending the term so I have condensed 2 weeks of my Russian Civil War class into one. Given I condensed 16 hours into 1 hour for the club presentation, one might think this would be easier than it was. OTOH I now have good start on a one hour club presentation on the Russian Revolution, or was it a coup?

Puttering along on model building. Making rolled canvas for the top of my Holt 75 tractor, then attaching all the brackets and mounts and it is done. Probably make a small base. Next up, along with shelf queens to finish, is a French 6x6 for the club NAFTA contest in May. Might see a Canadian 6x6 too.

This may interest some folks.

<https://www.migjimenez.com/en/content/7-downloads-ammo-of-mig-jimenez>

Nikto ne Zabyt  
Nichto ne Zabyto

## ...2019 MONTHLY CONTEST THEMES

Month	Theme	Description
January	Uncharted Waters	Subjects representing the first use of a design concept or technology
<b>February</b>	<b><u>At Least a Dozen</u></b>	<b><u>Any subject with engine(s) of 12 or more cylinders.</u></b> <b><u>2 engines with 6 cylinders does not count.</u></b>
March	Twins	Any subject with 2 major design elements. Examples: F-82 Twin Mustang, ZU-23 twin gun anti-aircraft.
April	Club Kit Auction	Get rid of your trash and buy my treasure!
May	Club contest: Special Theme: NAFTA  Special Category: Grab Bag	Theme: Any Canadian or Mexican subject. May be manufactured in either country or in national markings.  Category: Entries from the December Grab Bag Exchange
June	Recon	Any subject specifically designed or used for reconnaissance
July	The Eagle Has Landed	In honor of the 50 year anniversary of the moon landings, any real space subject
August	In Memoriam	Remembering the departed through kits or subjects from departed members / friends / family
September	Worst Kit Ever!	The worst kit you have tried to build, finished or not. <b>Must be at least 50% built</b> + must explain reason why it's the worst kit
October	Tank Killers	Any subject with the primary role of destroying tanks, <b>but not a tank itself</b> . A/C designed with a primary anti-tank mission.
November	Monochrome	Any subject where the majority of the color scheme is black and/or white.
December	Cut Throat Gift Exchange	It's better to give than receive, but even better to steal what someone was given!

## JANUARY 2019 CONTEST



Meng ME-163  
John Trueblood

### Uncharted Waters

Subjects representing the first use of a design concept or technology



Special Hobby V-173  
John Trueblood



Monogram  
Dave Bathke



Dave Bathke



Chematic  
Dave Bathke



Heller  
Dave Bathke



Hobby Boss  
Dave Bathke



Promolite Resin 1955 Pontiac Star Chief  
Henry Jackson



Hasagawa XF-31  
Bob Nixon



Eduard HE-280  
Brian Hatak



Trumpeter JGSDF Combat Maneuver Vehicle  
Wayne Cassell



Hasagawa F-104 Red Baron  
Neal Standard



Mini P-51  
Bob Nixon



Airfix P-40 Pearl Harbor  
Brian Hatak



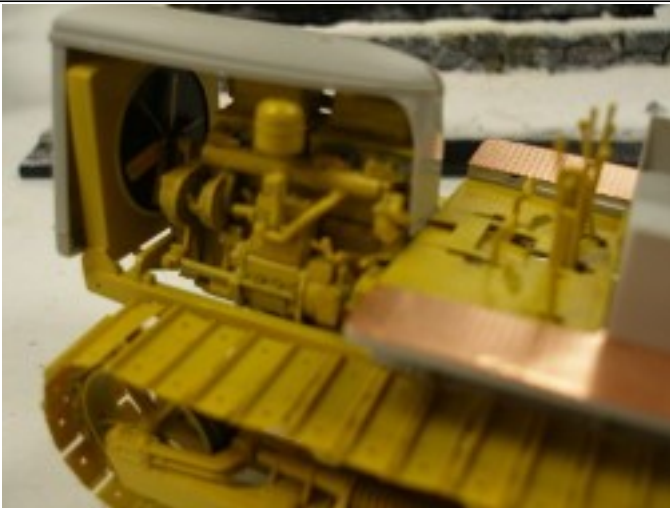
Dragon M-65 Atomic Cannon  
Brian Hatak



Dragon M-65 Atomic Cannon  
Brian Hatak



Dragon M-65 Atomic Cannon  
Brian Hatak



Mirror Models Cat D-7  
Dan Gallegos



Mirror Models Cat D-7  
Dan Gallegos



Tamiya Kettenrad and BMW R-75  
Dan Gallegos



Roden IS-3  
Matt Levesque



Zvezda T-72  
Mike McTique



Hasagawa CVE-73 Gambier Bay  
Bob Pridemore



Hasagawa CVE-73 Gambier Bay  
Bob Pridemore



Meng Watoons Pz-IIIIN  
Wayne Cassell



Meng Watoons King Tiger  
Wayne Cassell



## 'FULL METAL JACKET' ACTOR R. LEE ERMEY LAID TO REST AT ARLINGTON NATIONAL CEMETERY

By [Kathleen Joyce](#) | [Fox News](#)



[R. Lee Ermey](#), a former [Marine Corps](#) drill instructor best known for his role in Stanley Kubrick's film "Full Metal Jacket," was buried at Arlington National Cemetery Friday with full military honors, the U.S. Naval Institute said.

Ermey died on April 15, 2018, due to complications from pneumonia. He was 74.



R. Lee Ermey was laid to rest at Arlington National Cemetery on Friday, Jan. 18, 2019. (USNII)

Before playing his famous role as the sadistic Gunnery Sgt. Hartman in the 1987 film, Ermey enlisted in the Marine Corps in 1961. The Kansas native served for 11 years, including 14 months in Vietnam, before he was medically discharged in 1972 due to injuries.

Ermey had small roles in "Apocalypse Now" and "The Boys in Company C" before he got his big break in "Full Metal Jacket." Ermey was originally supposed to be a technical adviser, but Kubrick offered him the role of Gunnery Sgt. Hartman after seeing a demo tape of the actor railing at extras while tennis balls flew at him.

"Full Metal Jacket" earned Ermey a Golden Globe nomination, as well as a career playing authority figures -- from Mayor Tilman in 1988's "Mississippi Burning" to little green army man Sarge in the more family-friendly "Toy Story."

Ermey appeared in a number of television shows and films and also hosted the History Channel series "Mail Call" and "Lock N' Load with R. Lee Ermey."

He was an outspoken supporter of the military.

"I was in during the Vietnam era, so we weren't widely respected at all," Ermey told the [U.S. Naval Institute in 2015](#). "Matter of fact that was the era when, when you came back from war, they spit on you. That was the hippie generation though. There's still some problems, still some situations, and there's still some people in this world who just refuse to support our beloved military."



## MODELMAKING: HOW THIS HOBBY MAKES YOU SMARTER

**The absorbing fun of making scale models improves mental health, too.**

by Phil Scott, [Live & Learn](#), THURSDAY, October 16, 2008

**RETIRED TEACHER** Kevin Gray first fell in love with making scale models in fifth grade. He had had his tonsils removed, and his dad, knowing how fanatical his son had become about airplanes since a local pilot had taken him flying a few months before, gave him two plastic model airplane kits. One was an Albatross D.III like one that World War I ace Manfred von Richthofen, a.k.a. the Red Baron, flew before he switched to his famous triplane; the other was a Nieuport 11, like leading

French ace Georges Guynemer piloted. As soon as Gray was well enough to sit, he assembled the Albatross and then the Nieuport, and then he read and reread the specifications of the actual airplanes printed on the instructions. He also had fun gluing his fingers together over and over with modeling cement.

Over the next two years he would spend every penny on model airplanes until he had more than 70 sitting on shelves in his bedroom, each created in pretty much the same way: he painstakingly assembled it by following the instructions, then memorized the facts and statistics about each one printed on the instruction sheet, and sometimes still glued his fingers together with the crusty cement.

“Then I discovered girls,” he says. That was the end of his modeling days. Until recently. Retired last year from teaching high school English and journalism in a small Kansas town, Gray received a model of the Wright Flyer from his wife Diane. Not much had changed in the world of modeling: same molded plastic pieces, same assembly instructions, same historical description to read and reread while pieces of the model dried.

Then came the moment that recovering addicts pray never happens: He began lurking the aisles of hobby stores, searching for ever more obscure historical models, then buying them and building them at the desk where he once graded papers. He also noticed side effects. “Building models helps my hand-eye coordination, and following instructions and reading specifications sharpens my mental powers,” he says.

“Scale modeling is an excellent hobby,” agrees Andrea M. Macari, PhD, assistant professor of psychology at Suffolk County Community College in Long Island, NY. “Not only does the activity provide much-needed leisure, which is beneficial in alleviating anxiety and depression, but it also enhances certain cognitive skills such as concentration, visual-motor skills, and executive functions [processes the brain uses to plan, organize, strategize, and pay attention to and remember details].” Macari explains that the skills used in scale modeling are the same ones that often decline with age. “So by practicing scale modeling, your actions are mitigating any decline of those skills,” she adds.

**Our Brains Love the Work.** According to Professor Kelly G. Lambert of Randolph-Macon College in Ashland, VA, the brain is programmed to derive pleasure and satisfaction when efforts produce something “tangible, visible, and—this is extremely important—meaningful in gaining the resources necessary for survival.” To find a correlation between depression and physical efforts, she took two groups of rats and trained one group to dig for treats (the “worker rats”) and the other group to expect the treats in a lump sum, despite the effort they exerted (the “trust fund rats”). Next, she placed a treat inside a clear plastic ball, which couldn’t be opened no matter how hard the rat tried. Lambert found that the worker rats spent 60 percent more time trying to reach the treat than the trust fund rats did. The moral of the story: The workers were more confident they would succeed than the trust fund rats. And there’s more.

“A lot of our brain is devoted to movement,” she says. “So hobbies and activities that use our hands are engaging in more of our brain’s real estate. Gardening, building model airplanes, and knitting could be the key to mental health because they activate a lot of our brain.”

She adds that people born prior to 1950 are ten times less likely to develop depression in their lifetimes than people born after. “What has changed? Our lifestyles. Technological advances mean that we have stopped doing a lot of basic work,” she says, adding, “I think building model airplanes could be very good for us.”

**Getting into the History, Too.** There’s also the educational component, says Jack Kennedy, president of the International Plastic Modelers’ Society (IPMS) and former host of a half-hour TV program, *Adventures in Scale Modeling*. “You have to learn a little historical background for

whatever you build," he says. "It piques your interest, and you do research in books for details." While he's working on a model of a B-57 bomber right now, Kennedy's focus is building models of historical figures; in fact, he just completed a bust of Erwin Rommel, the German Field Marshall from World War II. Cars make popular models, and so do trains and ships. For Gray and Nick Filippone, a 59-year-old New York surgeon, it's airplanes. "It's fun to research the color scheme and markings and so forth," says Dr. Filippone, who prefers building World War II British warplanes. "I think it's well-established that keeping active mentally is very important," he adds. "This is one way to do that. Concentration is good for maintaining mental function. Like exercising the body, it's exercising the mind."

**The Social Aspect.** Kennedy's group, IPMS, has some 5,000 members across the nation, a majority of them 50 and older. "We have a lot of Korea vets, and we still have World War II veterans," he says. "It keeps motor skills in tune, and it also keeps people's minds going pretty well. We have a lot of doctors, too (their hand skills are excellent), airline pilots, military people One of my close friends is a CIA agent." They hold conventions at hotels, motels, school gymnasiums, and Elks halls across the nation; this year's annual national convention was held in Virginia Beach in August. They compete, too: In Virginia, two of Filippone's models placed. "We have a good time at these conventions," he says. "But then most of the people I hang out with outside the hospital are in the hobby."

*Phil Scott has written for Scientific American and New Scientist, and is the author of The Pioneers of Flight: A Documentary History, and The Shoulders of Giants: A History of Human Flight to 1919. Watch for new stories every Thursday in Live & Learn, NRTA's publication for the AARP educator community: Celebrating learning as a creative lifestyle.*

## OPERATION DAGUET

On 14 September 1990, Iraqi forces entered the residence of the French ambassador in Kuwait. In response French President [François Mitterrand](#) increased the number of troops and aircraft deploying to Saudi Arabia. Soon after, the French intervention is renamed "Opération Daguet" under the command of General [Michel Roquejeoffre](#). Additional French reinforcements arrived in December 1990 and January 1991.

The French ground forces contribution was the provisional [Division Daguet](#), which was drawn mostly from units of the [6th Light Armoured Division](#) (6 DLB), with additional units like the 4th Regiment of Dragoons from the [2nd Armoured Division](#), and units from the [French Foreign Legion](#). Division Daguet split its forces into two tactical groups for the actual ground war: Group West (Groupement ouest) and Group East (Groupement est). Initially, the French operated independently under national command and control, but coordinated closely with the Americans, Saudis and [CENTCOM](#). In January, the Division was placed under the tactical control of the US [XVIII Airborne Corps](#) and reinforced for the ground war with the following units from the [US Army](#): 2nd Brigade, [82nd Airborne Division](#), [18th Field Artillery Brigade](#) and 27th Engineer Battalion.

The role of the 6th French Light Armoured Division and the US XVIII Airborne Corps was to protect the theatre left flank and perhaps draw off Iraqi tactical and operational reserves.



The French operated on the left flank during Opération Daguet.

### Operations – ground phase

On 24 February 1991, the ground phase began. Reconnaissance units of the 6th French Light Armoured Division advanced into Iraq. Three hours later, the French main body attacked. The initial objective for the French was an airfield 90 miles (140 km) inside Iraq at As-Salman. Reinforced by the 325th Airborne Infantry Regiment<sup>[5]</sup> from the US [82nd Airborne Division](#), the French crossed the border unopposed and attacked north. The French then came across elements of the 45th Iraqi Mechanised Infantry Division. After a brief battle, supported by [French Army](#) missile-armed [Aérospatiale Gazelle](#) attack helicopters, they controlled the objective and captured 2,500 prisoners. By the end of the first day, the French 6th Light Armoured Division, supported by the 82nd Airborne Division had secured its objectives and continued the attack north, securing the highways from [Baghdad](#) to southern Iraq.

### Casualties

Nine French soldiers were killed during the operation, including two before the beginning of the conflict and five afterwards: a soldier was killed in a car accident in [Saudi Arabia](#) in November 1990, and a [pilot](#) one month later in the crash landing of his [Mirage F1](#), at the time of a reconnaissance mission in Saudi Arabia. During the conflict, two paratroopers of the [1st Marine Infantry Parachute Regiment](#), 1e RPM1a; [Sergeant](#) Schmitt and [Corporal-Chef](#) Éric Cordier were killed while clearing unexploded U.S. [submunitions](#) near [Al-Salman](#) on 26 February 1991. 33 others were wounded, including 22 slightly. After the conflict, eight soldiers of the 1st IR were wounded (including three seriously) on 12 March 1991, while going along the Texas road, close to Have-Salman. Two [Legionnaires](#) of the [6th Foreign Engineer Regiment](#) were killed in March and April near [Kuwait City](#), and three died in May, including two in car accidents.



French AMX-10 RCs during Operation Desert Shield.



An AMX-30 of the French 6th Light Armoured Division bivouacked near Al-Salman during Opération Daguet



Panhard ERC-90 Sagaie du 1er régiment de hussards parachutistes en Arabie saoudite durant l'opération Daguet.

**ED NOTE:** I have all versions of the Tiger Models AMX-10RC 6x6, the Meng AMX-30B2 and the Tiger Models ERC-90 (F1 LYNX) which is the export version. I am waiting for the F4 to come out. It had a different turret. With a different 90mm.

## THEY SHALL NOT GROW OLD



HISTORY

### Peter Jackson's Restored WWI Footage Underscores The Flaccidity Of Today's Culture

**ED NOTE: This is an excerpt discussing the film from the article. The rest of the article discusses the cultural comparisons between 1914 and today.**

<https://thefederalist.com/2019/01/10/peter-jacksons-restored-wwi-footage-underscores-flaccidity-todays-culture/>

excerpt

"We sleep soundly in our beds because rough men stand ready in the night to visit violence on those who would do us harm," Winston Churchill reportedly said. He knew a thing or two about combat as a young man, and as the leader of a great nation about facing annihilation as an old man. If Winston could only see us now. The contrast between those young people today who stand ready to protect us and those we protect has perhaps never been more stark...

**ED NOTE: I am aware of the controversy about who said it, Churchill or Orwell, and whether it is a direct quote or a sentiment.**

...The British offer an even clearer contrast between the rough men who have historically stood ready to protect us and modern, liberal man through two handy examples. First, the legendary British director and producer Peter Jackson has created an absolutely stunning new documentary that I hope every adult in the English-speaking world watches, called "[They Shall Not Grow Old.](#)" The film opened in theaters in the United States on December 27 but has been available in Britain for several months.

From the Imperial War Museum, Jackson obtained actual footage shot in World War I, much of which was reportedly previously unseen. He colorized the films, then used advanced computer-guided film techniques to splice in interstitial frames, transforming grainy, choppy, black-and-white original footage into smooth-flowing, color film that looks like it could have been shot by professionals today.



He also hired lip readers to determine what the soldiers were saying in the silent original footage, then dubbed in actors' voices to replicate the original dialogue. He used sound effects like horses' hooves clopping, wagons clanking, and artillery shells exploding to match what we see on-screen. The effect is breathtaking.

Imagine the impact the audience felt watching the black-and-white beginning of "The Wizard of Oz" transition to the colorized portion of the movie and you'll get a sense of the impact you feel watching original World War I combat footage transform into video that you might expect to see of combat operations taking place today in Afghanistan or Iraq.

Jackson reportedly took no fees for making this masterpiece, which restored 100 hours of original footage. Rather, he dedicated the documentary to his grandfather, who had fought in the British ranks during the war. It was truly a labor of love and he did his grandfather proud, to say the least. Perhaps my view is biased. I have a familial interest in the European wars of the twentieth century. My grandfather served in World War I (in the Austro-Hungarian army) and my father served in World War II (in the American army). I can appreciate Jackson's appreciation of the bravery of the men who fought in those wars, on all sides. He captures with amazing beauty, and at times gruesome clarity using modern cinematography, the form that bravery took, as he follows British soldiers from recruitment to training to combat to victory (or death).

Adding particular poignance to the work are the interviews of actual British veterans that Jackson also obtained from the war, narrating their experiences. The crystal-clear descriptions these remarkable souls offer of the patriotism, fear, misery, horrors, and exhilaration they experienced brings the documentary to life in a way that no other method could achieve in making these men relatable to the viewer.

## WWII JAPANESE AIRCRAFT WRECKS SALVAGED AT BALALAE

[December 28, 2018 Editor Warbird Restorations, Warbirds News 0](#)



This Mitsubishi G4M1 Betty bomber is one of several airframes being prepared for transport from Balalae Island in the Solomons. (photo by Michael Holmesby)

It has recently come to light that a number of significant Japanese aircraft wrecks are currently being disassembled for recovery in the South Pacific. Located at the old Imperial Japanese Navy airfield on Balalae Island, part of the Shortland Island Group in the western province of the Solomon Islands, the collection of airframes and components importantly includes two Mitsubishi G4M attack bombers, along with the rear fuselage of another example.

The G4M, better known in the west by its Allied code name, *Betty*, was a mainstay of the Imperial Japanese Navy's land-based aerial bombing fleet. They possessed incredible range, although this came with the significant sacrifice of armor, self-sealing fuel tanks and structural toughness. They served many purposes during the war, from medium altitude bomber to torpedo bomber, to transport, including their use as a launch platform for the rocket-propelled Yokosuka Ohka kamikaze planes. Famously, it was while flying in a Mitsubishi G4M that Admiral Isoroku Yamamoto, architect for the attack on Pearl Harbor, lost his life when U.S. Army Air Force P-38 Lightnings intercepted and shot him down on April 18th, 1943 — coincidentally as he was on his way to Balalae.



A wartime image of Mitsubishi G4Ms. Reportedly, Japanese pilots sometimes referred to them by the nickname 'Hamaki' (cigar) due to their tubular appearance. (photo via Wikipedia)



Parts of the Babo Island Betty when they were on show in a crash-scene diorama at the Planes of Fame Air Museum. (photo via Wikipedia)

There are currently no complete examples of the *Betty* in preservation in the world save for a rather fragile, belly-landed example (G4M1 Model 11 m/n 1280) recovered by Bruce Fenstermaker from Babo Airfield in Indonesia during 1991. This *Betty* was on display for many years at the **Planes of Fame Air Museum** in Chino, California. The **Flying Heritage & Combat Armor Museum** acquired this airframe in November, 2015, and it has been out of public view since that time.

The rarity of this significant aircraft type makes the recovery of the two, far more intact G4Ms on Balalae of great importance. According to **PacificWrecks.com**, these airframes are G4M1 Model 11 (m/n 2806) and G4M1 Model 11 (m/n 1800) with the rear fuselage coming from a so far unidentified early-model G4M1. Reportedly both No.2806 and No.1800 rolled off the line at Mitsubishi's Nagoya factory No.3 in Nagoya, Japan during May, 1943. 2806 served as tail code U-321 in the Imperial Japanese Navy with 705 Kokutai (air group). No.1800 is believed to have served with 702 Kokutai, although her tail code is so far unknown.



Balalae is a tiny island, being just a little over a square mile in land mass. Other than when it was run as a plantation during the first half of the 20th century, up through WWII, there has never been a permanent population on Balalae. The airfield, built mainly by British POWs (the survivors of whom the Japanese either bayoneted or beheaded before the war ended), is still maintained in good enough condition to allow tourist flights from Solomons Airlines Twin Otters to come in twice a week. Inhabitants of the surrounding, much larger islands come to Balalae via boat when needing air passage from the region. (image via Google Earth)



Google Earth View of the Shortland Island group, showing the tiny size of Balalae against the much larger Shortland Island.

When WWII ended, dozens of aircraft lay abandoned on Balalae. Given the island's remoteness, and lack of permanent human settlement, these aircraft remained, pretty much where they sat for decades until the late 1960s when warbird salvagers began surveying the aircraft for possible recovery. Canadian, Bob Diemert was the first in 1968, when he recovered some of the smaller types; a couple of Aichi D3A2 Val dive bombers, and three Mitsubishi A6M Zeros. Others have returned over the years, with a number of Zeros being among the types recovered in a 2007 effort. Now a decade on, the last of the major, relatively intact wrecks remaining on the island are being recovered.

The first rumors of the recovery came in April this year, and obviously stirred up quite a bit of **controversy in the Solomons** as many islanders are justifiably concerned about being taken advantage of – as has happened previously. There are strict rules regarding the export of war relics from the island archipelago, but from the reporting so far, it appears that the salvagers have been working with the government and the Solomon Islands National Museum to formally negotiate the release of these airframes. There is reportedly a **Memorandum of Understanding** which includes the refurbishment and return of two aircraft back to the Museum for display. Such agreements have occurred in the past, of course, but once something leaves the islands, enforcing the terms is very difficult to police....

Airframe disassembly began in August this year in the revetments where they had lain since the end of WWII. The recovery team had a pathway cut through the trees leading from the airfield down to the beach. They rigged up crudely fashioned sleds made from tree branches to haul items such as the wings, engines and fuselage sections to the shore for shipment off-island. The forward fuselage and center wing section for one of the Betty bombers had a pair of wheels attached to the landing gear legs so that it could be wheeled along. As of mid-October, everything was sitting by the water's edge awaiting the transport to the Solomon Islands major port at the nation's capital city, Honiara on Guadalcanal Island. Images of these artifacts were posted on Facebook a few

days ago by Australian, Michael Holmesby; full permission was obtained for re-using them here. We thank him for that privilege. He also uploaded some video of the site at Balalae, which might prove as interesting as the still images presented earlier...

As for their future, should an export permit be formally granted (as is expected), the airframes are likely heading to Australia to a well-known salvager/restorer who is reportedly involved in the recovery effort. Beyond that, it is too soon to say...

**Editorial:** It should be noted here that there is a great debate about recovering warbird wrecks from the South Pacific. The aircraft in this story have played a major role in Solomon Islands history. The nation also gains income from tourism, with wartime relics being a draw for visitors from across the globe. That being said, Balalae is well off the beaten path for all but the most adventurous of tourists, and there is risk of serious disease for those who do venture there. However, removing these wrecks without proper compensation to the people of the Solomon Islands would be entirely unethical. And there lies the rub. The intrinsic value of these airframes is hard to evaluate. They are priceless in terms of their historical importance, but that is virtually impossible to translate into dollars and cents. Ultimately, it is doubtful that any investor or museum would pay more than a small fraction of what a fully-restored example may command (due to the enormous costs involved in their restoration), but the value of these artifacts in terms of lost tourist dollars to the Solomons may prove greater than this.

From the other perspective, it is easy for many of us in the warbird community to argue that wrecks should all be salvaged, because they will only last a short while longer where they sit due to battering from the elements and vandalism, not to mention those notorious vultures who have shredded so much of what relics had remained for their scrap value. But simply recovering the wrecks for "restoration" can prove as fatal to the artifacts as leaving them where they lie unless measures are taken to conserve and preserve the original material – none of which would ever be sound enough for use in an airworthy restoration. Indeed, with modern 3D scanning techniques available to precisely measure parts electronically without fully disassembling them, there is a viable alternative to the traditional restoration methods where original material is so frequently sacrificed in the process of making patterns for what are essentially new-build airframes. Ideally, original structure could be preserved for static museum display, while data are taken regarding the dimensional details for the reconstruction of an all-new airframe that can still bear a historical identity. Some of the artifacts could then be returned to the islands where they were found and placed under cover in a museum. Even though this is economically viable, and would be of long term benefit to both the islanders and the preservation of historically important artifacts, it seems an unlikely outcome, sadly....

This debate is clearly far from done...

More pics and video

<http://warbirdsnews.com/warbirds-news/wwii-japanese-aircraft-wrecks-salvaged-at-balalae.html>

## INTRODUCING ISRAEL'S DEADLY DOLPHIN-CLASS SUBMARINE (ARMED WITH NUCLEAR WEAPONS?)

[The National Interest](#) ^ | December 31, 2018 | Kyle Mizokami



Israel's submarine corps is a tiny force with a big open secret: in all likelihood, it is armed with nuclear weapons. The five Dolphin-class submarines represent an ace in the hole for Israel, the ultimate guarantor of the country's security, ensuring that if attacked with nukes, the tiny nation can strike back in kind.

Israel's first nuclear weapons were completed by the early 1970s, and deployed among both free-fall aircraft bombs and Jericho ballistic missiles. The 1991 Persian Gulf War, which saw Iraqi Scuds and [Al Hussein](#) ballistic missiles raining down on Israeli cities, led Tel Aviv to conclude that the country needed a true nuclear triad of air-, land- and sea-based nukes to give the country's nuclear deterrent maximum flexibility—and survivability.

The most survivable arm of the nuclear triad is typically the sea-based one, consisting of nuclear-armed submarines. Submarines can disappear for weeks or even months, taking up a highly classified patrol route while waiting for orders to launch their missiles. This so-called "second-strike capability" is built on the principle of nuclear deterrence and ensures potential enemies will think twice before attacking, knowing Israel's submarines will be available to carry out revenge attacks.

The first three submarines were authorized before the Gulf War, in 1988, though it is not clear they were built with nuclear weapons in mind. After years of delays construction began in Germany instead of the United States as originally planned, with German combat systems instead of American ones. Most importantly, the project went ahead with German financing; Berlin reportedly felt obliged to finance two of the submarines, and split the third as lax German nonproliferation enforcement had partly enabled Iraq's nuclear and chemical weapons program.

The first three submarines, *Dolphin*, *Leviathan* and *Tekuma*, were laid down in the early 1990s, but

only entered service between 1999 and 2000. The submarines are 187 feet long, displace 1,720 tons submerged and have an operating depth of 1,148 feet. Sensors include the STN Atlas Elektronik CSU-90-1 sonar suite with the DBSQS-21D active and AN 5039A1 passive sonar systems. The *Dolphin* class also has PRS-3-15 passive ranging sonar and FAS-3-1 passive flank arrays.

Each has ten torpedo tubes in the bow, six standard 533-millimeter standard diameter tubes and four larger 650-millimeter torpedoes. The larger torpedo tubes are more than two feet wide, and reportedly double as ingress/egress chambers for divers. Armament is a mixture of German, American and Israeli weapons, including Seahake heavyweight wire-guided torpedoes and Harpoon antiship missiles. The authoritative *Combat Fleets of the World* claims the Dolphin subs may have the Triton fiber-optic guided-weapon system. With a range of more than nine miles, Triton allows submarines the ability to attack helicopters, surface ships and coastal targets.

The four large torpedo tubes are the key to Israel's sea-based deterrent, and without them it's unlikely the country would have nukes on submarines. The large tubes are used not only for laying mines and sending and receiving divers, but also to launch nuclear cruise missiles. In 2000, the U.S. Navy observed a missile launch from off the coast of Sri Lanka that traveled an estimated 932 miles. Exactly what this missile was is a matter of speculation, but the leading candidate is some advanced form of the Popeye missile.

Popeye was originally an air-launched ground-attack missile. Developed in the late 1980s, Popeye originally used a television camera or infrared seeker to deliver a 750-pound warhead to ranges of up to forty-five miles. The United States Air Force bought 154 Popeye missiles to arm B-52 bombers for conventional attacks, renaming them the AGM-142 Raptor. Israel's nuclear deterrent is thought to be based on cruise missile version of Popeye, Popeye Turbo, which has a turbofan engine for long-distance flight.

There is also the possibility the nuclear armament is based on the Gabriel antiship missile, and there are also reports that Harpoon missiles were modified to carry nuclear weapons. Nobody appears to know for sure what missile is operational, only that it was observed and that arming them with nuclear weapons is a logical conclusion. The yield of the nuclear warhead on these missiles is unknown, but estimates float around the two-hundred-kiloton mark, which would make them roughly fourteen times more powerful than the bomb dropped on Hiroshima.

Whatever the missile, a 932-mile range gives it the ability—just barely—to strike the Iranian capital of Tehran, as well as the holy city of Qom and the northern city of Tabriz, from a position off the coast of Syria. (Iran's pursuit of nuclear arms is likely the main and enduring driver of Israel's second strike capability.) That isn't an ideal firing position, and it's been seventeen years since the missile's first flight, so it's also reasonable to assume that the weapon's range has been extended to the point where it can launch against Tehran and even more Iranian cities from a relatively safe location.

Having three submarines in operation generally means at least one is at sea at any particular time, a necessity for a sea-based nuclear deterrent. The Dolphin class reportedly carries up to sixteen torpedoes and missiles; if the submarines' primary task is nuclear deterrence, half of its weapons space might be allocated for carrying nukes. The result is that at any given time Tehran is likely in the nuclear crosshairs of an Israeli submarine.

The second set of Dolphin submarines, *Dolphin II*, was ordered in the mid-2000s. These subs are virtually identical to the previous class except for the addition of a thirty-six-foot-long plug in the hull to accommodate an air independent propulsion (AIP) system, allowing the submarine to operate submerged for much longer periods than diesel electric subs without it. According to [Der Spiegel](#), the Dolphin II subs can stay underwater for up to eighteen days. In addition to a stretch



configuration and AIP, Dolphin IIs weigh approximately 20 percent more and have dedicated diver-lockout chambers.

The German government has just recently [given the go-ahead](#) for yet another set of three more Dolphins. These new submarines should be ready just as the three first-generation boats are aging out, ensuring that Israel has a fleet of six submarines available for the foreseeable future. Israel's sea-based nuclear deterrent is here to stay.

## Stratolaunch Abandons Launch Vehicle Program for World's Largest Airplane

By [Jeff Foust, SpaceNews Writer](#) | January 23, 2019 04:19pm ET



WASHINGTON — Stratolaunch, the company founded by the late billionaire Paul Allen, said Jan. 18 that [it is ending work on a launch vehicle](#) that would be flown on the company's giant aircraft.

In a statement to SpaceNews, a company spokesman said that the company was ending work on its own family of launch vehicles and would instead use its aircraft for launching small Pegasus XL rockets from Northrop Grumman. News of the change in plans [was first reported by GeekWire](#).

"Stratolaunch is ending the development of their family of launch vehicles and rocket engine," the spokesman said in an emailed statement. "We are streamlining operations, focusing on the aircraft and our ability to support a demonstration launch of the Northrop Grumman Pegasus XL air-launch vehicle." [[Stratolaunch Test Photos: The World's Largest Plane in Action](#)]

Advertisement

Stratolaunch made no mention of layoffs in its statement, but sources familiar with the company said they expected up to several dozen people to lose their jobs with the termination of the company's vehicle development effort

Stratolaunch is best known for its development of a giant aircraft that will be the largest in the world by wingspan. The twin-fuselage plane, with six jet engines, has carried out a series of taxi tests at the Mojave Air and Space Port in California, [most recently one Jan. 9 where it reached a speed of](#)

[nearly 220 kilometers per hour](#). In that test the plane's nose gear briefly left the ground in a "rotation authority maneuver" that suggested the plane was nearly ready for its first flight.

"Surpassed all expectations and met every test objective," Jean Floyd, president and chief executive of Stratolaunch, said of that taxi test [in a Jan. 11 tweet](#).

The company's plans for a launch system that would be ferried by the plane have gone through several changes. When Allen announced Stratolaunch in late 2011, the original design called for the plane to use a modified version of SpaceX's Falcon 9 rocket as the launch system.

The companies parted ways within a year, though, and Orbital Sciences (later Orbital ATK and now Northrop Grumman) replaced it with a vehicle called Thunderbolt that featured solid-propellant lower stages and an upper stage powered by an Aerojet Rocketdyne RL10 engine.

## Next Up

Stratolaunch, though, decided a few years later to discontinue that effort, seeing greater demand in small satellites that require smaller vehicles. In October 2016, Stratolaunch announced a partnership with Orbital ATK where it would use the existing Pegasus XL rocket on the plane. One concept shown by the company involved flying three Pegasus rockets at a time.

The company, though, had not lost interest in larger launch vehicles. The company hired a former NASA and SpaceX engineer as its vice president of propulsion in mid-2017, and [in September 2017 signed a Space Act Agreement with NASA's Stennis Space Center](#) to use propulsion test facilities there.

Stratolaunch didn't formally announce its launch vehicle development efforts until August 2018, when [it said it was developing what it called the Medium Launch Vehicle](#), capable of placing up to 3,400 kilograms into low Earth orbit with a 2022 first launch. The company also said it had concepts for a larger vehicle, able to place 6,000 kilograms into LEO, as well as a crewed reusable spaceplane.

Those vehicles would be powered by an engine the company was developing called PGA, which took its name from the initials of founder Paul G. Allen. The engine, using liquid oxygen and liquid hydrogen propellants, was intended to produce up to 200,000 pounds-force of thrust. In November, [Stratolaunch said it successfully test-fired the preburner](#), the smaller of two combustion chambers in the staged combustion engine.

However, [the death of Allen in October](#) from complications of non-Hodgkin's lymphoma raised questions about the future of Stratolaunch, which was effectively entirely funded by him. Allen's holding company, Vulcan Inc., said at the time that Allen drew up plans prior to his death for continuing his various ventures, but did not disclose them.

The announcement leaves Stratolaunch reliant on the Pegasus XL, a vehicle with a long record but little demand given its high prices. The company had argued that the ability to carry three Pegasus vehicles on a single flight would allow it to deploy a constellation of satellites into different orbital planes, since the aircraft could change its trajectory as needed. That flexibility may not be sufficient, though, given the rise of a new generation of commercially developed small launch vehicles with much lower prices.

In its statement, Stratolaunch reiterated that it would continue tests of its aircraft. "We are immensely proud of what we have accomplished and look forward to first flight in 2019," the company spokesman said.

## TELETANKS

**Teletanks** were a series of wireless [remotely controlled](#) unmanned [tanks](#) produced in the Soviet Union in the 1930s and early 1940s so as to reduce combat risk to soldiers. They saw their first combat use in the [Winter War](#), at the start of [World War II](#). A teletank is controlled by radio from a control tank at a distance of 500–1,500 metres, the two constituting a *telemechanical group*. Teletanks were used by the Soviet [Red Army](#) in the Winter War, fielding at least two teletank battalions at the beginning of the [World War II on Eastern Front](#).

Teletanks were equipped with [DT machine guns](#), [flamethrowers](#), smoke canisters and sometimes a special 200–700 [kg](#) time bomb in an armoured box, dropped by the tank near the enemy's fortifications and used to destroy bunkers up to four levels below ground.<sup>†</sup> Teletanks were also designed to be capable of using [chemical weapons](#), although they were not used in combat. Each teletank, depending on its model, was able to recognize sixteen to twenty-four different commands sent via radio on two possible frequencies to avoid interference and jamming. Teletanks were built based on [T-18](#), [T-26](#), [T-38](#), [BT-5](#) and [BT-7](#) tanks.

Standard tactics were for the TU control tank (with radio transmitter and operator) to stay back as far as practicable while the teletank (TT) approached the enemy. The control tank would provide fire support as well as protection for the radio control operator. If the enemy was successful at seizing the teletank, the control tank crew was instructed to destroy it with its main gun. When not in combat the teletank was driven manually. In addition to teletanks, there were also remotely controlled telecutters and teleplanes in the Red Army



Shot-up TT-26 remotely controlled tank (teletank) with TOZ-IV telematics equipment from 217th separate tank battalion of 30th tank brigade. Two antenna leads on the turret roof and two-colour camouflage of the vehicle are visible. [Karelian Isthmus](#), February 1940.

