



Missions for America

*Semper vigilans!*  
*Semper volans!*

## The Coastwatcher

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

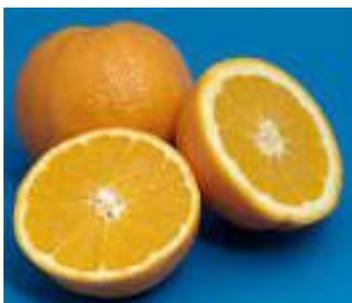
300 Tower Rd., Groton, CT  
<http://ct075.org>

Lt Col Stephen Rocketto, Editor  
[srocketto@aquilasys.com](mailto:srocketto@aquilasys.com)  
Lt Col John deAndrade, Publisher

C/CMSgt Michael Hollingsworth, Cadet Reporter  
Lt David Meers & Maj Roy Bourque, Papparazis  
Hap Rocketto, Feature Editor

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### **FRUIT SALE VOLUNTEERS NEEDED**

Fruit delivery is planned for Friday, 11 December at 1800. The fruit will be delivered to Grasso Technical High School, our sales partners, inventoried, and then transferred to Thames River

Composite Squadron. The task should take about three hours.

Able bodied volunteers and needed and parents and officers with trucks or vans are needed. Even our aged pelicans and the walking wounded can assist coordinating the work crews and conducting the inventory.

If the fruit is delivered on time, sales personnel need to notify their buyers. At the present time, we plan to distribute the fruit on Saturday and Sunday, times to be determined.



### **CADET MEETING MINUTES**

*08 December, 2015*

*submitted by*

*C/CMSgt Daniel Hollingsworth*

Mr. Graeme Smith presented a 90 minute lecture on the Battle of Britain and his recent experiences flying a Tiger Moth, Harvard, and Spitfire.

C/SSgt Sitz presented a short aerospace lesson on aircraft icing.

An awards ceremony was held for Squadron members who participated in this summer's USAF evaluation.

December 2015						
SUN	MON	TUE	WED	THU	FRI	SAT
		1	2	3	4	5 UCC/TLC
6 UCC/TLC	7	8 CC CALL WW2 Speaker	9	10	11 Fruit Delievery	12 SQ SAREX
13	14	15 Party	16	17	18	19
20	21	22 No Meeting	23	24	25 Cmas	26
27	28 OFlight	29 OFlight No Meeting	30 OFlight	31		

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

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

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	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

**Volunteer Service**

Date	Senior	Cadets
1	Staff Planning, Special Speaker	Drill, Leadership, admin, DDR/Safety(BDUs)
5,6	UCC and TLC (Camp Niantic)	
8	Commander's Call / Promotions	Drill, CD, AE, Promotions (Blues)
12	Sarex	Sarex
13	Wx Backup	
15	Holiday Party (Civies/Pot Luck/1800)	

**Respect**

Date	Senior	Cadets
5	Planning / Staff	Leadership, Testing, Admin (civies)
12	Commanders Call	Drill, Insp, Sfty, CD, Lead, Promo (Blues)
19	Emergency Service	Drill, Insp, AE, Guest Speaker, P (BDU)
26	Open	Drill, Insp, Fitness, Special Activity (PT)

**Excellence**

Date	Senior	Cadets
2	Planning / Staff	Leadership
9	Commanders Call	
16	Emergency Service	
20	SQ SAREX	SQ SAREX
23		

**Integrity**

Date	Senior	Cadets
1	Planning	Testing, admin, Leadership, PT if needed
8	Commanders Call	Drill, AE Pres, Char Dev, Guest, Promo
15	ES	
22	no meeting	Field Trip - CGA?
24	OFlight	OFlight
29	TBD	TBD

This schedule is not a replacement for good communications.

Other Ground Tranex O-Flight Meeting Wing National

## SENIOR MEETING MINUTES

*08 December, 2015*

*submitted by*

*Major J. Scott Farley*

*Commander's Call*

The Squadron staff assignments for 2016 have been made and will be published.

The Squadron Goals and Focus have been agreed to and will be published.

Fruit delivery is scheduled for 1800 on Friday at Grasso Technical High School. An e-mail notification will be sent out as soon as we receive an exact time. Lt Col deAndrade stated that all-hands will be needed. Members with trucks and vans are also required to transfer the fruit to the Squadron.

The Squadron is planning to fly some of our local legislators as part of the Wing's legislative awareness program. Paperwork is being processed.

Orientation flights are scheduled for 28-30 December.

The calendar, found on page two of this edition has been updated. Emergency services is a standing training session on the third week of a month.

The phone tree will be exercised quarterly and will be used to determine attendance for the Squadron's holiday party.

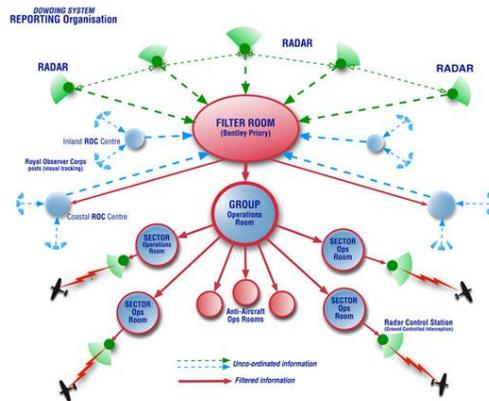
A SAREX training aircrew will be held on Saturday, the 12th, starting at 0800.

A Squadron Communications Committee will review of website and face-book pages and propose a plan for improving their quality and maintaining their currency.

## SPECIAL GUEST SPEAKER

Mr. Graeme Smith, a aviation enthusiast residing in Newport, Rhode Island delivered a 90 minute talk about the importance of the Battle of Britain. His presentation also related his experiences about learning to fly and fulfilling a long-term dream, to fly a Spitfire.

The lecture used photographs, video, and artifacts to outline the critical position faced by Britain in 1940 when the Luftwaffe attempted to gain air superiority prior to launching a seaborne invasion. Hugh Dowding, Air Officer Commanding Fighter Command, started during the pre-war period to develop an air defense system to stop bombers. This system of command and control was a major contributor to the RAF's victory over the *Luftwaffe*.



*A diagram for the RAF Museum explains the command and control system during the Battle of Britain.*



*Mr Smith presents A picture of the plotting board and squadron status board in an RAF Sector Station.*

Members and earned the Yeager Ribbon.

Most of the artifacts consisted of the clothing worn by RAF pilots to protect them from the cold and from fire. A silk scarf to prevent the neck from chafing, heavy naval sweaters and socks for warmth, leather gauntlets, and leather flying boots were shown and their advantages and disadvantages explained.



*A leather helmet was used to hold the radio headphones in place. The goggles and sun shield protected the eyes.*

Smith also showed one of the first transponders, a device used to keep British ground controllers advised of the location of the interceptors. He explained how data from a well-constructed network of radar and ground observers tracked the German bombers and directed the Hurricanes and Spitfires to advantageous attack positions.



*Smith explains the clockwork mechanism of the early transponder.*

## KUDOS

SM Steven Schmidt has completed the Level One orientation course and has been awarded the Membership Ribbon. Schmidt has also completed the Aerospace Education Program for Senior



*Schmidt reports for his awards.*

Cadets Benjamin Ramsey, Hannah Ramsey, and Daniel Ramsey received certificates, tee-shirts, and computer devices for their participation in the cyber security contest.



*Lt Col deAndrade presents a certificate to Cadet Daniel Ramsey while Benjamin Ramsey, Hannah Ramsey, and Alec deAndrade look on.*

Achievement Ribbons were awarded to both Seniors and Cadets for their participation in the USAF evaluation in August.



Awardees are SM Schmidt, Maj Lintelmann, Maj Farley, Lt Col deAndrade, Maj Bourque. and Cadets Michael Hollingsworth, Daniel Hollingsworth, John Meers, Alex deAndrade, and Lt David Meers

### TRCS DEMONSTRATES SAR SIMULATOR TO WING COMMANDER

Col Kenneth Chapman visited Thames River on Saturday, December 5th to see a demonstration of a MÄK Search and Rescue Simulator. The system contains a number of interconnected stations: instructor console, pilot and observer controls, and a ground team. The stations were located in different rooms so all communications were done by radio, as it would be in a real or training SAR exercise. Computer screens and virtual reality goggles provide data input which represents the aircraft controls, ground team vehicle controls and teams on foot. The instructor can program an SAR problem and the air and ground teams plan and launch the mission.



*Wing Commander Chapman observes as Capt Richard Kornutik uses the virtual reality goggles and Lt Meers controls the displays.*

*SM Schmidt sits at the controls and display for the ground vehicle.*



The obvious advantage of the MÄK system is that once initial costs are depreciated, training costs are minimal as compared to flying aircraft and deploying ground teams. Additionally, training can be conducted at night or during bad weather periods. Participants noted that one of the most valuable skills which are practiced is inter-team

communications.

One plan might be to install a system in each CAP wing. Next month, John Desmaris and officials from the Operations office at Maxwell AFB are scheduled to visit and view the system in operation.

### TRCS CYBER SECURITY TEAM

Thames River's cyber security team held their first practice session on December 5th. The competition is sponsored by the Air Force Association and open to CAP units, public and private schools. Program goals are to motivate youth to develop skills useful in career opportunities in engineering, science, and mathematics and ultimately fill positions protecting cybernetic systems of our military and industrial organizations. The military arm is known as the U.S. Cyber Command and U.S.A.F airmen and officers as associated with the 24th Air Force and its subordinate units.

Each month, team members are presented with problems relating to cyber security. The Air Force Association describes the program in the following way.



*Cyber Security team members deAndrade, Daniel Ramsey, and Benjamin Ramsey ponder a problem.*

The teams are placed in the ...position of newly hired IT professionals tasked with managing the network of a small company. In the rounds of competition, teams are given a set of virtual images that represent operating systems and are tasked with finding cybersecurity vulnerabilities

*within the images and hardening the system while maintaining critical services in a six hour period.*

*Teams compete for the top placement within their state and region, and the top teams in the nation earn all-expenses paid trips to Baltimore, MD for the National Finals Competition where they can earn national recognition and scholarship money.*

The TRCS team consists of Cadets Hannah, Benjamin, and Daniel Ramsey and Alex deAndrade. Senior mentors are Lt David Meers and Lt Col John deAndrade.

*JetBlue Embraer  
ERJ-190-100*



JetBlue anticipates that a graduate will be qualified for a line pilot position in about five years. As with most *ab initio* programs, the student bears a heavy burden of the costs.

## AEROSPACE CURRENT EVENTS

### *Ab Initio Pilot Training Gaining Popularity*

*Ab Initio* training refers to a training program which starts "from the beginning." Rather than take a candidate for an airline pilot position who has been trained to fly by the military or worked his way up as a flight instructor or freight dog, some flight schools and airlines will take a person with no flight experience and train them from the ground up. One of the leading companies in the field is Canadian based CAE with a world-wide network of training academies. The University of North Dakota is one example of training available at an university. Airlines such as Lufthansa run *ab initio* programs.

JetBlue has just announced that they will initiate their own training program. Carefully selected candidates will attend a simulator program and gain early exposure to multi-crew multi-engine concentrate on airline related tasks such as crew resource management and emergency decision making. Upon completion of ground school, successful students will work for a JetBlue partner company such as Florida based Silver Airways and gain the flight experience in a commuter airliner until assignment to an Embraer ERJ-190.



*Silver Airways  
Saab 320*

## AEROSPACE HISTORY

### *Battle of Britain*

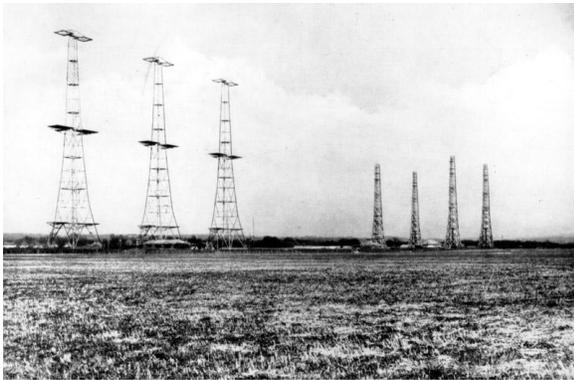
Arguably, the two most crucial battles fought by the United Kingdom and its allies in World War II were the Battle of the Atlantic and the Battle of Britain. Losing the Battle of the Atlantic, fought from September of 1939 to April of 1945, would have ended vitally needed food, weapons, and fuel shipments, to the British ports. At a minimum, one billion pounds of material were needed each week in order to survive. And the invasion of North Africa, Italy, Normandy required even more supplies and troop transport. Improved tactics, weaponry, and technology led to victory and the defeat of the Axis.

The Battle of the Atlantic was prior to, concurrent with, and continued for four years after another battle, the Battle of Britain, waged for three and a half months from 10 July to 31 August, 1940. In the skies over Britain, improved technology, weapons, tactics and weaponry, led to the defeat of the Luftwaffe and the survival of the island nation. If Germany had gained air supremacy by winning the Battle of Britain, Nazi air power, could cripple the Royal Navy, the last line of defense against invasion.

Should the invasion occur, the very last line of defense was tissue thin. That Churchill proclaimed that the invaders would be fought on the beaches, landing grounds, fields, streets, and hills were inspirational but the fact remains that the army had

left most of its equipment on the beaches at Dunkirk. It is said that when the speech ended, Churchill, sotto voce, whispered to a colleague, "And we'll fight them with the butt ends of broken beer bottles because that's bloody well all we've got!"

But RAF Command led by Air Chief Marshal Hugh Dowding stood ready. Although somewhat weakened by prior losses in the Battle of France and outnumbered in the air by a four to one ratio, The RAF possessed a qualitative advantage based on the Chain Home radar system, a high aircraft production rate, and a superb aircraft repair system



Chain Home receiving antennae in the foreground and transmitting antennae in the background. (Credit: RAF Museum)

The radar and a ground observer corps provided intelligence about incoming raiders which were processed by upper level command facilities and relayed to fighter controllers at the sector stations in order to deploy defending forces efficiently.



*A photo of a typical sector control room. Supervisors are to the left, the plotting board and crew are center, and the squadron status board is shown on the top right. (Credit: Air Defence Radar Museum)*

Aircraft production and repair, under the control of a Canadian, Max Aitken, 1st Baron Beaverbrook, not only doubled the production rate of fighters but also established aircraft repair facilities which returned almost 2,000 damaged aircraft to the fray.

A major problem faced by the RAF was the short supply of trained fighter pilots. But the training system, the RAF Reserve, and foreign and Commonwealth volunteers filled the gap. Twenty percent of Fighter Command consisted of these volunteers predominately Poles, New Zealanders, Canadians, and Czechs.

The main thrust of the German bombing campaign was aimed at southeastern England, protected by 11 Group under the command of Air Vice Marshall Keith Park. His fighter force consisted of RAF Hawker Hurricanes and Supermarine Spitfires.



*Hurricane Mk.IIa*



*Spitfire Mk.I*

These were countered by Messerschmidt's Bf 109s escorting the bombers, predominately the Heinkel 111, Dornier Do 17, and Junkers Ju 88.



*An Me 109E in a diorama depicting its crash landing in England.*

*A formation of He 111 bombers (Credit Imperial War Museum)*



*The Do 17 or Fliegende Bleistift (Flying Pencil)*

*(Credit: Bundesarchiv)*



*A Junkers 88 D-1 bomber whose versatility made it a multi-role aircraft.*

The battle commenced when the Luftwaffe starting attacking British shipping in the English Channel. The campaign was moderately successful and coastal shipping was disrupted, forcing the British to rely upon the less efficient railroads.

On 13 August, Adlertag (Eagle Day), the Luftwaffe started the second phase of the campaign attacking the air defense system, fighter fields and radar stations. The German bomber forces suffered significant casualties which led to the abandonment of the attacks on airfields and the commencement of bombing attacks on cities.

The experts dispute over the effectiveness of the the airfield attacks. One claim is that the British air defense was "on the ropes" and critically hurt. Another opinion is that the German tactics were relatively ineffective. Heavy casualties were taken by both sides but the German switch in tactics, the bomber campaign, may have been a major mistake. The RAF was given time to recover and strengthen fighter command

German bombers attacked British cities but targeting cities such as London forced the bomber escorts to fly to the very limits of their range which exposed the bomber force to the RAF interceptors. Daylight raids proved too costly so the Luftwaffe switched to night bombardment.

Tactical mistakes by German intelligence, the decision to attack cities rather than RAF airfields and radar sites, combined with heavy aircraft and aircrew losses led to a failure to achieve air superiority over Great Britain and

The German High Command cancelled invasion plans and in late September, the landing in England were indefinitely postponed and he landing barges and ground unit dispersed.

The casualties on both sides were heavy but England survived and became a base for the bombing of German military and industrial targets and an allied invasion of Europe.

The outnumbered forces of Fighter Command were commemorated by Churchill on the 20th of August, 1940 in a speech to the House of Commons.

*The gratitude of every home in our Island, in our Empire, and indeed throughout the world, except in the abodes of the guilty, goes out to the British airmen who, undaunted by odds, unwearied in their constant challenge and mortal danger, are turning the tide of the World War by their prowess and by their devotion. Never in the field of human conflict was so much owed by so many to so few.*