



Missions for America

*Semper vigilans!  
Semper volans!*

## The Coastwatcher

Publication of the Thames River Composite Squadron  
Connecticut Wing  
Civil Air Patrol

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### CADET MEETING MINUTES

*29 March, 2016*

*submitted by*

*C/MSgt Benjamin Ramsey*

The usual activities of drill, sign-in, and inspection opened the meeting.

C/2dLt Daniel Hollingsworth presented a safety lecture on the dangers of lightning.

C/2dLt Michael Hollingsworth briefed the Cadets on line searches and what must be done when a missing person or downed aircraft is found.

Cadets worked on the rockets which they are preparing for the Commander's Cup competition in May.



*Cadets on the Parking Lot Drill Field*

### SENIOR MEETING MINUTES

29 March, 2016

*submitted by*

*Maj. Marcus Reno*

Senior members met for dinner, discussed squadron issues, and did some hangar flying.

### AEROSPACE CURRENT EVENTS

#### *New Tower Lighting*

A slight revision in the lighting patterns at towers around the country has the potential to save the lives of thousands of birds, the FAA says. Research by wildlife biologists has concluded that birds are particularly attracted to steady white and red lights, much more so than to flashing lights of the same kind.

An independent study by the FAA that compared traditional steady-burning lights with that of flashing lights produced similar results.

“The results showed that the new configurations that featured flashing lights provided acceptable warnings for pilots and would likely result in a significant decrease in bird fatalities,” a statement from the FAA said.

As a result, new installations of tower lighting will include the flashing lights and operators of towers with old lighting systems will be required to follow the new recommendations.

March 2016						
SUN	MON	TUE	WED	THU	FRI	SAT
		1	2	3	4	5
6	7	8 CC CALL	9	10	11	12
13	14 Canada	15 Canada	16 Canada	17	18	19 OFlight CTWG TRAEX
20	21	22	23	24	25	26 OFlight Rifle
27 Easter	28	29	30	31		

April 2016						
SUN	MON	TUE	WED	THU	FRI	SAT
<i>Encampment Staff deadline April 1st</i>					1	2
3	4	5	6	7 NER AEO	8 NER AEO	9 NER AEO
10	11	12 CC CALL	13 Airport Emer Plan 0930	14	15	16 OFlight Rifle(NotCAP)
17 Week of Spring Break	18	19 No Meeting	20	21	22	23 SQ SAREX
24	25	26	27	28	29	30 Comm CW16 STEM

May 2016						
SUN	MON	TUE	WED	THU	FRI	SAT
1 Comm CW16	2	3	4	5	6	7
8	9	10 CC CALL	11	12	13	14 Glider CTWG TRAEX
15 Glider	16	17	18	19	20	21 OFlight Rocket Contest
22	23	24 Spring Clean	25	26	27	28 Rifle
29	30	31 FUN	<i>Rocket Contest 21 May</i>			

June 2016						
SUN	MON	TUE	WED	THU	FRI	SAT
			1	2	3	4
5	6	7	8	9	10	11 Rifle
12	13	14 CC CALL	15	16	17	18 OFlight
19	20	21	22	23	24	25 OFlight
26	27	28	29	31	SUI SEP 16th Groton Aviation Aug 19th	

### Integrity

Date	Senior	Cadets
1	Planning - Sq staff mtg	Testing, admin, Planning (civies)
8	Commanders Call	Drill, Safety, CD, Leadership, Promo (Blue)
15	Canada Visit	Canada Troop - Special Activity (BDU)
<b>Visit of Canadian Cadets</b>		
22	PD - Personnel/ES - KLN89 GPS	Fitness, Ground Team (PT)
26	OFlight	OFlight
29	Dinner 6-8 Beacon Schmidt (civ)	Drill, Rocket (BDU)

### Volunteer Service

Date	Senior	Cadets
2		STEM: Helicopter
5	Planning: Staff Mtg	Leadership, testing, rocketry (civies)
12	Commander's Call / Promotions	Drill, CD, AE, Promotions (Blues)
13	Airport Emergency Plan 0930 Rocketto/ Francisco	
16		Oflights Rifle (not a CAP event )
19		No meeting
23		SQ SAREX
26	CAP History, PAO Brief	Fitness, Safety, Rocketry, ES (BDU)
30		STEM: Flight Simulator
30	Communication Exercise CW 16	

### Respect

Date	Senior	Cadets
3	Planning / Staff	Leadership, Testing, Admin (civies)
10	Commanders Call	Drill, Insp, Sfty, CD, Lead, Promo (Blues)
17	ES - LISP Plan, Ditching	Drill, Insp, AE, ES, DDR, Guest Speaker (BDU)
21		Commanders Cup Rocketry Contest
24	Spring Clean (Crandall)	Fitness, Safety, flight time (BDU)
31	Lobster Fest - Neilson	Fun night
28	CTWG Rifle Program to qualify for marksmanship ribbon	
14/15	<b>Glider Weekend- POC? CIC?</b>	

### Excellence

Date	Senior	Cadets
7	Staff Meeting	
11		Rifle
14	Commanders Call	
21	ES	
28		

This schedule is not a replacement for good communications.

## FIRST 2016 CTWG RIFLE AND SAFETY MARKSMANSHIP SESSION

Forty five Cadets from Danielson, East Granby, Danbury, Meriden, Hartford and Groton met at the Quaker Hill Rod and Gun Club on Saturday, the 26<sup>th</sup> of March to learn firearms safety and marksmanship skills.

After a safety briefing and an explanation of the technical aspects of marksmanship, the Cadets commenced firing from the prone position on the 50 foot indoor range. The program lasted for five hours and every cadet was offered a chance to shoot at least once.

Two-thirds of the Cadets fired well enough to earn a Winchester-NRA medal which can be worn on their blues. Three who had participated last year were advanced enough to receive instruction in the sitting position.



*C/SMSGT Hannah  
Ramsey prepares to  
fire from the sitting  
position.*

Success depended not only on the enthusiasm of the Cadets but also on the volunteer contributions by the adults. The senior members who brought the cadets scored targets and issued equipment. Nine coaches were on the line. Two of them have won national championship. Three of them have been member of national teams and six are or have been on Connecticut state teams. Three of the coaches work with high school teams and one is a college coach.

The program was free thanks to the generosity of the Quaker Hill Rod and Gun Club which donated range time and equipment and the New London

County Friends of the NRA and paid for the ammunition and targets.

The planned sessions on 28 May and 11 June have been cancelled due to conflicts with other activities. They will be rescheduled as soon as range time is secured.

## AEROSPACE HISTORY

### *ATTACK AIRCRAFT (Part I-Pistons)*

The definition of an attack aircraft is not only vague but ambiguous. They are employed tactically to destroy ground targets either in the role of close air support (CAS) or deep air support (DAS). CAS is carried out to directly support forces on the ground. Troops in contact (TIC) with enemy forces can call in aircraft which will closely coordinate with them. The CAS is generally coordinated by the TIC, either by a forward air controller (FAC) who might be orbiting in a spotter plane or might be embedded with the TIC.

DAS attempts to help ground forces by disrupting supply lines at some distance behind the front. The disruptions could be attacks on transport or destruction of supply dumps. However, there is no close relationship with ground forces as with CAS.

The vagueness is a result of the missions which may be carried out by disparate aircraft. For example, a strategic bomber such as a B-1 or B-52 might employ precision munitions in a close support role or for air interdiction. The ambiguity is results from the designations applied to the aircraft. Fighters have a history of employment in the CAS mission. USMC F4U Corsairs provided CAS in the Pacific in World War II and in Korea. In Europe, the tough P-47 Thunderbolt, another fighter found an important role in DAS and the U.S. Navy employed their dive bombers and torpedo planes to attack maritime and land targets.

The United States military is unusual in that it uses the letter “A” to specifically denote aircraft which are used as attack planes. This essay will discuss a number of Air Force, Navy, and Marine aircraft which carry the “A” prefix or carry other designations but serve primarily for either CAS or DAS. One source listed around 75 U.S. military as attack aircraft but as winnowing of the list to about 20. The criteria used is that the aircraft have seen combat and established a record for delivering ordnance for CAS or DAS.

### *Northrop A-17 Nomad*

The A-17 was a military development of the Northrop Gamma series. Its primary combat experiences were with foreign air forces. In 1941, Peru used them against Ecuador. Most of the Dutch aircraft were destroyed in 1940 when the Germans invaded. The Royal Air Force fought Iraq in 1940 and they suffered the same fate as the Dutch Nomads.

The Nomad carried a pilot and a gunner who manned a defensive position facing the aft end. It had a bomb bay and external racks and carried could carry around a 1,000 pounds of bombs and was equipped with four fixed .30 caliber machines guns firing forward.



*Nomad at the Air Force Museum. Note the dive brakes and the bomb sight forward of the canopy.*

### *Douglas A-20 Havoc*

Three great aircraft designers collaborated to produce the Havoc: Donald Douglas, Ed Heinemann, and Jack Northrop. The aircraft was extremely versatile and served not only in the attack role but as a light bomber and night fighter. The narrow fuselage carried a pilot, observer, and

gunner.

In the attack mode, the glazed nose was replaced by a solid nose housing six to twelve .50 caliber machine guns. Three other .50s for defense were carried in a dorsal turret and a ventral housing. Another version was fitted with four 20mm cannons and two .50 caliber machine guns. The bomb bay could house up to a ton of bombs. One unusual bomb was the parafrag, dropped from very low altitude and slowed by a small parachute which allowed the bomber to escape the blast. They were most often used to destroy parked aircraft or aircraft in revetments.



*(Above) Little Joe displays over 120 mission marks. (Below) The six nose guns and the defensive turret are clearly shown in the Air Force photo.*



### *Douglas SBD Dauntless and A-24 Banshee*

A second Ed Heinemann project the Dauntless was a highly effective Navy dive bomber used successfully in the Pacific Theatre of World War II. Their most famous operation was at the Battle of Midway where the Dauntless's sank four Japanese aircraft carriers. Around 6,00 were built,

mostly assigned to the Navy or Marines and the

Army Air Force used about 900 which they name the A-24 Banshee.



*(Above) The A-24 in Army Air Force Livery.  
(Below) An SBD-2 at the Navy museum at Pensacola.*



Most of them were equipped with a pair of .50 caliber machine guns in the nose and a pair of flexible .50s in the rear of the cockpit and operated by a gunner. The payload was just over a ton of bombs.

#### *North American B-25 Mitchell*

The Mitchell is best known as the type flown by the Doolittle Raiders in the first attack on the Japanese home islands. Created as a medium bomber, the Mitchell, North American failed to gain a government contract when the A-20 Havoc

was chosen but the production ramp-up as World War II started brought it back and about 10,000

were produced by the end of the war.



*A Canadian B-25J, which they called the Mitchell III, bears the white and black recognition stripes used on allied aircraft during and immediately after the Normandy invasion.*



*Devil Dog, a USMC PBJ-1J (B-25J) carried 12 forward firing .50 caliber machine guns. Eight were mounted in the nose and four others in two blisters on each side of the fuselage. The aircraft could also carry 5 inch rockets on wing hard points. By the end of the war and then in Korea, the aircraft could carry the 11.75 inch Tiny Tim rocket for use against large ground targets and ships.*

But its DAS and CAS missions, especially in the Pacific. B-25s used skip bombing techniques against maritime shipping and low level attacks on airfields and troop concentrations. In this mission, The -G and -H series Mitchell carried as many as 12 fixed forward firing machine guns, eight in the nose and a pair, each mounted in two blisters on the side of the fuselage. A 75 mm cannon was also fitted but the rate of fire was so slow that it proved ineffective. A ton and a half of bombs, five

inch rockets, or a torpedo could also be carried.



*A nose on view of Dog Daize, a B-25H at the New England Air Museum displays four machine guns and the belted ammunition and the muzzle of the 75mm cannon*

### *North American A-36 Apache*

The Apache was a modification of the P-51 Mustang. The major modification consisted of air brakes mounted above and below the wing. The air brakes were used to keep the airspeed down during when dive bombing. The 1,000 pound bomb payload were mounted on wing pylons.



*A-36 Apache at the USAF Museum, Wright-Patterson Air Force Base, Ohio.*

The Apache used the Allison V-12 rather than the Rolls-Royce Merlin which was fitted to most Mustangs. However, like the Mustang, the Apache's liquid cooled engine and the ventral position of the radiator and cooling system made her very vulnerable to ground fire.

### *Republic P-47 Thunderbolt*

The largest of U.S single engine WW II fighters was powered by the legendary Pratt & Whitney

R2800 air cooled engine. The air cooled engine eliminated the vulnerability to ground fire, a weakness of the P-51/A-34 aircraft. The engine and airframe were rugged and could absorb major battle damage. One story states that a Thunderbolt returned to base with one cylinder shot of the engine.

Led by Lt. Col. Francis Gabreski, after whom the Suffolk County Long Island Airport, the Thunderbolts of the 56<sup>th</sup> Fighter Group racked up the highest number of air-to-air victories in the war.

But the Thunderbolt also shined as a ground attack aircraft. The long range P-51 assumed the role of bomber escorts which freed the shorter legged Thunderbolt for ground attack missions. Their eight .50 caliber machine guns and 2,500 pounds or 10 5 inch rockets made the Thunderbolt a fearsome DAS aircraft especially against rail and vehicular traffic and supply dumps.



*P-47D Rugged for the ground attack mission.*

### *Vought F4U Corsair*

The hallmark of the Corsair is its inverted gull wing. This configuration allows for a shorter more rugged landing gear needed for carrier operations and provides clearance for the very large propeller. Although designed as a fighter, the U.S.M.C used it as an effective CAS plane in both World War II and Korea. The Corsairs acquired by the French were similarly employed in the first Indochina War and in the many North African colonial campaigns. Corsairs were generally armed with six .50 caliber machine guns or four 20mm cannons and up to two tons of rockets

and bombs.



*F4U-N at Quantico's U.S.M.C museum*

During the Korean War, most Marine Corsair squadrons flying variants of the F4U-5 were heavily invested in CAS. The F4U-6, also known as the AU-6 was a specific aircraft dedicated for CAS missions. The cockpit and fuel tanks were armored, important systems were relocated to less vulnerable places, and extra ordnance racks were installed. The payload exceeded 8,000 pounds of ordnance!



*F4U-5N at the Flying Leatherneck Museum, Mirimar, California.*

About 12,500 Corsairs were produced by Vought, Goodyear, and Brewster and the F4U enjoyed the longest production run of any U.S. Fighter, eleven years.

### *Douglas A-26/B-26 Invader*

Another Ed Heinemann design, the Invader, the light bomber version came with a clear nose but

the attack version carried up to fourteen machine guns in the nose and wings. Two tons of bombs and rockets could also be carried. The Invader's primary role was DAS with attacks on airfields, transportation nets, and supply dumps.



*A-26B of the Virginia Air National Guard*

She served in three U.S. Wars ; the latter part of World War II, Korea, and the Second Indochina War. Castro's Cubans and CIA pilots from the Alabama Air National Guard fought over the Bay of Pigs invasion beach.

The change from A-26 to B-26 created some confusion with the Martin B-26 Marauder. And in 1966, the B-26K was renamed the A-26A for political reasons. The United States was basing them in Thailand for DAS missions along the Ho Chi Minh Trail and Thailand would not allow bombers to be based in their country, a legal fiction which fooled no one.



*B-26K (A-26A) at the Air Commando Museum, Hurlburt Field, Florida.  
Lockheed AP-2H Neptune*

The Neptune was conceived by the Navy as long range patrol bomber and anti-submarine aircraft. The new system of designating aircraft which the Department of Defense mandated in 1962 changed a modified version of the P2V-7 to the AP-2H.

Modifications included a forward looking infrared system and a low light level television, a grenade launcher, and a vertically mounted mini-gun in the belly. The mission, flown by Observation Squadron 67 (VO-67) was night interdiction of the North Vietnamese supply route called the Ho Chi Minh Trail. They also supported Igloo White by sowing seismic and acoustic sensors along the trail. Four aircraft and 20 crewmen were lost during these highly dangerous missions and VO-67 was the only Neptune squadron ever to receive a Presidential Unit Citation.



*AP-2H at Pima*

*Douglas AD Skyraider*

The Skyraider is the fourth Heinemann design reviewed in this article. The original designation, AD, for "Attack-Douglas led to it being called the "Spad." Too late to see service in World War II, the Skyraider did yeoman's service in Korea and Vietnam. Both carrier and land based and used by both the Navy and the Air Force. She carried four 20mm cannons and up to 8,000 pounds of bombs and rockets. Two different styles of canopies. A bubble canopy graced the earlier models and a greenhouse style was used on the latter series.



*A-1H displays ordnance and 20mm cannons*

As a close air support aircraft, the Spad was unequalled. Not only did it carry a wide variety of ordnance but her loiter time was measured in hours, not minutes like the contemporary jets. Using the call sign "Sandy," the planes of the 602 Special Operations Squadron became famous for flying combat search and rescue missions escorting helicopters and suppressing enemy ground activity.



*A-1H at Pensacola. Note the rocket canister outboard of the bombs.*

In 1951, Navy Skyraiders off the U.S.S. Princeton made the last torpedo attack by U.S. military aircraft against the Korean Hwachon Dam. In 1966, a U.S.A.F A1-E Skyraider piloted by Maj. Bernie Fisher rescued Maj. D.W. Myers whose Skyraider has crashed on an abandoned 2,500 foot airstrip. Enemy troops closed in for the capture but Fisher, covered by the four remaining planes of his flight, landed and picked his squadron mate up. For this act of conspicuous gallantry and intrepidity at the risk of his life above and beyond the call of duty, Fisher was awarded the Medal of Honor.



*USAF A-1E at the U.S.A.F Museum displays ordnance and its 20mm cannons.*